

# Tables of sizes of small complete arcs in the plane $PG(2, q)$ , $q \leq 410009$

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## Abstract

In the projective planes  $PG(2, q)$ , we collect the smallest known sizes  $\bar{t}_2(2, q)$  of complete arcs for the region

$$T = \{2 \leq q \leq 49727, q \text{ power prime}\} \cup \{2 \leq q \leq 150001, q \text{ prime}\} \cup \\ \{40 \text{ sporadic prime } q's \text{ in the interval } [150503 \dots 410009], \text{ see Table 6}\}.$$

Basing on the collected sizes we obtain the following upper bounds on the smallest

size  $t_2(2, q)$  of a complete arc in  $PG(2, q)$ .

$$t_2(2, q) \leq 1.745\sqrt{q \ln q}, \quad q \in T.$$

$$t_2(2, q) \leq \sqrt{q} \ln^{0.7295} q, \quad q \geq 109, \quad q \in T.$$

$$t_2(2, q) \leq \sqrt{q} \ln^{f(q)} q, \quad f(q) = \frac{0.27}{\ln q} + 0.7, \quad q \in T.$$

$$t_2(2, q) \leq 0.6\sqrt{q} \ln^{\varphi(q)} q, \quad \varphi(q) = \frac{1.5}{\ln q} + 0.802, \quad q \in T.$$

Our researches and results allow us to conjecture that these bounds hold for all  $q \geq 109$ .

**Mathematics Subject Classification (2010).** 51E21, 51E22, 94B05.

**Keywords.** Projective plane, complete arcs, small complete arcs

## 1 Introduction

Let  $PG(2, q)$  be the projective plane over the Galois field of  $q$  elements. An  $n$ -arc is a set of  $n$  points no three of which are collinear. An  $n$ -arc is called complete if it is not contained in an  $(n+1)$ -arc of  $PG(2, q)$ . For an introduction in projective geometries over finite fields see [43, 61, 62].

In [45, 46] the relationship among the theory of  $n$ -arcs, coding theory, and mathematical statistics is presented, see also [51]. In particular, a complete arc in a plane  $PG(2, q)$ , the points of which are treated as 3-dimensional  $q$ -ary columns, defines a parity check matrix of a  $q$ -ary linear code with codimension 3, Hamming distance 4, and covering radius 2. Arcs can be interpreted as linear maximum distance separable (MDS) codes [67, Sec. 7], [69] and they are related to optimal coverings arrays [42], to superregular matrices [47], and to quantum codes [17].

A point set  $S \subset PG(2, q)$  is 1-saturating if any point of  $PG(2, q) \setminus S$  is collinear with two points in  $S$  [15, 26, 27, 37]. Points of a 1-saturating set in  $PG(2, q)$  form a parity check matrix of a *linear covering code* with codimension 3 and covering radius 2. An open problem is to find small 1-saturating sets (resp. short covering codes). A complete arc in  $PG(2, q)$  is, in particular, a 1-saturating set; often the smallest known arc is the smallest known 1-saturating set [15, 26, 27, 57]. Let  $\ell_1(2, q)$  be the smallest size of a 1-saturating set in  $PG(2, q)$ . In [19, 50], for  $q$  sufficiently large, by probabilistic methods it is proven the following (for  $3\sqrt{2}$  see [19, p. 24 ]):

$$\ell_1(2, q) < 3\sqrt{2}\sqrt{q \ln q} < 5\sqrt{q \ln q}. \quad (1.1)$$

Let  $t_2(2, q)$  be the smallest size of a complete arc in  $PG(2, q)$ .

One of the main problems in the study of projective planes, which is also of interest in coding theory, is to determine the spectrum of possible sizes of complete arcs. In particular, the value of  $t_2(2, q)$  is interesting. Finding estimations of  $t_2(2, q)$  is a hard open problem.

This work is devoted to *upper bounds* on  $t_2(2, q)$ .

Surveys of results on the sizes of plane complete arcs and on the methods of their construction can be found in [9, 10, 22, 23, 31, 37, 43, 45, 46, 48, 58, 59, 61–64, 66–68].

Problems connected with small complete plane arcs are considered in [1–16, 20–25, 29–41, 43–46, 48, 49, 51–68, 70–73]; see also the references therein.

The exact values of  $t_2(2, q)$  are known only for  $q \leq 32$ , see [2, 20, 21, 30, 40, 43, 44, 52, 54, 55] and the work [15] where the equalities  $t_2(2, 31) = t_2(2, 32) = 14$  are established.

The following lower bounds hold, see [3, 60, 61] and the references therein:

$$t_2(2, q) > \begin{cases} \sqrt{2q} + 1 & \text{for any } q \\ \sqrt{3q} + \frac{1}{2} & \text{for } q = p^h, p \text{ prime, } h = 1, 2, 3 \end{cases} \quad (1.2)$$

Let  $t(\mathcal{P}_q)$  be the size of the smallest complete arc in any (not necessarily Galois) projective plane  $\mathcal{P}_q$  of order  $q$ . In [48], for *sufficiently large*  $q$ , the following result is proved by *probabilistic methods* (we give it in the form of [45, Table 2.6]) taking into account that all logarithms in [48] have natural base, see [48, p. 10]):

$$t(\mathcal{P}_q) \leq D\sqrt{q} \ln^C q, \quad C \leq 300, \quad (1.3)$$

where  $C$  and  $D$  are constants independent of  $q$  (i.e. so-called universal or absolute constants). The authors of [48] conjecture that the constant can be reduced to  $C = 10$ . A survey and analysis of random constructions for geometrical objects can be found in [19, 33, 50].

In [18, 48], it is noted that, in a preliminary report of 1989, J. C. Fisher obtained by computer search complete arcs in many planes of small orders and conjectured that average size of a complete arc is about  $\sqrt{3q \log q}$ .

Complete arcs in  $PG(2, q)$  have been obtained by *algebraic constructions* (see [46, p. 209]) with sizes approximately  $\frac{1}{3}q$  [1, 9, 49, 63–65, 73],  $\frac{1}{4}q$  [9, 49, 66],  $2q^{0.9}$  with  $q > 7^{10}$  [63],  $2.46p^{0.75} \ln p$  with big prime  $p$  [41]. The smallest size of a complete arc in  $PG(2, q)$  obtained via algebraic constructions is  $cq^{3/4}$ , where  $c$  is an universal constant, see [33, Sec. 8], [66, Sec. 3], [67, Th. 6.8].

Let  $\bar{t}_2(2, q)$  be the smallest *known* size of a complete arc in  $PG(2, q)$ . Clearly,

$$t_2(2, q) \leq \bar{t}_2(2, q).$$

By [9, 10], see also the references therein,  $\bar{t}_2(2, q) < 4\sqrt{q}$  for  $q \leq 841$ ,  $q = 857$ . Complete  $(4\sqrt{q} - 4)$ -arcs are obtained for  $q = p^2$  odd,  $p \leq 41$ ,  $p = 7^2$  [34, 39], and

$q = 2^6, 2^8, 2^{10}$  [25, 29]. So,

$$t_2(2, q) < 4\sqrt{q} \quad \text{for } q \leq 841, \quad q = 857, 31^2, 2^{10}, 37^2, 41^2, 7^4. \quad (1.4)$$

For  $q \leq 151$ , a number of improvements of  $\bar{t}_2(2, q)$  are given in the recent paper [57].

In [24],  $(6\sqrt{q} - 6)$ -arcs in  $PG(2, q)$ ,  $q = 4^{2h+1}$ , are constructed; for  $h \leq 4$  it is proven that they are complete. In particular, it gives a complete 3066-arc in  $PG(2, 2^{18})$ .

For  $q \leq 13627$  and sporadic greater  $q$ , the values of  $\bar{t}_2(2, q)$  (up to January 2013) are collected in the papers [9, 10] where the following results are obtained.

$$t_2(2, q) < 4.5\sqrt{q} \quad \text{for } q \leq 2647, \quad q = 2659, 2663, 2683, 2693, 2753, 2801; \quad (1.5)$$

$$t_2(2, q) < 5\sqrt{q} \quad \text{for } q \leq 9497, \quad q = 9539, 9587, 9613, 9623, 9649, 9689, 9923, 9973; \quad (1.6)$$

$$t_2(2, q) < \sqrt{q} \ln^{0.72983} q \quad \text{for } 109 \leq q \leq 13627. \quad (1.7)$$

The following set  $T_1$  of values of  $q$  is considered in [5].

$$T_1 = \{173 \leq q \leq 49727, \quad q \text{ power prime}\} \cup \{173 \leq q \leq 125003, \quad q \text{ prime}\} \cup \\ \{59 \text{ sporadic prime } q\text{'s in the interval } [125101 \dots 360007], \text{ see [5, Table 7]}\}. \quad (1.8)$$

For  $q \in T_1$ , the smallest known values of  $\bar{t}_2(2, q)$  (up to November 2013) are collected in [5] where the following result is obtained.

$$t_2(2, q) < \sqrt{q} \ln^{0.7295} q \quad \text{for } 109 \leq q \leq 169 \text{ and } q \in T_1. \quad (1.9)$$

In [5, 9, 10], most of the values  $\bar{t}_2(2, q)$  have been obtained by computer search using the randomized greedy algorithms described in [9, 10, 13, 22, 23, 28].

We define the following sets of values of  $q$ .

$$L = \{q \leq 67993, \quad q \text{ prime}\} \cup \{43 \text{ sporadic prime } q\text{'s in } [69997 \dots 190027], \text{ see [11]}\};$$

$$L^\# = \{152501, 157513, 162517, 167521, 172507, 195023, 200003, 205019, 210011, \\ 215051, 220009, 225023, 230003, 235003, 240007\};$$

$$S = \{q \leq 40009, \quad q \text{ prime}\};$$

$$R = \{q \leq 46337, \quad q \text{ prime}\}.$$

In [11, 13, 16] the algorithm FOP (Fixed Order of Points) used to construct small complete arcs in  $PG(2, q)$  is described. Let  $t_2^L(2, q)$  be the size of a complete arc in  $PG(2, q)$  obtained by Algorithm FOP with Lexicographical order of points. Denote by  $t_2^S(2, q)$  be the size of a complete arc in  $PG(2, q)$  obtained by Algorithm FOP with Singer order of points. The sizes  $t_2^L(2, q)$  with  $q \in L$  and sizes  $t_2^S(2, q)$  with  $q \in S$  are collected

in [11]. The sizes  $t_2^L(2, q)$  with  $q \in L^\#$  are obtained in [7]. By the results of [7, 11] it holds that

$$t_2(2, q) \leq t_2^L(2, q) < 1.83\sqrt{q \ln q} \text{ for } q \in L \cup L^\#; \quad (1.10)$$

$$t_2(2, q) \leq t_2^S(2, q) < 1.83\sqrt{q \ln q} \text{ for } q \in S. \quad (1.11)$$

Let  $t_2^R(2, q)$  be the size of a *random* complete arc in  $PG(2, q)$ .

For  $q \in R$ , the sizes  $t_2^R(2, q)$  are collected in [12] where the following result is obtained.

$$t_2(2, q) \leq t_2^R(2, q) < 1.83\sqrt{q \ln q} \text{ for } q \in R. \quad (1.12)$$

## 2 The main results

We denote

$$\begin{aligned} T_0 &= \{2 \leq q \leq 169\}; \\ T_2 &= \{125017 \leq q \leq 150001, q \text{ prime}\} \cup \\ &\quad \{290011, 370003, 380041, 390001, 400009, 410009\}. \end{aligned}$$

*In this work*, by computer search\* using randomized greedy algorithms similar to ones in [5, 9, 10, 13, 22, 23, 28], the values of  $\bar{t}_2(2, q)$  are obtained for  $q \in T_2$ .

Also, we improved many results of [5].

We denote

$$\begin{aligned} T &= T_0 \cup T_1 \cup T_2 = \quad (2.1) \\ &\quad \{2 \leq q \leq 49727, q \text{ power prime}\} \cup \{2 \leq q \leq 150001, q \text{ prime}\} \cup \\ &\quad \{40 \text{ sporadic prime } q\text{'s in the interval } [150503 \dots 410009], \text{ see Table 6}\}. \end{aligned}$$

***In this work we collected values of  $\bar{t}_2(2, q)$  (up to August 2014) for  $q \in T$ .***

The values of  $\bar{t}_2(2, q)$  are written in Tables 1–6, see Appendix. We take into account the results from [1–5, 7, 9, 10, 13–16, 22–25, 29–41, 43–46, 48, 49, 51–68, 70–73].

For  $2 \leq q \leq 13627$  we use arc's sizes collected in the paper [10], see Table 2. Some sizes of [10] are improved; they are collected in Table 1, also they are written in Table 2 in **bold font**. For  $q \leq 151$ , the improvements are taken from [57]; for  $q \geq 2383$ , the improved sizes are obtained in [5].

In Tables 3–6, arc sizes smaller than in [5] are written in **bold font**; the improved sizes are obtained in this work. For  $q \geq 125017$ , all sizes of complete arcs in Table 5 are new; they are obtained in this work.

We use the following two forms of upper bounds on  $t_2(2, q)$ .

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\*The calculations are done using computational resources of Multipurpose Computing Complex of National Research Centre “Kurchatov Institute” (<http://computing.kiae.ru/>).

- The standard form similar to [45, 48]:

$$t_2(2, q) \leq D\sqrt{q} \ln^C q \quad (2.2)$$

where  $C$  and  $D$  are constants independent of  $q$ .

We call an upper bound of the form (2.2) a *bound with fixed degree of logarithm* (**FDL-bound** for short).

- Non-standard form similar to [4, 7, 10, 16]:

$$t_2(2, q) \leq D\sqrt{q} \ln^{\psi(q; D)} q, \quad D < 1, \quad (2.3)$$

where  $D$  is a constant independent of  $q$ , whereas  $\psi(q; D)$  is a *decreasing function of  $q$* .

We call an upper bound of the form (2.3) a *bound with decreasing degree of logarithm* (**DDL-bound** for short).

We denote

$$\begin{aligned} \psi(q; 0.6) &= \varphi(q); \\ \psi(q; 1) &= f(q). \end{aligned}$$

From the results of this work (see Tables 1 – 6, see also [4]), we have the following theorem.

**Theorem 2.1.** *Let the set  $T$  be as in (2.1).*

- (i) *In the projective plane  $PG(2, q)$  the following FDL-bounds hold:*

$$t_2(2, q) \leq 1.745\sqrt{q \ln q}, \quad q \in T; \quad (2.4)$$

$$t_2(2, q) \leq \sqrt{q} \ln^{0.7295} q, \quad q \geq 109, \quad q \in T. \quad (2.5)$$

- (ii) *In the projective plane  $PG(2, q)$  the following DDL-bounds hold:*

$$t_2(2, q) \leq \sqrt{q} \ln^{f(q)} q, \quad f(q) = \frac{0.27}{\ln q} + 0.7, \quad q \in T; \quad (2.6)$$

$$t_2(2, q) \leq 0.6\sqrt{q} \ln^{\varphi(q)} q, \quad \varphi(q) = \frac{1.5}{\ln q} + 0.802, \quad q \in T. \quad (2.7)$$

- (iii) *Arcs with sizes satisfying to bounds (2.4) – (2.7) can be obtained with the help of the randomised greedy algorithms described in [9, 10, 13, 22, 23, 28].*

**Corollary 2.2.** *Let the set  $T$  be as in (2.1). Let  $f(q)$  and  $\varphi(q)$  be as in (2.6) and (2.7), respectively. In  $PG(2, q)$ , for the smallest size  $t_2(2, q)$  of a complete arc, the following upper bounds hold:*

$$t_2(2, q) < \min\{1.745\sqrt{q \ln q}, \sqrt{q} \ln^{0.7295} q, \sqrt{q} \ln^{f(q)} q, 0.6\sqrt{q} \ln^{\varphi(q)} q\}, \quad q \geq 109, \quad q \in T, \quad (2.8)$$

where for  $q \in T$  we have

$$\min\{1.745\sqrt{q \ln q}, \sqrt{q} \ln^{0.7295} q, \sqrt{q} \ln^{f(q)} q, 0.6\sqrt{q} \ln^{\varphi(q)} q\} = \begin{cases} \sqrt{q} \ln^{0.7295} q & \text{if } 109 \leq q \leq 9437, \quad q \in T \\ \sqrt{q} \ln^{f(q)} q & \text{if } 9439 \leq q \leq 88873, \quad q \in T \\ 0.6\sqrt{q} \ln^{\varphi(q)} q & \text{if } 88883 \leq q \leq 300007, \quad q \in T \\ 1.745\sqrt{q \ln q} & \text{if } 330017 \leq q \leq 410009, \quad q \in T \end{cases} \quad (2.9)$$

Theorem 2.1 and Corollary 2.2 are based on Tables 1–6 and are illustrated by Figures 1–6.

On Figure 1, the following is shown: FDL-bound  $1.83\sqrt{q} \ln^{0.5} q$  (the top dashed-dotted blue curve), see (1.10) – (1.12); FDL-bound  $\sqrt{q} \ln^{0.7295} q$  (the 2-nd dashed blue curve), see (2.5); DDL-bound  $\sqrt{q} \ln^{f(q)} q$  (the 3-rd dashed-dotted blue curve), see (2.6); DDL-bound  $0.6\sqrt{q} \ln^{\varphi(q)} q$  (the 4-th dashed-dotted red curve), see (2.7); sizes  $\bar{t}_2(2, q)$  of complete arcs obtained by the randomized greedy algorithms (the bottom solid black curve), see Tables 1–6,  $109 \leq q \leq 410009$ . Note that curves of DDL-bounds and sizes  $\bar{t}_2(2, q)$  almost coalesce with each other but always  $0.6\sqrt{q} \ln^{\varphi(q)} q > \bar{t}_2(2, q)$  and  $\sqrt{q} \ln^{f(q)} q > \bar{t}_2(2, q)$ .

On Figure 2, FDL-bound  $1.745\sqrt{q \ln q}$  (“bound 1.745” for short; the top dashed-dotted magenta curve), see (2.4), and sizes  $\bar{t}_2(2, q)$  of complete arcs obtained by the randomized greedy algorithms (the bottom solid black curve), see Tables 1–6, are shown. Again, the curve  $1.745\sqrt{q \ln q}$  and sizes  $\bar{t}_2(2, q)$  almost coalesce with each other but always  $1.745\sqrt{q \ln q} > \bar{t}_2(2, q)$ .

On Figure 3, DDL-bound  $0.6\sqrt{q} \ln^{\varphi(q)} q$  (“bound 0.6” for short; the top dashed-dotted red curve), see (2.7), and sizes  $\bar{t}_2(2, q)$  of complete arcs obtained by the randomized greedy algorithms (the bottom solid black curve), see Tables 1–6, are shown.

On Figure 4, the upper bounds and greedy algorithms’ results are represented in more convenient form: all values are divided by  $\sqrt{q \ln q}$ . The following is shown on Figure 4:  $\ln^{0.2295} q$  (the top dashed blue curve);  $\ln^{f^*(q)} q$  (the 2-nd dashed-dotted blue curve);  $0.6 \ln^{\varphi^*(q)} q$  (the 3-rd dashed-dotted red curve); values  $\frac{\bar{t}_2(2, q)}{\sqrt{q \ln q}}$  from complete arcs obtained by the greedy algorithms,  $q \in T$  (the bottom solid black curve); the line  $y = 1.745$  (magenta line). Here

$$f^*(q) = f(q) - 0.5 = \frac{0.27}{\ln q} + 0.2,$$

$$\varphi^*(q) = \varphi(q) - 0.5 = \frac{1.5}{\ln q} + 0.302.$$

On Figure 5 we show  $\varphi(q)$  (the top dashed-dotted red curve) and values  $\bar{\varphi}(q)$  from complete arcs obtained by the greedy algorithms,  $q \in T$  (the bottom solid black curve). Here function  $\bar{\varphi}(q)$  is defined by the equality

$$\bar{t}_2(2, q) = 0.6\sqrt{q} \ln^{\bar{\varphi}(q)} q.$$

On Figure 6 we show  $y = 0.7295$  (the top dashed blue line),  $f(q)$  (the 2-nd dashed-dotted blue curve), values  $\bar{f}(q)$  from complete arcs obtained by the greedy algorithms (the bottom solid black curve). Here function  $\bar{f}(q)$  is defined by the equality

$$\bar{t}_2(2, q) = \sqrt{q} \ln^{\bar{f}(q)} q.$$

The illustrations on Figures 1 – 6 allow us to conjecture the following.

**Conjecture 2.3.** *The bounds of (2.4) – (2.7) hold for **all**  $q \geq 109$ .*

### 3 List of tables

**Table 1.** New sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in  $PG(2, q)$  smaller than in [10].  
p. 14

**Table 2.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in  $PG(2, q)$ ,  
 $2 \leq q \leq 13627$ ,  $q$  power prime. pp. 21–28

**Table 3.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $PG(2, q)$ ,  
 $13628 \leq q \leq 50000$ ,  $q$  power prime,  $q \neq 49729$ . pp. 29–45

**Table 4.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $PG(2, q)$ ,  
 $50001 \leq q \leq 100000$ ,  $q$  prime. pp. 46–67

**Table 5.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $PG(2, q)$ ,  
 $100001 \leq q \leq 150000$ ,  $q$  prime. pp. 68–88

**Table 6.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $PG(2, q)$ ,  
 $q = 150001$  and 40 sporadic prime  $q$ 's in the interval [150503...410009]. p. 89

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## Appendix. Tables of values of $\bar{t}_2(2, q)$

**Table 1.** Sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in  $PG(2, q)$  smaller than in [10]<sup>†</sup>

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
67	22 [57]	97	28 [57]	109	30 [57]	121	30 [57]	125	30 [57]	137	36 [57]
139	36 [57]	151	36 [57]								
2383	217	2551	226	2803	239	2843	241	2861	241	2963	247
3125	255	3167	257	3209	259	3251	261	3313	263	3463	271
3529	274	3571	274	3593	277	3637	279	3659	280	3727	283
3769	285	3793	286	3863	289	3907	291	3929	292	3931	292
4091	299	4139	301	4231	305	4327	309	4349	310	4373	311
4397	312	4421	313	4493	315	4519	317	4567	319	4591	320
4639	322	4787	328	4789	327	4813	329	4889	331	4913	333
4937	333	5167	343	5297	347	5503	356	5531	356	5639	361
5827	368	5881	370	6211	382	6491	391				

<sup>†</sup>for  $q \geq 2383$  the sizes are obtained in [5]

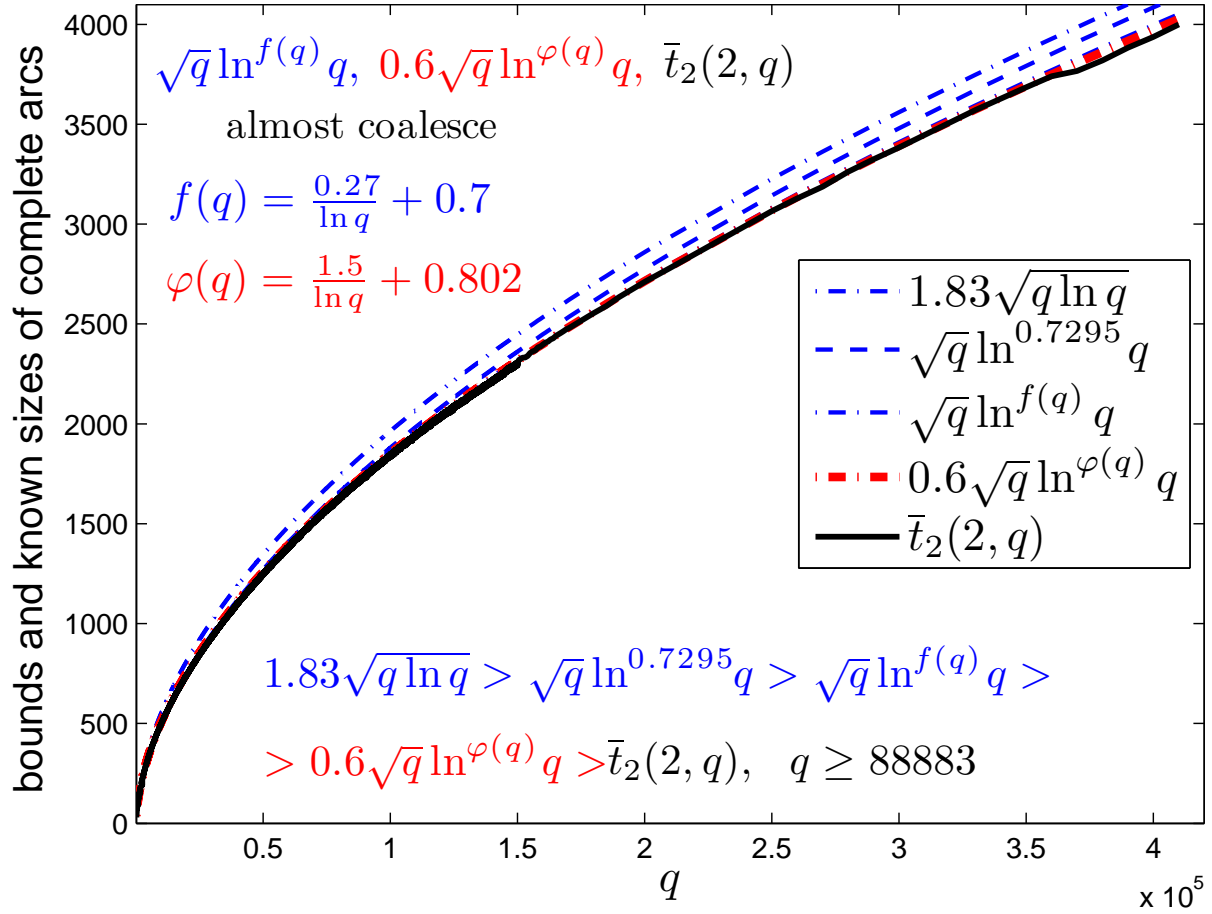


Figure 1: **Upper bounds on  $t_2(2, q)$  vs greedy algorithms' results (I).**  $1.83\sqrt{q \ln q}$  (the top dashed-dotted blue curve);  $\sqrt{q} \ln^{0.7295} q$  (the 2-nd dashed blue curve);  $\sqrt{q} \ln^{f(q)} q$  (the 3-rd dashed-dotted blue curve);  $0.6\sqrt{q} \ln^{\varphi(q)} q$  (the 4-th dashed-dotted red curve); sizes  $\bar{t}_2(2, q)$  of complete arcs obtained by the greedy algorithms,  $q \in T$  (the bottom solid black curve).

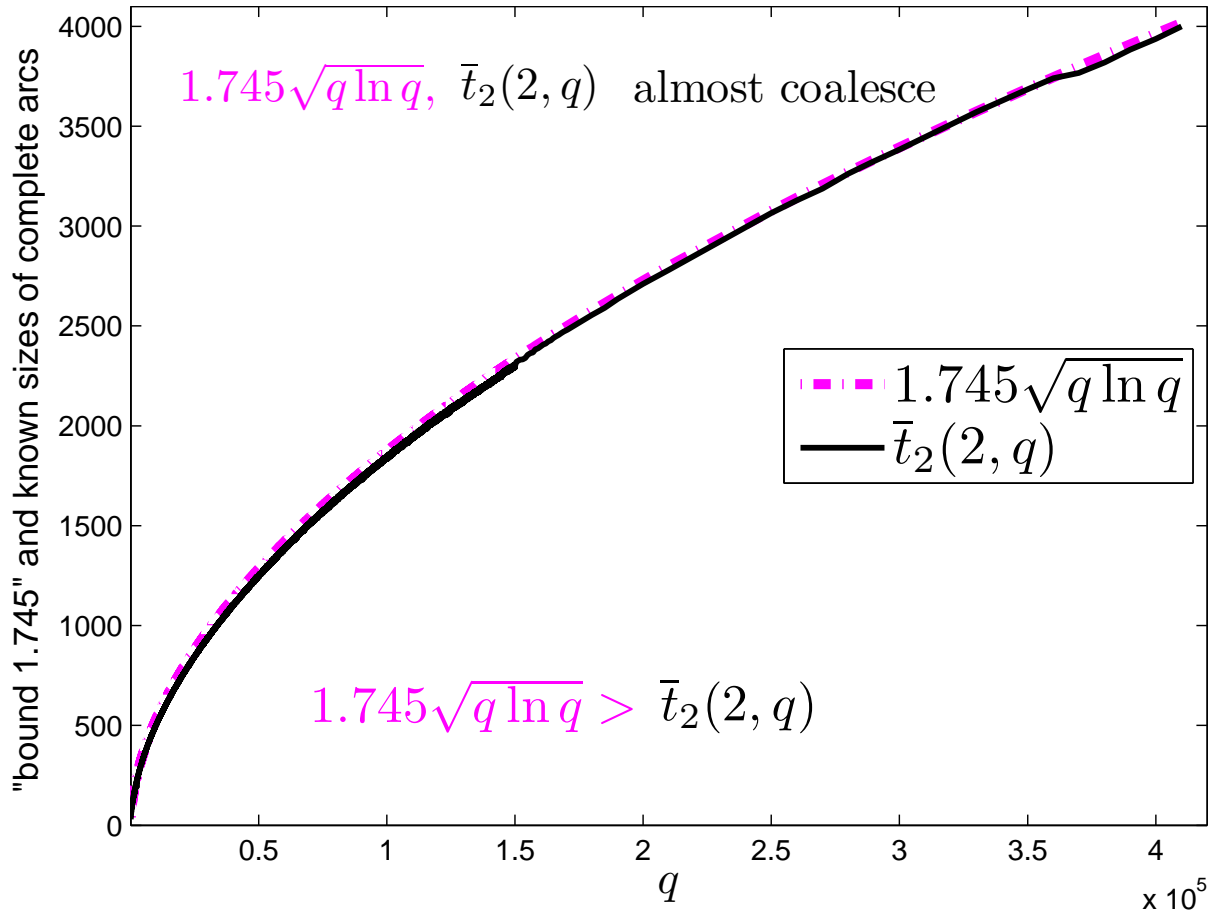


Figure 2: **Upper bound  $1.745\sqrt{q \ln q}$  vs greedy algorithms' results.**  $1.745\sqrt{q \ln q}$  (the top dashed-dotted magenta curve); sizes  $\bar{t}_2(2, q)$  of complete arcs obtained by the greedy algorithms,  $q \in T$  (the bottom solid black curve).



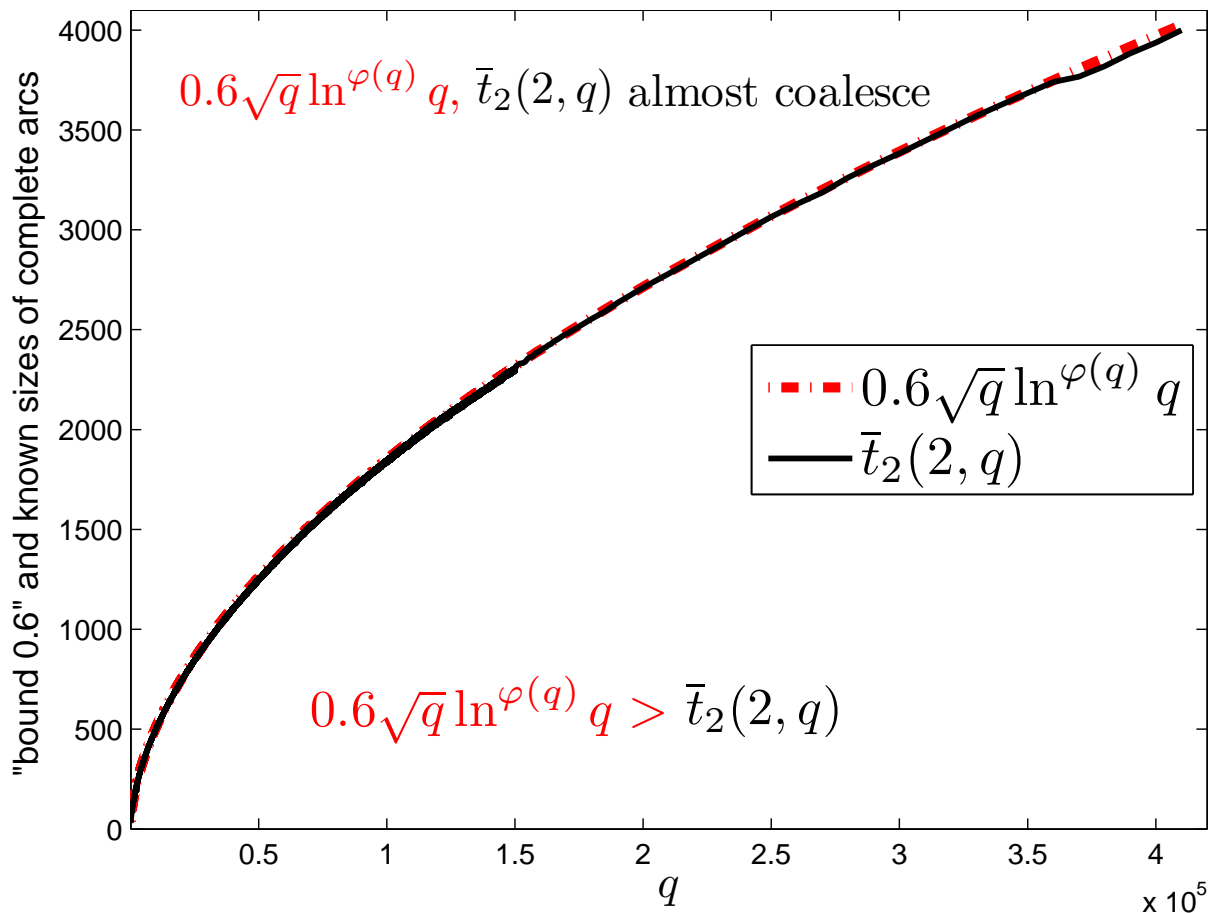


Figure 3: **Upper bound  $0.6\sqrt{q} \ln^{\varphi(q)} q$  vs greedy algorithms' results.**  $0.6\sqrt{q} \ln^{\varphi(q)} q$  (the top dashed-dotted red curve); sizes  $\bar{t}_2(2, q)$  of complete arcs obtained by the greedy algorithms,  $q \in T$  (the bottom solid black curve).

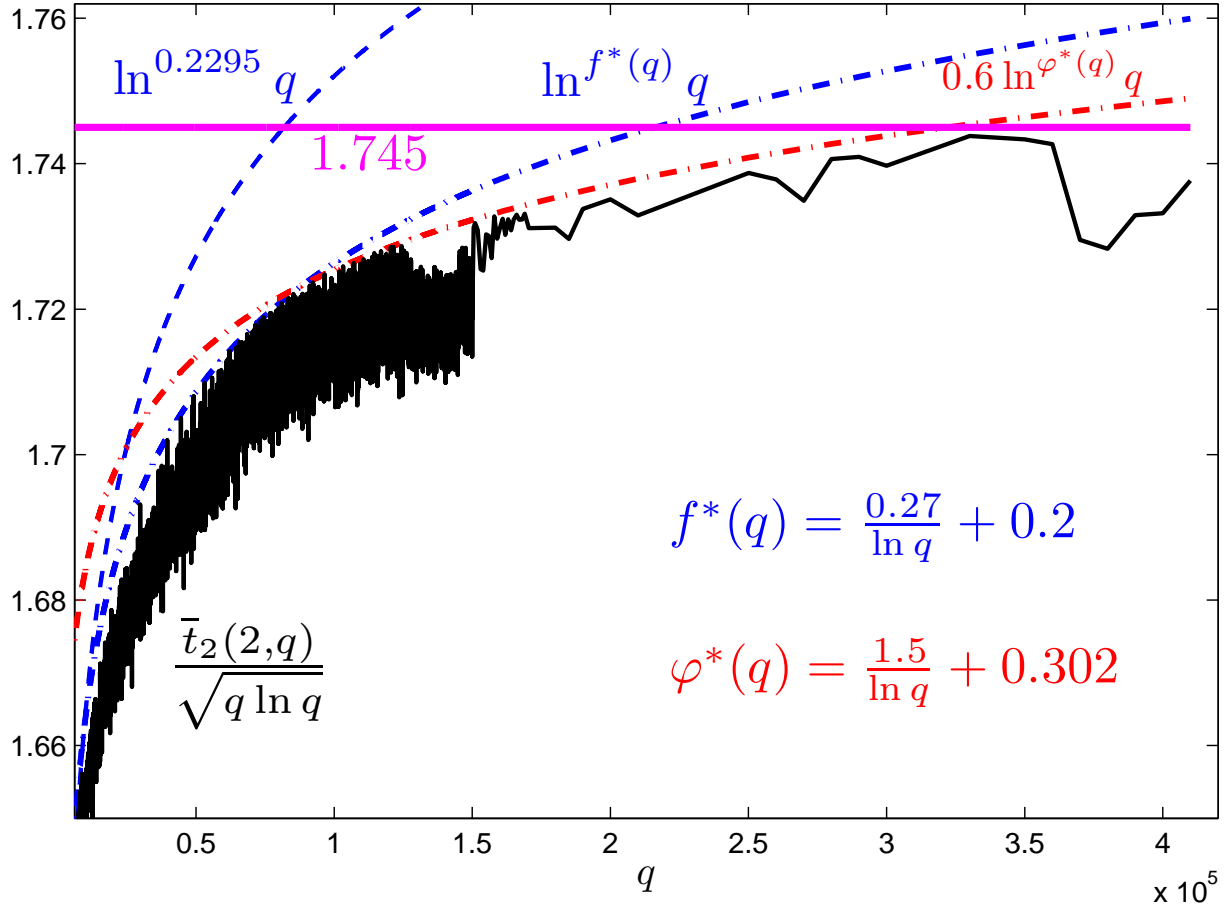


Figure 4: **Upper bounds on  $t_2(2, q)$  vs greedy algorithms' results (II).**  
 $\ln^{0.2295} q$  (the top dashed blue curve);  $\ln^{f^*(q)} q$  (the 2-nd dashed-dotted blue curve);  
 $0.6 \ln^{\varphi^*(q)} q$  (the 3-rd dashed-dotted red curve); values  $\frac{\bar{t}_2(2, q)}{\sqrt{q \ln q}}$  from complete arcs obtained  
by the greedy algorithms,  $q \in T$  (the bottom solid black curve);  $y = 1.745$  (magenta line).

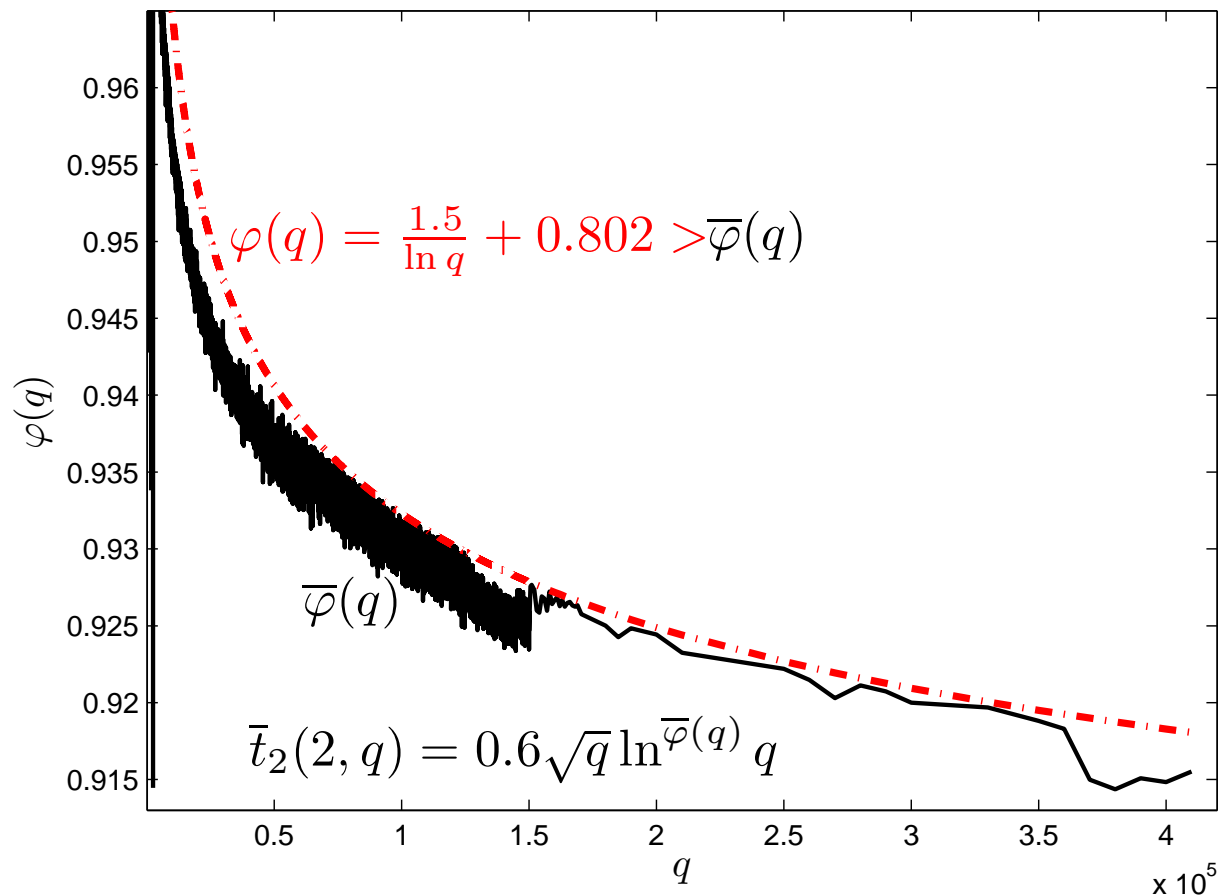


Figure 5: **The function  $\varphi(q)$  vs  $\bar{\varphi}(q)$  obtained by greedy algorithms.**  $\varphi(q)$  (the top dashed-dotted red curve); values  $\bar{\varphi}(q)$  from complete arcs obtained by the greedy algorithms,  $q \in T$  (the bottom solid black curve).

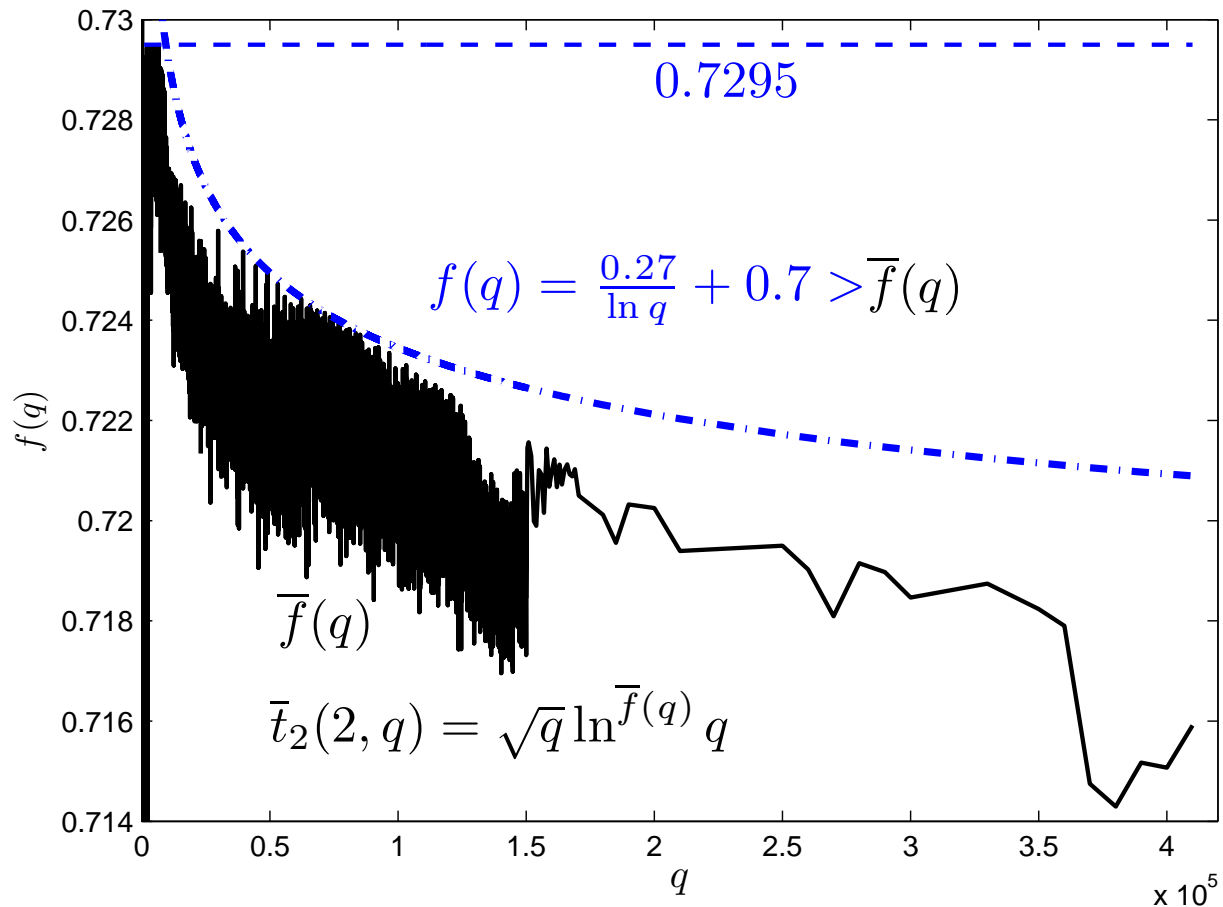


Figure 6: **The function  $f(q)$  vs  $\bar{f}(q)$  obtained by greedy algorithms.**  
 $y = 0.7295$  (the top dashed blue line);  $f(q)$  (the 2-nd dashed-dotted blue curve); values  $\bar{f}(q)$  from complete arcs obtained by the greedy algorithms (the bottom solid black curve).

**Table 2.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $\text{PG}(2, q)$ ,  $2 \leq q \leq 13627$ ,  $q$  power prime<sup>‡</sup>

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
2	4	3	4	4	6	5	6	7	6	8	6
9	6	11	7	13	8	16	9	17	10	19	10
23	10	25	12	27	12	29	13	31	14	32	14
37	15	41	16	43	16	47	18	49	18	53	18
59	20	61	20	64	22	<b>67 22</b> [57]	71	22	73	24	
79	26	81	26	83	27	89	28	<b>97 28</b> [57]	101	30	
103	31	107	32	<b>109 30</b> [57]	113	33	<b>121 30</b> [57]	<b>125 30</b> [57]			
127	35	128	34	131	36	<b>137 36</b> [57]	<b>139 36</b> [57]				
<b>151 36</b> [57]	157	40	163	41	167	42	169	42	173	43	
179	44	181	44	191	46	193	46	197	47	199	47
211	49	223	51	227	51	229	51	233	52	239	53
241	53	243	53	251	55	256	55	257	55	263	56
269	57	271	57	277	58	281	59	283	59	289	60
293	60	307	62	311	63	313	63	317	63	331	65
337	66	343	66	347	67	349	67	353	68	359	68
361	69	367	69	373	70	379	71	383	71	389	72
397	73	401	73	409	74	419	75	421	76	431	77
433	77	439	78	443	78	449	79	457	80	461	80
463	80	467	81	479	82	487	83	491	83	499	84
503	85	509	85	512	85	521	86	523	86	529	87
541	88	547	89	557	90	563	91	569	91	571	91
577	92	587	93	593	94	599	94	601	90	607	95
613	96	617	96	619	96	625	96	631	97	641	98
643	98	647	99	653	99	659	100	661	90	673	101
677	102	683	102	691	103	701	104	709	104	719	105
727	106	729	104	733	107	739	107	743	108	751	108
757	109	761	109	769	110	773	110	787	111	797	112
809	113	811	113	821	114	823	114	827	115	829	115
839	115	841	112	853	117	857	117	859	118	863	118
877	119	881	119	883	120	887	120	907	122	911	122
919	122	929	123	937	124	941	124	947	125	953	125
961	120	967	126	971	127	977	127	983	128	991	127
997	129	1009	130	1013	130	1019	130	1021	131	1024	124
1031	131	1033	132	1039	132	1049	133	1051	133	1061	134
1063	134	1069	134	1087	136	1091	136	1093	136	1097	136

<sup>‡</sup>Sizes smaller than in [10] are written in **bold font**; for  $q \geq 2383$  the improvements are obtained in [5]

**Table 2.** Continue 1

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
1103	137	1109	137	1117	138	1123	138	1129	139	1151	140
1153	141	1163	141	1171	142	1181	143	1187	143	1193	144
1201	144	1213	145	1217	145	1223	146	1229	146	1231	146
1237	147	1249	148	1259	148	1277	150	1279	150	1283	150
1289	150	1291	151	1297	151	1301	151	1303	151	1307	152
1319	152	1321	153	1327	153	1331	153	1361	155	1367	156
1369	144	1373	156	1381	157	1399	158	1409	159	1423	160
1427	160	1429	160	1433	160	1439	161	1447	161	1451	162
1453	162	1459	162	1471	163	1481	164	1483	164	1487	164
1489	164	1493	164	1499	165	1511	165	1523	166	1531	167
1543	167	1549	168	1553	168	1559	169	1567	169	1571	169
1579	170	1583	170	1597	171	1601	171	1607	172	1609	172
1613	172	1619	173	1621	173	1627	173	1637	174	1657	175
1663	175	1667	176	1669	176	1681	160	1693	177	1697	177
1699	178	1709	178	1721	179	1723	179	1733	180	1741	180
1747	181	1753	181	1759	181	1777	182	1783	183	1787	183
1789	183	1801	184	1811	184	1823	185	1831	186	1847	187
1849	187	1861	188	1867	188	1871	188	1873	188	1877	189
1879	189	1889	189	1901	190	1907	190	1913	191	1931	192
1933	192	1949	193	1951	193	1973	194	1979	195	1987	195
1993	195	1997	196	1999	196	2003	196	2011	197	2017	197
2027	197	2029	198	2039	198	2048	199	2053	199	2063	199
2069	200	2081	201	2083	201	2087	201	2089	201	2099	202
2111	202	2113	202	2129	203	2131	203	2137	204	2141	204
2143	204	2153	205	2161	205	2179	206	2187	207	2197	207
2203	208	2207	208	2209	208	2213	208	2221	208	2237	209
2239	210	2243	210	2251	210	2267	211	2269	211	2273	211
2281	212	2287	212	2293	213	2297	213	2309	213	2311	214
2333	215	2339	215	2341	214	2347	215	2351	216	2357	216
2371	217	2377	216	2381	217	<b>2383</b>	<b>217</b>	2389	218	2393	218
2399	218	2401	192	2411	219	2417	219	2423	220	2437	220
2441	221	2447	221	2459	222	2467	222	2473	222	2477	223
2503	224	2521	225	2531	225	2539	226	2543	226	2549	226
<b>2551</b>	<b>226</b>	2557	227	2579	228	2591	229	2593	229	2609	229
2617	230	2621	230	2633	230	2647	231	2657	232	2659	232

**Table 2.** Continue 2

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
2663	232	2671	233	2677	233	2683	233	2687	234	2689	234
2693	233	2699	234	2707	235	2711	235	2713	235	2719	235
2729	236	2731	236	2741	236	2749	237	2753	236	2767	238
2777	238	2789	239	2791	239	2797	239	2801	238	<b>2803</b>	<b>239</b>
2809	240	2819	240	2833	240	2837	241	<b>2843</b>	<b>241</b>	2851	242
2857	242	<b>2861</b>	<b>241</b>	2879	243	2887	243	2897	244	2903	245
2909	245	2917	245	2927	245	2939	246	2953	246	2957	247
<b>2963</b>	<b>247</b>	2969	248	2971	247	2999	249	3001	249	3011	250
3019	250	3023	249	3037	251	3041	251	3049	252	3061	252
3067	253	3079	253	3083	253	3089	254	3109	255	3119	255
3121	255	<b>3125</b>	<b>255</b>	3137	256	3163	257	<b>3167</b>	<b>257</b>	3169	258
3181	258	3187	258	3191	259	3203	259	<b>3209</b>	<b>259</b>	3217	260
3221	260	3229	260	<b>3251</b>	<b>261</b>	3253	261	3257	262	3259	262
3271	262	3299	264	3301	264	3307	264	<b>3313</b>	<b>263</b>	3319	265
3323	265	3329	265	3331	265	3343	265	3347	266	3359	267
3361	267	3371	267	3373	267	3389	268	3391	267	3407	269
3413	269	3433	270	3449	271	3457	271	3461	271	<b>3463</b>	<b>271</b>
3467	272	3469	272	3481	272	3491	273	3499	273	3511	274
3517	274	3527	274	<b>3529</b>	<b>274</b>	3533	275	3539	275	3541	275
3547	275	3557	276	3559	276	<b>3571</b>	<b>274</b>	3581	277	3583	277
<b>3593</b>	<b>277</b>	3607	278	3613	278	3617	278	3623	279	3631	279
<b>3637</b>	<b>279</b>	3643	278	<b>3659</b>	<b>280</b>	3671	281	3673	280	3677	281
3691	282	3697	282	3701	282	3709	283	3719	283	3721	283
<b>3727</b>	<b>283</b>	3733	284	3739	283	3761	284	3767	285	<b>3769</b>	<b>285</b>
3779	286	<b>3793</b>	<b>286</b>	3797	287	3803	287	3821	288	3823	288
3833	288	3847	288	3851	288	3853	289	<b>3863</b>	<b>289</b>	3877	290
3881	290	3889	291	<b>3907</b>	<b>291</b>	3911	292	3917	291	3919	292
3923	292	<b>3929</b>	<b>292</b>	<b>3931</b>	<b>292</b>	3943	293	3947	293	3967	294
3989	295	4001	296	4003	296	4007	296	4013	296	4019	296
4021	296	4027	296	4049	298	4051	298	4057	298	4073	299
4079	299	<b>4091</b>	<b>299</b>	4093	300	4096	300	4099	300	4111	300
4127	301	4129	301	4133	301	<b>4139</b>	<b>301</b>	4153	301	4157	302
4159	302	4177	303	4201	304	4211	305	4217	305	4219	305
4229	305	<b>4231</b>	<b>305</b>	4241	306	4243	306	4253	306	4259	307
4261	307	4271	307	4273	306	4283	308	4289	308	4297	308

Table 2. Continue 3

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
<b>4327</b>	<b>309</b>	4337	310	4339	310	<b>4349</b>	<b>310</b>	4357	311	4363	310
<b>4373</b>	<b>311</b>	4391	312	<b>4397</b>	<b>312</b>	4409	313	<b>4421</b>	<b>313</b>	4423	312
4441	314	4447	314	4451	315	4457	315	4463	315	4481	315
4483	316	4489	316	<b>4493</b>	<b>315</b>	4507	317	4513	317	4517	317
<b>4519</b>	<b>317</b>	4523	318	4547	319	4549	319	4561	319	<b>4567</b>	<b>319</b>
4583	320	<b>4591</b>	<b>320</b>	4597	321	4603	321	4621	321	4637	322
<b>4639</b>	<b>322</b>	4643	323	4649	323	4651	323	4657	323	4663	323
4673	323	4679	324	4691	324	4703	325	4721	326	4723	326
4729	325	4733	326	4751	327	4759	327	4783	328	<b>4787</b>	<b>328</b>
<b>4789</b>	<b>327</b>	4793	329	4799	329	4801	329	<b>4813</b>	<b>329</b>	4817	329
4831	329	4861	331	4871	332	4877	332	<b>4889</b>	<b>331</b>	4903	333
4909	332	<b>4913</b>	<b>333</b>	4919	334	4931	334	4933	334	<b>4937</b>	<b>333</b>
4943	334	4951	335	4957	335	4967	336	4969	336	4973	336
4987	336	4993	337	4999	337	5003	337	5009	337	5011	337
5021	338	5023	338	5039	338	5041	339	5051	339	5059	339
5077	340	5081	340	5087	340	5099	341	5101	341	5107	341
5113	341	5119	341	5147	343	5153	342	<b>5167</b>	<b>343</b>	5171	344
5179	344	5189	344	5197	345	5209	345	5227	346	5231	346
5233	346	5237	346	5261	347	5273	348	5279	348	5281	348
<b>5297</b>	<b>347</b>	5303	349	5309	349	5323	349	5329	350	5333	349
5347	350	5351	350	5381	352	5387	352	5393	352	5399	352
5407	352	5413	353	5417	353	5419	353	5431	354	5437	354
5441	354	5443	354	5449	354	5471	355	5477	355	5479	355
5483	355	5501	356	<b>5503</b>	<b>356</b>	5507	357	5519	357	5521	356
5527	357	<b>5531</b>	<b>356</b>	5557	358	5563	359	5569	359	5573	359
5581	359	5591	359	5623	361	<b>5639</b>	<b>361</b>	5641	362	5647	362
5651	362	5653	362	5657	362	5659	362	5669	363	5683	363
5689	363	5693	363	5701	364	5711	363	5717	364	5737	365
5741	365	5743	365	5749	365	5779	367	5783	366	5791	367
5801	367	5807	368	5813	366	5821	368	<b>5827</b>	<b>368</b>	5839	369
5843	368	5849	369	5851	369	5857	370	5861	370	5867	370
5869	370	5879	370	<b>5881</b>	<b>370</b>	5897	371	5903	371	5923	372
5927	372	5939	373	5953	372	5981	374	5987	374	6007	375
6011	373	6029	375	6037	376	6043	376	6047	377	6053	377
6067	376	6073	377	6079	378	6089	378	6091	378	6101	379



**Table 2.** Continue 4

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
6113	379	6121	379	6131	380	6133	380	6143	379	6151	380
6163	380	6173	381	6197	382	6199	381	6203	381	<b>6211</b>	<b>382</b>
6217	383	6221	383	6229	383	6241	384	6247	384	6257	384
6263	384	6269	384	6271	384	6277	385	6287	385	6299	385
6301	386	6311	386	6317	385	6323	387	6329	387	6337	386
6343	387	6353	388	6359	387	6361	388	6367	388	6373	388
6379	389	6389	388	6397	389	6421	390	6427	390	6449	391
6451	390	6469	391	6473	392	6481	392	<b>6491</b>	<b>391</b>	6521	392
6529	393	6547	394	6551	395	6553	395	6561	395	6563	395
6569	395	6571	394	6577	396	6581	396	6599	396	6607	397
6619	396	6637	398	6653	398	6659	398	6661	398	6673	399
6679	399	6689	399	6691	399	6701	400	6703	400	6709	400
6719	400	6733	401	6737	401	6761	402	6763	402	6779	402
6781	402	6791	403	6793	403	6803	402	6823	404	6827	404
6829	404	6833	404	6841	404	6857	405	6859	405	6863	405
6869	405	6871	405	6883	406	6889	406	6899	406	6907	407
6911	407	6917	406	6947	408	6949	408	6959	408	6961	408
6967	409	6971	409	6977	409	6983	408	6991	409	6997	409
7001	409	7013	410	7019	410	7027	410	7039	410	7043	411
7057	410	7069	412	7079	412	7103	412	7109	413	7121	414
7127	414	7129	414	7151	415	7159	415	7177	416	7187	415
7193	415	7207	417	7211	417	7213	417	7219	417	7229	418
7237	418	7243	418	7247	416	7253	418	7283	418	7297	420
7307	418	7309	420	7321	421	7331	421	7333	421	7349	422
7351	422	7369	422	7393	423	7411	423	7417	423	7433	424
7451	422	7457	424	7459	425	7477	426	7481	426	7487	426
7489	426	7499	426	7507	427	7517	427	7523	426	7529	426
7537	428	7541	428	7547	428	7549	428	7559	428	7561	429
7573	429	7577	428	7583	429	7589	428	7591	430	7603	430
7607	430	7621	431	7639	431	7643	431	7649	431	7669	431
7673	432	7681	432	7687	433	7691	433	7699	433	7703	433
7717	434	7723	433	7727	434	7741	434	7753	435	7757	433
7759	435	7789	435	7793	436	7817	437	7823	436	7829	437
7841	438	7853	438	7867	438	7873	437	7877	438	7879	438
7883	438	7901	440	7907	440	7919	439	7921	440	7927	440

**Table 2.** Continue 5

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
7933	440	7937	440	7949	441	7951	441	7963	441	7993	441
8009	443	8011	443	8017	443	8039	444	8053	444	8059	445
8069	445	8081	445	8087	444	8089	445	8093	446	8101	446
8111	446	8117	447	8123	446	8147	447	8161	448	8167	448
8171	448	8179	448	8191	446	8192	449	8209	448	8219	450
8221	449	8231	450	8233	449	8237	450	8243	449	8263	451
8269	449	8273	451	8287	450	8291	452	8293	452	8297	452
8311	452	8317	453	8329	453	8353	454	8363	454	8369	454
8377	454	8387	455	8389	454	8419	456	8423	456	8429	455
8431	456	8443	457	8447	456	8461	456	8467	457	8501	457
8513	457	8521	459	8527	458	8537	460	8539	458	8543	460
8563	460	8573	460	8581	460	8597	461	8599	461	8609	461
8623	462	8627	462	8629	462	8641	462	8647	462	8663	463
8669	463	8677	463	8681	464	8689	464	8693	464	8699	464
8707	464	8713	464	8719	464	8731	464	8737	466	8741	466
8747	466	8753	466	8761	465	8779	467	8783	466	8803	467
8807	466	8819	468	8821	468	8831	469	8837	468	8839	468
8849	468	8861	470	8863	468	8867	470	8887	469	8893	470
8923	471	8929	471	8933	471	8941	471	8951	471	8963	472
8969	472	8971	471	8999	471	9001	472	9007	473	9011	472
9013	473	9029	473	9041	474	9043	474	9049	474	9059	475
9067	475	9091	475	9103	475	9109	476	9127	477	9133	477
9137	477	9151	476	9157	477	9161	478	9173	478	9181	477
9187	478	9199	477	9203	479	9209	479	9221	480	9227	480
9239	480	9241	480	9257	481	9277	481	9281	480	9283	481
9293	482	9311	481	9319	482	9323	482	9337	483	9341	483
9343	483	9349	483	9371	483	9377	484	9391	484	9397	484
9403	484	9409	484	9413	485	9419	484	9421	485	9431	485
9433	484	9437	484	9439	484	9461	486	9463	486	9467	486
9473	486	9479	486	9491	487	9497	486	9511	488	9521	489
9533	489	9539	487	9547	489	9551	489	9587	489	9601	490
9613	489	9619	491	9623	490	9629	492	9631	492	9643	491
9649	490	9661	492	9677	492	9679	493	9689	492	9697	493
9719	494	9721	494	9733	494	9739	494	9743	495	9749	495
9767	496	9769	496	9781	495	9787	495	9791	495	9803	496

**Table 2.** Continue 6

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
9811	497	9817	497	9829	497	9833	497	9839	497	9851	498
9857	498	9859	498	9871	498	9883	498	9887	499	9901	498
9907	499	9923	498	9929	499	9931	499	9941	500	9949	500
9967	501	9973	499	10007	502	10009	502	10037	503	10039	503
10061	504	10067	504	10069	504	10079	504	10091	505	10093	504
10099	505	10103	504	10111	505	10133	506	10139	506	10141	506
10151	504	10159	505	10163	506	10169	507	10177	507	10181	507
10193	507	10201	508	10211	507	10223	508	10243	508	10247	509
10253	509	10259	509	10267	510	10271	510	10273	510	10289	509
10301	510	10303	510	10313	511	10321	511	10331	511	10333	511
10337	512	10343	511	10357	512	10369	513	10391	512	10399	512
10427	514	10429	513	10433	514	10453	515	10457	514	10459	515
10463	515	10477	515	10487	514	10499	516	10501	516	10513	517
10529	516	10531	516	10559	518	10567	518	10589	518	10597	519
10601	519	10607	519	10609	519	10613	520	10627	519	10631	520
10639	519	10651	520	10657	519	10663	521	10667	520	10687	521
10691	522	10709	521	10711	522	10723	522	10729	522	10733	523
10739	523	10753	523	10771	524	10781	524	10789	524	10799	523
10831	525	10837	525	10847	526	10853	526	10859	526	10861	526
10867	527	10883	527	10889	527	10891	527	10903	527	10909	527
10937	529	10939	528	10949	528	10957	529	10973	528	10979	529
10987	530	10993	530	11003	530	11027	531	11047	530	11057	531
11059	532	11069	532	11071	531	11083	533	11087	533	11093	533
11113	533	11117	533	11119	533	11131	534	11149	534	11159	535
11161	534	11171	535	11173	535	11177	535	11197	535	11213	535
11239	536	11243	537	11251	537	11257	537	11261	537	11273	537
11279	538	11287	537	11299	539	11311	539	11317	538	11321	539
11329	539	11351	540	11353	539	11369	541	11383	541	11393	539
11399	541	11411	540	11423	542	11437	542	11443	542	11447	543
11449	543	11467	543	11471	543	11483	544	11489	543	11491	544
11497	544	11503	544	11519	544	11527	544	11549	545	11551	545
11579	546	11587	546	11593	546	11597	546	11617	547	11621	547
11633	547	11657	548	11677	549	11681	549	11689	548	11699	550
11701	549	11717	550	11719	548	11731	550	11743	551	11777	552
11779	551	11783	551	11789	552	11801	552	11807	552	11813	551

**Table 2.** Continue 7

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
11821	551	11827	551	11831	551	11833	552	11839	553	11863	553
11867	554	11881	554	11887	554	11897	555	11903	555	11909	555
11923	556	11927	555	11933	554	11939	555	11941	555	11953	556
11959	556	11969	556	11971	556	11981	556	11987	556	12007	557
12011	557	12037	557	12041	556	12043	558	12049	556	12071	558
12073	559	12097	559	12101	560	12107	560	12109	559	12113	560
12119	559	12143	561	12149	561	12157	562	12161	561	12163	560
12167	561	12197	562	12203	562	12211	562	12227	563	12239	564
12241	563	12251	561	12253	563	12263	564	12269	563	12277	565
12281	564	12289	565	12301	564	12323	563	12329	566	12343	564
12347	566	12373	568	12377	567	12379	567	12391	568	12401	567
12409	567	12413	566	12421	567	12433	568	12437	569	12451	568
12457	569	12473	568	12479	566	12487	570	12491	571	12497	571
12503	571	12511	571	12517	571	12527	572	12539	572	12541	572
12547	571	12553	572	12569	570	12577	573	12583	571	12589	573
12601	573	12611	572	12613	573	12619	574	12637	571	12641	573
12647	574	12653	575	12659	573	12671	575	12689	575	12697	576
12703	576	12713	576	12721	576	12739	577	12743	577	12757	578
12763	576	12769	577	12781	577	12791	577	12799	577	12809	578
12821	578	12823	578	12829	578	12841	579	12853	578	12889	581
12893	580	12899	581	12907	581	12911	580	12917	580	12919	580
12923	581	12941	582	12953	582	12959	581	12967	582	12973	582
12979	582	12983	583	13001	582	13003	581	13007	583	13009	583
13033	584	13037	585	13043	583	13049	585	13063	585	13093	586
13099	586	13103	585	13109	585	13121	586	13127	587	13147	587
13151	587	13159	585	13163	587	13171	587	13177	588	13183	587
13187	588	13217	589	13219	590	13229	588	13241	590	13249	590
13259	590	13267	590	13291	590	13297	590	13309	590	13313	592
13327	591	13331	592	13337	592	13339	592	13367	592	13381	593
13397	593	13399	594	13411	594	13417	594	13421	593	13441	593
13451	593	13457	595	13463	594	13469	595	13477	596	13487	594
13499	595	13513	596	13523	596	13537	597	13553	597	13567	598
13577	598	13591	598	13597	598	13613	598	13619	600	13627	600

**Table 3.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $\text{PG}(2, q)$ ,  $13628 \leq q \leq 50000$ ,  $q$  power prime,  $q \neq 49729$ <sup>§</sup>

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
13633	598	13649	598	13669	599	13679	600	13681	599	13687	599
13691	600	13693	600	13697	600	13709	600	13711	599	13721	601
13723	601	13729	599	13751	602	13757	602	13759	601	13763	601
13781	602	13789	603	13799	603	13807	602	13829	602	13831	601
13841	604	13859	604	13873	605	13877	603	13879	604	13883	604
13901	606	13903	605	13907	604	13913	605	13921	606	13931	607
13933	607	13963	606	13967	608	13997	607	13999	608	14009	606
14011	608	14029	609	14033	609	14051	609	14057	609	14071	608
14081	608	14083	610	14087	609	14107	610	14143	611	14149	611
14153	612	14159	611	14173	612	14177	612	14197	612	14207	612
14221	613	14243	613	14249	613	14251	613	14281	614	14293	614
14303	613	14321	615	14323	616	14327	616	14341	616	14347	615
14369	617	14387	617	14389	618	14401	616	14407	617	14411	616
14419	618	14423	616	14431	619	14437	619	14447	618	14449	617
14461	619	14479	619	14489	618	14503	620	14519	621	14533	620
14537	621	14543	621	14549	620	14551	621	14557	622	14561	620
14563	621	14591	622	14593	623	14621	622	14627	623	14629	622
14633	623	14639	624	14641	623	14653	623	14657	623	14669	623
14683	625	14699	625	14713	624	14717	625	14723	626	14731	626
14737	625	14741	625	14747	625	14753	627	14759	626	14767	626
14771	624	14779	626	14783	625	14797	626	14813	627	14821	628
14827	628	14831	628	14843	629	14851	629	14867	628	14869	629
14879	629	14887	630	14891	629	14897	629	14923	628	14929	631
14939	631	14947	631	14951	631	14957	629	14969	630	14983	629
15013	630	15017	633	15031	633	15053	634	15061	632	15073	634
15077	634	15083	634	15091	634	15101	634	15107	633	15121	635
15131	634	15137	635	15139	635	15149	634	15161	636	15173	636
15187	637	15193	637	15199	637	15217	637	15227	638	15233	635
15241	638	15259	637	15263	639	15269	639	15271	638	15277	639
15287	639	15289	641	15299	639	15307	639	15313	642	15319	639
15329	640	15331	638	15349	639	15359	641	15361	641	15373	641
15377	643	15383	641	15391	639	15401	641	15413	641	15427	641
15439	643	15443	644	15451	644	15461	643	15467	643	15473	644
15493	643	15497	644	15511	643	15527	644	15541	645	15551	645
15559	647	15569	645	15581	646	15583	645	15601	645	15607	647

<sup>§</sup>Sizes smaller than in [5] are written in **bold font**; the new sizes are obtained in this work

**Table 3.** Continue 1

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
15619	647	15625	647	15629	647	15641	645	15643	648	15647	648
15649	646	15661	649	15667	648	15671	648	15679	648	15683	649
15727	650	15731	650	15733	650	15737	650	15739	648	15749	651
15761	650	15767	650	15773	650	15787	650	15791	651	15797	651
15803	650	15809	650	15817	651	15823	652	15859	651	15877	652
15881	652	15887	654	15889	653	15901	652	15907	654	15913	653
15919	654	15923	655	15937	653	15959	652	15971	655	15973	654
15991	656	16001	655	16007	655	16033	656	16057	657	16061	657
16063	657	16067	658	16069	657	16073	657	16087	658	16091	658
16097	658	16103	658	16111	657	16127	660	16129	659	16139	659
16141	659	16183	659	16187	661	16189	660	16193	659	16217	660
16223	661	16229	661	16231	661	16249	663	16253	662	16267	661
16273	663	16301	662	16319	663	16333	662	16339	663	16349	664
16361	664	16363	665	16369	664	16381	663	16384	665	16411	664
16417	666	16421	664	16427	666	16433	667	16447	666	16451	665
16453	667	16477	666	16481	666	16487	667	16493	666	16519	668
16529	668	16547	667	16553	669	16561	669	16567	669	16573	669
16603	669	16607	669	16619	671	16631	670	16633	669	16649	672
16651	670	16657	669	16661	671	16673	671	16691	672	16693	671
16699	670	16703	672	16729	673	16741	672	16747	673	16759	674
16763	673	16787	674	16807	675	16811	674	16823	675	16829	675
16831	675	16843	676	16871	676	16879	675	16883	677	16889	676
16901	676	16903	677	16921	677	16927	675	16931	676	16937	678
16943	676	16963	678	16979	678	16981	678	16987	680	16993	679
17011	679	17021	680	17027	679	17029	679	17033	682	17041	679
17047	678	17053	679	17077	680	17093	681	17099	681	17107	680
17117	683	17123	682	17137	682	17159	682	17161	683	17167	681
17183	683	17189	682	17191	682	17203	681	17207	682	17209	682
17231	684	17239	686	17257	685	17291	685	17293	686	17299	685
17317	684	17321	685	17327	685	17333	685	17341	687	17351	686
17359	687	17377	688	17383	687	17387	687	17389	686	17393	689
17401	687	17417	687	17419	688	17431	688	17443	689	17449	689
17467	689	17471	690	17477	691	17483	690	17489	690	17491	690
17497	690	17509	690	17519	690	17539	691	17551	692	17569	690
17573	691	17579	692	17581	692	17597	693	17599	693	17609	691

**Table 3.** Continue 2

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
17623	693	17627	692	17657	693	17659	691	17669	694	17681	694
17683	693	17707	694	17713	696	17729	693	17737	696	17747	695
17749	695	17761	695	17783	696	17789	695	17791	694	17807	695
17827	698	17837	697	17839	698	17851	696	17863	698	17881	697
17891	698	17903	699	17909	699	17911	699	17921	700	17923	698
17929	700	17939	700	17957	700	17959	701	17971	701	17977	700
17981	701	17987	701	17989	701	18013	700	18041	702	18043	703
18047	702	18049	702	18059	702	18061	702	18077	702	18089	703
18097	702	18119	702	18121	704	18127	703	18131	704	18133	704
18143	705	18149	704	18169	705	18181	706	18191	705	18199	705
18211	706	18217	708	18223	706	18229	705	18233	706	18251	705
18253	707	18257	706	18269	707	18287	706	18289	708	18301	705
18307	707	18311	708	18313	708	18329	709	18341	710	18353	710
18367	707	18371	709	18379	709	18397	709	18401	710	18413	709
18427	711	18433	709	18439	710	18443	711	18451	711	18457	712
18461	711	18481	711	18493	712	18503	711	18517	712	18521	712
18523	713	18539	713	18541	714	18553	714	18583	714	18587	715
18593	711	18617	714	18637	715	18661	716	18671	716	18679	715
18691	717	18701	716	18713	716	18719	717	18731	716	18743	718
18749	717	18757	717	18769	720	18773	716	18787	719	18793	718
18797	719	18803	718	18839	720	18859	716	18869	717	18899	720
18911	719	18913	722	18917	721	18919	721	18947	721	18959	723
18973	724	18979	722	19001	720	19009	724	19013	722	19031	723
19037	723	19051	724	19069	725	19073	725	19079	722	19081	724
19087	725	19121	725	19139	726	19141	727	19157	725	19163	726
19181	726	19183	728	19207	727	19211	727	19213	728	19219	726
19231	726	19237	728	19249	728	19259	728	19267	728	19273	728
19289	728	19301	729	19309	730	19319	730	19321	733	19333	730
19373	731	19379	731	19381	730	19387	731	19391	732	19403	730
19417	731	19421	732	19423	731	19427	732	19429	732	19433	732
19441	734	19447	733	19457	731	19463	733	19469	733	19471	734
19477	733	19483	734	19489	735	19501	731	19507	732	19531	734
19541	734	19543	733	19553	733	19559	735	19571	736	19577	736
19583	735	19597	736	19603	734	19609	736	19661	737	19681	735
19683	740	19687	738	19697	738	19699	739	19709	738	19717	738

**Table 3.** Continue 3

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
19727	739	19739	738	19751	740	19753	740	19759	738	19763	739
19777	740	19793	740	19801	738	19813	739	19819	740	19841	741
19843	742	19853	741	19861	740	19867	741	19889	740	19891	740
19913	741	19919	742	19927	744	19937	743	19949	743	19961	743
19963	743	19973	745	19979	744	19991	742	19993	744	19997	745
20011	744	20021	746	20023	745	20029	745	20047	745	20051	747
20063	746	20071	745	20089	746	20101	746	20107	746	20113	746
20117	747	20123	746	20129	745	20143	748	20147	747	20149	747
20161	748	20173	748	20177	747	20183	749	20201	748	20219	749
20231	750	20233	750	20249	750	20261	751	20269	751	20287	751
20297	750	20323	749	20327	752	20333	752	20341	753	20347	751
20353	752	20357	750	20359	752	20369	751	20389	750	20393	751
20399	751	20407	753	20411	751	20431	752	20441	754	20443	752
20477	753	20479	754	20483	755	20507	754	20509	754	20521	754
20533	754	20543	756	20549	757	20551	754	20563	755	20593	756
20599	753	20611	756	20627	756	20639	758	20641	757	20663	758
20681	759	20693	757	20707	758	20717	759	20719	760	20731	760
20743	760	20747	761	20749	760	20753	759	20759	761	20771	760
20773	760	20789	761	20807	759	20809	762	20849	762	20857	763
20873	763	20879	761	20887	764	20897	763	20899	765	20903	762
20921	762	20929	764	20939	763	20947	764	20959	763	20963	764
20981	762	20983	764	21001	765	21011	766	21013	765	21017	765
21019	765	21023	764	21031	766	21059	766	21061	766	21067	767
21089	768	21101	765	21107	768	21121	768	21139	766	21143	769
21149	766	21157	768	21163	768	21169	766	21179	768	21187	768
21191	770	21193	768	21211	768	21221	769	21227	770	21247	770
21269	771	21277	772	21283	772	21313	772	21317	771	21319	770
21323	770	21341	773	21347	771	21377	773	21379	773	21383	773
21391	773	21397	775	21401	772	21407	774	21419	773	21433	775
21467	771	21481	775	21487	776	21491	776	21493	774	21499	776
21503	774	21517	777	21521	776	21523	775	21529	777	21557	775
21559	775	21563	776	21569	778	21577	776	21587	778	21589	778
21599	777	21601	775	21611	777	21613	778	21617	779	21647	776
21649	778	21661	780	21673	780	21683	779	21701	778	21713	780
21727	780	21737	780	21739	778	21751	780	21757	781	21767	781



**Table 3.** Continue 4

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
21773	782	21787	780	21799	782	21803	782	21817	779	21821	782
21839	782	21841	783	21851	782	21859	782	21863	782	21871	783
21881	784	21893	782	21911	783	21929	785	21937	786	21943	784
21961	786	21977	785	21991	784	21997	787	22003	785	22013	786
22027	787	22031	786	22037	787	22039	786	22051	787	22063	787
22067	787	22073	789	22079	787	22091	787	22093	787	22109	786
22111	787	22123	788	22129	788	22133	789	22147	789	22153	789
22157	788	22159	788	22171	790	22189	788	22193	790	22201	792
22229	790	22247	789	22259	792	22271	792	22273	788	22277	792
22279	793	22283	792	22291	790	22303	792	22307	792	22343	793
22349	793	22367	793	22369	790	22381	790	22391	793	22397	794
22409	793	22433	795	22441	795	22447	795	22453	796	22469	798
22481	795	22483	797	22501	795	22511	796	22531	796	22541	796
22543	795	22549	797	22567	794	22571	797	22573	799	22613	798
22619	798	22621	798	22637	797	22639	798	22643	798	22651	799
22669	797	22679	798	22691	798	22697	799	22699	800	22709	798
22717	798	22721	798	22727	801	22739	798	22741	799	22751	802
22769	801	22777	801	22783	801	22787	800	22801	804	22807	801
22811	803	22817	802	22853	801	22859	803	22861	801	22871	803
22877	804	22901	802	22907	802	22921	804	22937	805	22943	804
22961	805	22963	804	22973	805	22993	804	23003	804	23011	805
23017	808	23021	807	23027	806	23029	807	23039	808	23041	805
23053	809	23057	802	23059	807	23063	810	23071	808	23081	808
23087	806	23099	807	23117	809	23131	809	23143	805	23159	808
23167	809	23173	809	23189	809	23197	810	23201	808	23203	811
23209	809	23227	809	23251	811	23269	811	23279	812	23291	811
23293	814	23297	813	23311	812	23321	812	23327	811	23333	812
23339	812	23357	811	23369	812	23371	812	23399	813	23417	812
23431	814	23447	813	23459	816	23473	816	23497	815	23509	814
23531	817	23537	815	23539	816	23549	814	23557	817	23561	813
23563	817	23567	817	23581	817	23593	816	23599	817	23603	817
23609	817	23623	818	23627	816	23629	818	23633	816	23663	819
23669	818	23671	819	23677	820	23687	817	23689	817	23719	819
23741	819	23743	821	23747	819	23753	818	23761	822	23767	823
23773	819	23789	821	23801	821	23813	821	23819	819	23827	822

**Table 3.** Continue 5

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
23831	820	23833	820	23857	824	23869	822	23873	822	23879	824
23887	823	23893	823	23899	823	23909	822	23911	823	23917	824
23929	825	23957	823	23971	825	23977	823	23981	826	23993	822
24001	825	24007	826	24019	827	24023	824	24029	824	24043	826
24049	824	24061	827	24071	825	24077	827	24083	827	24091	826
24097	828	24103	825	24107	828	24109	827	24113	828	24121	829
24133	827	24137	827	24151	830	24169	828	24179	829	24181	827
24197	830	24203	828	24223	830	24229	831	24239	829	24247	831
24251	829	24281	830	24317	831	24329	831	24337	832	24359	833
24371	833	24373	833	24379	833	24389	836	24391	832	24407	831
24413	833	24419	834	24421	834	24439	833	24443	832	24469	832
24473	832	24481	834	24499	835	24509	834	24517	835	24527	835
24533	834	24547	835	24551	835	24571	836	24593	835	24611	836
24623	837	24631	838	24649	838	24659	837	24671	837	24677	837
24683	835	24691	839	24697	839	24709	839	24733	838	24749	839
24763	838	24767	840	24781	842	24793	839	24799	838	24809	841
24821	840	24841	842	24847	843	24851	842	24859	842	24877	840
24889	843	24907	843	24917	843	24919	846	24923	842	24943	845
24953	845	24967	843	24971	843	24977	844	24979	844	24989	843
25013	843	25031	846	25033	846	25037	845	25057	845	25073	845
25087	843	25097	845	25111	845	25117	847	25121	847	25127	846
25147	847	25153	849	25163	848	25169	847	25171	846	25183	848
25189	848	25219	848	25229	847	25237	849	25243	849	25247	848
25253	848	25261	847	25301	848	25303	850	25307	850	25309	850
25321	850	25339	851	25343	850	25349	851	25357	850	25367	852
25373	852	25391	853	25409	852	25411	850	25423	853	25439	852
25447	855	25453	854	25457	855	25463	853	25469	852	25471	853
25523	853	25537	854	25541	853	25561	855	25577	856	25579	856
25583	856	25589	854	25601	855	25603	856	25609	855	25621	853
25633	856	25639	856	25643	855	25657	857	25667	858	25673	855
25679	859	25693	856	25703	857	25717	859	25733	858	25741	857
25747	858	25759	859	25763	860	25771	861	25793	858	25799	858
25801	861	25819	862	25841	861	25847	859	25849	862	25867	862
25873	860	25889	860	25903	861	25913	862	25919	863	25931	858
25933	858	25939	861	25943	860	25951	860	25969	862	25981	862

**Table 3.** Continue 6

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
25997	865	25999	865	26003	863	26017	863	26021	864	26029	863
26041	862	26053	864	26083	865	26099	865	26107	865	26111	864
26113	864	26119	865	26141	866	26153	868	26161	864	26171	864
26177	867	26183	867	26189	867	26203	867	26209	867	26227	866
26237	867	26249	866	26251	867	26261	868	26263	867	26267	866
26293	867	26297	868	26309	869	26317	869	26321	871	26339	871
26347	870	26357	870	26371	868	26387	872	26393	871	26399	870
26407	871	26417	869	26423	869	26431	871	26437	872	26449	870
26459	871	26479	872	26489	869	26497	874	26501	872	26513	874
26539	873	26557	873	26561	872	26569	873	26573	875	26591	874
26597	876	26627	871	26633	876	26641	874	26647	875	26669	876
26681	875	26683	875	26687	878	26693	875	26699	874	26701	876
26711	876	26713	877	26717	876	26723	876	26729	877	26731	875
26737	875	26759	880	26777	878	26783	878	26801	872	26813	879
26821	880	26833	880	26839	879	26849	879	26861	882	26863	879
26879	880	26881	878	26891	879	26893	879	26903	879	26921	878
26927	877	26947	880	26951	881	26953	881	26959	880	26981	882
26987	880	26993	884	27011	881	27017	881	27031	882	27043	880
27059	882	27061	885	27067	882	27073	882	27077	885	27091	885
27103	884	27107	883	27109	885	27127	884	27143	886	27179	884
27191	887	27197	886	27211	884	27239	886	27241	887	27253	886
27259	885	27271	886	27277	886	27281	888	27283	887	27299	888
27329	885	27337	889	27361	886	27367	890	27397	888	27407	888
27409	888	27427	891	27431	891	27437	888	27449	888	27457	891
27479	890	27481	889	27487	888	27509	890	27527	891	27529	892
27539	894	27541	891	27551	891	27581	891	27583	892	27611	894
27617	894	27631	893	27647	895	27653	896	27673	894	27689	896
27691	896	27697	895	27701	893	27733	893	27737	896	27739	894
27743	895	27749	897	27751	897	27763	896	27767	896	27773	898
27779	893	27791	896	27793	894	27799	897	27803	896	27809	898
27817	898	27823	894	27827	896	27847	897	27851	895	27883	897
27889	901	27893	898	27901	897	27917	899	27919	900	27941	901
27943	899	27947	900	27953	899	27961	900	27967	901	27983	899
27997	900	28001	897	28019	901	28027	902	28031	901	28051	899
28057	903	28069	901	28081	903	28087	900	28097	902	28099	901

**Table 3.** Continue 7

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
28109	902	28111	903	28123	902	28151	901	28163	900	28181	902
28183	903	28201	903	28211	903	28219	903	28229	903	28277	904
28279	903	28283	907	28289	902	28297	904	28307	903	28309	906
28319	905	28349	906	28351	907	28387	907	28393	906	28403	908
28409	906	28411	908	28429	907	28433	905	28439	906	28447	909
28463	908	28477	907	28493	909	28499	909	28513	910	28517	908
28537	911	28541	910	28547	910	28549	908	28559	911	28561	913
28571	910	28573	910	28579	908	28591	911	28597	912	28603	908
28607	912	28619	913	28621	910	28627	910	28631	912	28643	913
28649	911	28657	911	28661	913	28663	911	28669	909	28687	913
28697	911	28703	912	28711	912	28723	914	28729	912	28751	915
28753	915	28759	911	28771	916	28789	914	28793	916	28807	912
28813	913	28817	915	28837	916	28843	914	28859	917	28867	915
28871	914	28879	916	28901	914	28909	914	28921	915	28927	916
28933	917	28949	915	28961	916	28979	917	29009	917	29017	922
29021	919	29023	918	29027	917	29033	918	29059	919	29063	919
29077	919	29101	920	29123	921	29129	921	29131	918	29137	919
29147	924	29153	922	29167	919	29173	919	29179	922	29191	923
29201	923	29207	920	29209	920	29221	919	29231	921	29243	924
29251	921	29269	921	29287	925	29297	923	29303	924	29311	924
29327	923	29333	922	29339	925	29347	924	29363	925	29383	923
29387	924	29389	926	29399	922	29401	923	29411	924	29423	927
29429	928	29437	926	29443	924	29453	927	29473	928	29483	928
29501	926	29527	928	29531	927	29537	929	29567	928	29569	926
29573	928	29581	928	29587	927	29599	929	29611	927	29629	929
29633	928	29641	930	29663	931	29669	928	29671	928	29683	931
29717	931	29723	933	29741	930	29753	933	29759	933	29761	931
29789	932	29791	938	29803	932	29819	933	29833	934	29837	933
29851	932	29863	934	29867	929	29873	931	29879	934	29881	935
29917	931	29921	935	29927	937	29929	938	29947	936	29959	935
29983	934	29989	937	30011	934	30013	933	30029	934	30047	935
30059	939	30071	937	30089	936	30091	933	30097	939	30103	937
30109	939	30113	938	30119	934	30133	939	30137	938	30139	940
30161	938	30169	938	30181	941	30187	939	30197	940	30203	938
30211	939	30223	940	30241	941	30253	939	30259	940	30269	941

**Table 3.** Continue 8

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
30271	940	30293	941	30307	939	30313	940	30319	941	30323	942
30341	941	30347	945	30367	940	30389	942	30391	942	30403	943
30427	943	30431	943	30449	942	30467	945	30469	942	30491	946
30493	941	30497	946	30509	945	30517	944	30529	945	30539	943
30553	945	30557	945	30559	947	30577	946	30593	947	30631	948
30637	944	30643	948	30649	946	30661	945	30671	947	30677	945
30689	949	30697	949	30703	946	30707	946	30713	948	30727	950
30757	949	30763	951	30773	951	30781	950	30803	947	30809	950
30817	948	30829	948	30839	949	30841	950	30851	953	30853	949
30859	951	30869	953	30871	951	30881	950	30893	951	30911	952
30931	953	30937	952	30941	952	30949	949	30971	952	30977	951
30983	953	31013	954	31019	952	31033	954	31039	955	31051	953
31063	954	31069	955	31079	958	31081	950	31091	956	31121	955
31123	954	31139	955	31147	957	31151	956	31153	956	31159	956
31177	953	31181	959	31183	957	31189	956	31193	956	31219	958
31223	957	31231	960	31237	960	31247	957	31249	955	31253	957
31259	959	31267	958	31271	958	31277	960	31307	958	31319	961
31321	961	31327	960	31333	961	31337	961	31357	959	31379	959
31387	962	31391	959	31393	960	31397	959	31469	962	31477	963
31481	959	31489	961	31511	961	31513	962	31517	963	31531	965
31541	962	31543	962	31547	964	31567	961	31573	965	31583	962
31601	962	31607	963	31627	965	31643	965	31649	963	31657	965
31663	963	31667	966	31687	966	31699	967	31721	963	31723	966
31727	963	31729	969	31741	967	31751	966	31769	966	31771	967
31793	965	31799	966	31817	967	31847	969	31849	968	31859	965
31873	970	31883	968	31891	967	31907	966	31957	968	31963	968
31973	967	31981	969	31991	970	32003	969	32009	971	32027	971
32029	974	32041	974	32051	969	32057	969	32059	973	32063	971
32069	972	32077	973	32083	972	32089	972	32099	972	32117	972
32119	972	32141	973	32143	972	32159	974	32173	974	32183	972
32189	972	32191	975	32203	973	32213	972	32233	975	32237	977
32251	978	32257	974	32261	977	32297	975	32299	974	32303	977
32309	974	32321	975	32323	977	32327	975	32341	976	32353	974
32359	976	32363	978	32369	977	32371	975	32377	977	32381	978
32401	979	32411	976	32413	978	32423	977	32429	977	32441	978

**Table 3.** Continue 9

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
32443	977	32467	980	32479	979	32491	981	32497	982	32503	979
32507	981	32531	981	32533	977	32537	980	32561	978	32563	982
32569	981	32573	981	32579	981	32587	982	32603	978	32609	979
32611	981	32621	981	32633	983	32647	980	32653	981	32687	983
32693	983	32707	978	32713	982	32717	982	32719	982	32749	983
32761	986	32768	987	32771	984	32779	985	32783	983	32789	984
32797	983	32801	981	32803	985	32831	985	32833	985	32839	982
32843	982	32869	983	32887	987	32909	985	32911	986	32917	986
32933	985	32939	987	32941	987	32957	989	32969	987	32971	989
32983	986	32987	990	32993	985	32999	986	33013	988	33023	988
33029	989	33037	991	33049	990	33053	987	33071	989	33073	987
33083	988	33091	988	33107	989	33113	992	33119	991	33149	985
33151	991	33161	990	33179	989	33181	991	33191	989	33199	991
33203	990	33211	991	33223	990	33247	991	33287	989	33289	993
33301	990	33311	994	33317	991	33329	992	33331	993	33343	994
33347	994	33349	995	33353	992	33359	993	33377	994	33391	993
33403	996	33409	995	33413	993	33427	994	33457	995	33461	993
33469	993	33479	994	33487	992	33493	994	33503	996	33521	995
33529	999	33533	998	33547	998	33563	998	33569	999	33577	1000
33581	999	33587	996	33589	995	33599	995	33601	996	33613	995
33617	1000	33619	997	33623	998	33629	998	33637	999	33641	1000
33647	1001	33679	1002	33703	998	33713	1000	33721	1001	33739	1001
33749	1000	33751	1001	33757	998	33767	1000	33769	999	33773	1001
33791	1000	33797	1002	33809	1000	33811	1002	33827	1002	33829	1002
33851	1002	33857	1003	33863	1001	33871	1002	33889	1003	33893	1003
33911	1003	33923	1003	33931	1002	33937	1001	33941	1000	33961	1003
33967	1005	33997	1005	34019	1002	34031	1006	34033	1004	34039	1003
34057	1005	34061	1007	34123	1006	34127	1004	34129	1007	34141	1008
34147	1010	34157	1006	34159	1009	34171	1008	34183	1006	34211	1007
34213	1006	34217	1008	34231	1007	34253	1007	34259	1012	34261	1008
34267	1010	34273	1011	34283	1010	34297	1010	34301	1009	34303	1010
34313	1011	34319	1010	34327	1009	34337	1010	34351	1010	34361	1010
34367	1012	34369	1009	34381	1007	34403	1011	34421	1011	34429	1013
34439	1012	34457	1012	34469	1012	34471	1015	34483	1014	34487	1012
34499	1013	34501	1014	34511	1015	34513	1012	34519	1012	34537	1012

**Table 3.** Continue 10

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
34543	1015	34549	1013	34583	1013	34589	1012	34591	1015	34603	1015
34607	1014	34613	1015	34631	1012	34649	1014	34651	1017	34667	1018
34673	1016	34679	1015	34687	1017	34693	1018	34703	1013	34721	1016
34729	1020	34739	1017	34747	1016	34757	1017	34759	1017	34763	1018
34781	1019	34807	1021	34819	1018	34841	1019	34843	1020	34847	1019
34849	1016	34871	1018	34877	1019	34883	1018	34897	1018	34913	1020
34919	1020	34939	1018	34949	1021	34961	1022	34963	1020	34981	1022
35023	1019	35027	1018	35051	1022	35053	1019	35059	1021	35069	1021
35081	1020	35083	1024	35089	1021	35099	1022	35107	1022	35111	1023
35117	1021	35129	1020	35141	1022	35149	1022	35153	1023	35159	1025
35171	1022	35201	1023	35221	1027	35227	1024	35251	1027	35257	1025
35267	1026	35279	1024	35281	1024	35291	1024	35311	1022	35317	1028
35323	1027	35327	1026	35339	1023	35353	1026	35363	1025	35381	1028
35393	1028	35401	1028	35407	1028	35419	1028	35423	1028	35437	1031
35447	1028	35449	1028	35461	1027	35491	1029	35507	1029	35509	1028
35521	1029	35527	1031	35531	1028	35533	1032	35537	1029	35543	1028
35569	1030	35573	1030	35591	1033	35593	1029	35597	1032	35603	1033
35617	1033	35671	1032	35677	1028	35729	1032	35731	1033	35747	1035
35753	1032	35759	1035	35771	1032	35797	1035	35801	1033	35803	1034
35809	1036	35831	1035	35837	1033	35839	1032	35851	1034	35863	1034
35869	1037	35879	1036	35897	1034	35899	1033	35911	1036	35923	1037
35933	1034	35951	1037	35963	1036	35969	1037	35977	1036	35983	1033
35993	1037	35999	1035	36007	1039	36011	1038	36013	1035	36017	1038
36037	1036	36061	1037	36067	1037	36073	1041	36083	1036	36097	1037
36107	1040	36109	1036	36131	1038	36137	1040	36151	1038	36161	1036
36187	1039	36191	1040	36209	1038	36217	1041	36229	1042	36241	1038
36251	1039	36263	1044	36269	1038	36277	1044	36293	1043	36299	1044
36307	1042	36313	1044	36319	1043	36341	1042	36343	1044	36353	1046
36373	1042	36383	1041	36389	1042	36433	1042	36451	1043	36457	1045
36467	1047	36469	1045	36473	1046	36479	1047	36481	1051	36493	1046
36497	1044	36523	1044	36527	1044	36529	1045	36541	1042	36551	1048
36559	1046	36563	1046	36571	1048	36583	1048	36587	1047	36599	1046
36607	1044	36629	1049	36637	1044	36643	1045	36653	1048	36671	1047
36677	1049	36683	1049	36691	1048	36697	1048	36709	1050	36713	1048
36721	1051	36739	1049	36749	1051	36761	1050	36767	1048	36779	1048

**Table 3.** Continue 11

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
36781	1050	36787	1053	36791	1052	36793	1053	36809	1050	36821	1047
36833	1051	36847	1052	36857	1051	36871	1053	36877	1048	36887	1054
36899	1050	36901	1050	36913	1054	36919	1052	36923	1055	36929	1054
36931	1053	36943	1052	36947	1052	36973	1050	36979	1054	36997	1055
37003	1052	37013	1055	37019	1054	37021	1050	37039	1056	37049	1055
37057	1053	37061	1057	37087	1055	37097	1057	37117	1052	37123	1053
37139	1056	37159	1056	37171	1059	37181	1056	37189	1058	37199	1058
37201	1055	37217	1053	37223	1058	37243	1057	37249	1061	37253	1058
37273	1059	37277	1060	37307	1059	37309	1058	37313	1058	37321	1060
37337	1062	37339	1058	37357	1058	37361	1056	37363	1057	37369	1054
37379	1058	37397	1060	37409	1059	37423	1060	37441	1061	37447	1060
37463	1058	37483	1060	37489	1060	37493	1061	37501	1064	37507	1060
37511	1064	37517	1055	37529	1062	37537	1068	37547	1062	37549	1061
37561	1061	37567	1061	37571	1062	37573	1060	37579	1062	37589	1063
37591	1062	37607	1063	37619	1063	37633	1063	37643	1063	37649	1063
37657	1066	37663	1063	37691	1065	37693	1066	37699	1062	37717	1067
37747	1061	37781	1065	37783	1064	37799	1066	37811	1065	37813	1069
37831	1065	37847	1065	37853	1064	37861	1064	37871	1067	37879	1064
37889	1067	37897	1065	37907	1069	37951	1069	37957	1067	37963	1072
37967	1062	37987	1066	37991	1068	37993	1069	37997	1070	38011	1070
38039	1073	38047	1072	38053	1072	38069	1068	38083	1073	38113	1072
38119	1072	38149	1070	38153	1070	38167	1073	38177	1071	38183	1071
38189	1072	38197	1077	38201	1071	38219	1069	38231	1070	38237	1074
38239	1072	38261	1072	38273	1072	38281	1073	38287	1072	38299	1075
38303	1073	38317	1076	38321	1072	38327	1073	38329	1071	38333	1073
38351	1075	38371	1073	38377	1072	38393	1076	38431	1076	38447	1075
38449	1078	38453	1076	38459	1075	38461	1075	38501	1075	38543	1079
38557	1075	38561	1083	38567	1083	38569	1078	38593	1080	38603	1078
38609	1080	38611	1079	38629	1077	38639	1081	38651	1076	38653	1081
38669	1082	38671	1079	38677	1080	38693	1083	38699	1083	38707	1080
38711	1081	38713	1082	38723	1078	38729	1080	38737	1081	38747	1081
38749	1079	38767	1081	38783	1081	38791	1080	38803	1084	38809	1087
38821	1082	38833	1081	38839	1078	38851	1087	38861	1081	38867	1084
38873	1084	38891	1084	38903	1079	38917	1082	38921	1082	38923	1084
38933	1081	38953	1085	38959	1081	38971	1084	38977	1084	38993	1083



**Table 3.** Continue 12

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
39019	1082	39023	1087	39041	1084	39043	1086	39047	1086	39079	1088
39089	1085	39097	1090	39103	1086	39107	1087	39113	1089	39119	1088
39133	1090	39139	1087	39157	1086	39161	1086	39163	1093	39181	1087
39191	1090	39199	1091	39209	1089	39217	1088	39227	1088	39229	1091
39233	1092	39239	1091	39241	1090	39251	1089	39293	1090	39301	1087
39313	1091	39317	1089	39323	1090	39341	1086	39343	1093	39359	1090
39367	1093	39371	1090	39373	1092	39383	1093	39397	1089	39409	1093
39419	1091	39439	1090	39443	1094	39451	1091	39461	1092	39499	1090
39503	1091	39509	1094	39511	1095	39521	1091	39541	1094	39551	1089
39563	1092	39569	1096	39581	1094	39601	1102	39607	1092	39619	1094
39623	1096	39631	1093	39659	1095	39667	1097	39671	1095	39679	1096
39703	1093	39709	1099	39719	1095	39727	1095	39733	1097	39749	1098
39761	1095	39769	1096	39779	1096	39791	1096	39799	1098	39821	1098
39827	1100	39829	1100	39839	1095	39841	1101	39847	1101	39857	1096
39863	1100	39869	1098	39877	1101	39883	1098	39887	1099	39901	1101
39929	1103	39937	1103	39953	1101	39971	1103	39979	1100	39983	1100
39989	1105	40009	1098	40013	1104	40031	1101	40037	1103	40039	1098
40063	1103	40087	1102	40093	1102	40099	1106	40111	1104	40123	1105
40127	1104	40129	1106	40151	1104	40153	1106	40163	1103	40169	1102
40177	1105	40189	1100	40193	1106	40213	1101	40231	1107	40237	1104
40241	1108	40253	1104	40277	1105	40283	1105	40289	1105	40343	1105
40351	1108	40357	1106	40361	1107	40387	1107	40423	1106	40427	1103
40429	1110	40433	1110	40459	1109	40471	1105	40483	1110	40487	1109
40493	1107	40499	1111	40507	1106	40519	1109	40529	1109	40531	1107
40543	1111	40559	1110	40577	1112	40583	1110	40591	1113	40597	1109
40609	1110	40627	1112	40637	1110	40639	1110	40693	1111	40697	1112
40699	1111	40709	1112	40739	1111	40751	1113	40759	1112	40763	1111
40771	1111	40787	1114	40801	1113	40813	1110	40819	1114	40823	1114
40829	1116	40841	1116	40847	1113	40849	1112	40853	1113	40867	1118
40879	1116	40883	1115	40897	1113	40903	1115	40927	1118	40933	1115
40939	1114	40949	1115	40961	1117	40973	1117	40993	1116	41011	1115
41017	1115	41023	1115	41039	1114	41047	1119	41051	1116	41057	1118
41077	1119	41081	1117	41113	1121	41117	1114	41131	1115	41141	1120
41143	1120	41149	1119	41161	1120	41177	1119	41179	1119	41183	1123
41189	1119	41201	1122	41203	1117	41213	1120	41221	1119	41227	1121

**Table 3.** Continue 13

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
41231	1120	41233	1118	41243	1123	41257	1118	41263	1124	41269	1118
41281	1122	41299	1120	41333	1121	41341	1120	41351	1126	41357	1123
41381	1123	41387	1122	41389	1119	41399	1122	41411	1124	41413	1121
41443	1123	41453	1123	41467	1125	41479	1120	41491	1123	41507	1123
41513	1127	41519	1125	41521	1124	41539	1122	41543	1127	41549	1127
41579	1125	41593	1122	41597	1125	41603	1123	41609	1127	41611	1128
41617	1125	41621	1125	41627	1128	41641	1128	41647	1124	41651	1125
41659	1125	41669	1124	41681	1130	41687	1128	41719	1129	41729	1123
41737	1127	41759	1128	41761	1128	41771	1128	41777	1124	41801	1129
41809	1126	41813	1130	41843	1130	41849	1128	41851	1130	41863	1128
41879	1129	41887	1130	41893	1130	41897	1132	41903	1128	41911	1130
41927	1132	41941	1131	41947	1133	41953	1133	41957	1132	41959	1129
41969	1130	41981	1133	41983	1132	41999	1134	42013	1131	42017	1131
42019	1133	42023	1132	42043	1133	42061	1132	42071	1136	42073	1129
42083	1131	42089	1131	42101	1131	42131	1136	42139	1134	42157	1131
42169	1135	42179	1132	42181	1133	42187	1137	42193	1137	42197	1137
42209	1137	42221	1132	42223	1135	42227	1135	42239	1133	42257	1137
42281	1131	42283	1137	42293	1134	42299	1136	42307	1134	42323	1139
42331	1137	42337	1137	42349	1136	42359	1136	42373	1138	42379	1137
42391	1137	42397	1137	42403	1135	42407	1139	42409	1139	42433	1134
42437	1139	42443	1140	42451	1136	42457	1141	42461	1139	42463	1136
42467	1140	42473	1138	42487	1140	42491	1140	42499	1139	42509	1139
42533	1141	42557	1139	42569	1137	42571	1143	42577	1142	42589	1142
42611	1139	42641	1143	42643	1142	42649	1143	42667	1144	42677	1141
42683	1144	42689	1142	42697	1144	42701	1139	42703	1141	42709	1144
42719	1141	42727	1145	42737	1139	42743	1143	42751	1143	42767	1141
42773	1144	42787	1142	42793	1142	42797	1141	42821	1138	42829	1145
42839	1145	42841	1144	42853	1143	42859	1146	42863	1143	42899	1143
42901	1146	42923	1143	42929	1141	42937	1145	42943	1147	42953	1146
42961	1149	42967	1146	42979	1145	42989	1145	43003	1144	43013	1147
43019	1143	43037	1147	43049	1144	43051	1149	43063	1144	43067	1145
43093	1148	43103	1149	43117	1148	43133	1152	43151	1150	43159	1146
43177	1149	43189	1151	43201	1149	43207	1148	43223	1147	43237	1152
43261	1151	43271	1156	43283	1150	43291	1153	43313	1150	43319	1152
43321	1151	43331	1152	43391	1149	43397	1151	43399	1154	43403	1156

**Table 3.** Continue 14

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
43411	1152	43427	1152	43441	1157	43451	1153	43457	1153	43481	1153
43487	1156	43499	1154	43517	1153	43541	1157	43543	1153	43573	1153
43577	1157	43579	1157	43591	1154	43597	1157	43607	1157	43609	1154
43613	1153	43627	1154	43633	1153	43649	1156	43651	1158	43661	1152
43669	1157	43691	1156	43711	1159	43717	1155	43721	1156	43753	1153
43759	1158	43777	1157	43781	1160	43783	1159	43787	1156	43789	1157
43793	1158	43801	1161	43853	1160	43867	1165	43889	1164	43891	1160
43913	1163	43933	1163	43943	1161	43951	1161	43961	1162	43963	1162
43969	1161	43973	1164	43987	1162	43991	1162	43997	1165	44017	1162
44021	1161	44027	1163	44029	1161	44041	1163	44053	1161	44059	1163
44071	1166	44087	1162	44089	1165	44101	1164	44111	1163	44119	1160
44123	1163	44129	1162	44131	1166	44159	1161	44171	1162	44179	1163
44189	1162	44201	1162	44203	1169	44207	1164	44221	1161	44249	1163
44257	1164	44263	1167	44267	1165	44269	1164	44273	1167	44279	1163
44281	1163	44293	1167	44351	1166	44357	1172	44371	1165	44381	1169
44383	1166	44389	1167	44417	1166	44449	1170	44453	1168	44483	1170
44491	1169	44497	1173	44501	1168	44507	1169	44519	1171	<b>44521</b>	<b>1177</b>
44531	1167	44533	1168	44537	1172	44543	1172	44549	1168	44563	1168
44579	1170	44587	1170	44617	1169	44621	1169	44623	1172	44633	1173
44641	1169	44647	1170	44651	1175	44657	1170	44683	1169	44687	1174
44699	1174	44701	1173	44711	1172	44729	1172	44741	1173	44753	1170
44771	1171	44773	1170	44777	1171	44789	1169	44797	1168	44809	1172
44819	1172	44839	1173	44843	1173	44851	1177	44867	1175	44879	1178
44887	1175	44893	1176	44909	1175	44917	1174	44927	1174	44939	1176
44953	1174	44959	1172	44963	1175	44971	1176	44983	1179	44987	1173
45007	1175	45013	1178	45053	1177	45061	1176	45077	1179	45083	1181
45119	1176	45121	1177	45127	1177	45131	1178	45137	1181	45139	1175
45161	1178	45179	1178	45181	1177	45191	1181	45197	1177	45233	1176
45247	1177	45259	1180	45263	1182	45281	1176	45289	1178	45293	1186
45307	1176	45317	1176	45319	1183	45329	1183	45337	1179	45341	1183
45343	1182	45361	1185	45377	1185	45389	1185	45403	1178	45413	1182
45427	1178	45433	1184	45439	1182	45481	1182	45491	1185	45497	1182
45503	1188	45523	1187	45533	1182	45541	1187	45553	1186	45557	1182
45569	1184	45587	1176	45589	1185	45599	1180	45613	1180	45631	1184
45641	1182	45659	1184	45667	1189	45673	1191	45677	1186	45691	1185

**Table 3.** Continue 15

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
45697	1189	45707	1185	45737	1184	45751	1187	45757	1188	45763	1188
45767	1190	45779	1187	45817	1193	45821	1188	45823	1190	45827	1187
45833	1184	45841	1186	45853	1191	45863	1193	45869	1188	45887	1187
45893	1189	45943	1192	45949	1191	45953	1193	45959	1191	45971	1194
45979	1190	45989	1187	46021	1193	46027	1195	46049	1189	46051	1192
46061	1191	46073	1194	46091	1189	46093	1187	46099	1190	46103	1194
46133	1192	46141	1193	46147	1190	46153	1191	46171	1193	46181	1190
46183	1192	46187	1196	46199	1197	46219	1194	46229	1196	46237	1197
46261	1194	46271	1194	46273	1194	46279	1197	46301	1195	46307	1197
46309	1194	46327	1192	46337	1194	46349	1195	46351	1198	46381	1195
46399	1200	46411	1193	46439	1198	46441	1199	46447	1198	46451	1202
46457	1199	46471	1193	46477	1192	46489	1198	46499	1199	46507	1195
46511	1200	46523	1198	46549	1200	46559	1201	46567	1196	46573	1204
46589	1197	46591	1195	46601	1199	46619	1201	46633	1199	46639	1199
46643	1206	46649	1202	46663	1205	46679	1199	46681	1204	46687	1204
46691	1204	46703	1200	46723	1205	46727	1200	46747	1202	46751	1201
46757	1204	46769	1202	46771	1207	46807	1204	46811	1202	46817	1202
46819	1204	46829	1205	46831	1208	46853	1205	46861	1200	46867	1198
46877	1204	46889	1200	46901	1204	46919	1204	46933	1205	46957	1205
46993	1208	46997	1204	47017	1205	47041	1209	47051	1206	47057	1208
47059	1208	47087	1208	47093	1210	47111	1206	47119	1208	47123	1210
47129	1206	47137	1205	47143	1208	47147	1210	47149	1209	47161	1205
47189	1211	47207	1210	47221	1206	47237	1206	47251	1208	47269	1208
47279	1210	47287	1212	47293	1211	47297	1205	47303	1208	47309	1213
47317	1209	47339	1206	47351	1212	47353	1206	47363	1211	47381	1211
47387	1205	47389	1214	47407	1212	47417	1214	47419	1210	47431	1213
47441	1213	47459	1212	47491	1211	47497	1216	47501	1210	47507	1213
47513	1211	47521	1208	47527	1214	47533	1214	47543	1212	47563	1216
47569	1217	47581	1215	47591	1211	47599	1214	47609	1215	47623	1214
47629	1216	47639	1215	47653	1214	47657	1219	47659	1213	47681	1218
47699	1215	47701	1216	47711	1217	47713	1217	47717	1219	47737	1217
47741	1218	47743	1215	47777	1217	47779	1215	47791	1215	47797	1214
47807	1221	47809	1219	47819	1220	47837	1215	47843	1220	47857	1215
47869	1217	47881	1215	47903	1220	47911	1217	47917	1216	47933	1223
47939	1218	47947	1222	47951	1216	47963	1219	47969	1218	47977	1221

**Table 3.** Continue 16

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
47981	1222	48017	1221	48023	1224	48029	1219	48049	1224	48073	1224
48079	1217	48091	1221	48109	1223	48119	1223	48121	1225	48131	1221
48157	1220	48163	1223	48179	1223	48187	1219	48193	1225	48197	1224
48221	1221	48239	1220	48247	1222	48259	1225	48271	1226	48281	1216
48299	1221	48311	1222	48313	1227	48337	1223	48341	1223	48353	1222
48371	1228	48383	1223	48397	1224	48407	1228	48409	1221	48413	1224
48437	1225	48449	1227	48463	1224	48473	1227	48479	1223	48481	1224
48487	1228	48491	1225	48497	1227	48523	1229	48527	1229	48533	1225
48539	1224	48541	1228	48563	1228	48571	1228	48589	1227	48593	1225
48611	1225	48619	1230	48623	1232	48647	1228	48649	1227	48661	1230
48673	1237	48677	1231	48679	1226	48731	1225	48733	1228	48751	1230
48757	1233	48761	1228	48767	1234	48779	1231	48781	1232	48787	1234
48799	1229	48809	1228	48817	1229	48821	1234	48823	1230	48847	1233
48857	1232	48859	1229	48869	1230	48871	1233	48883	1233	48889	1234
48907	1232	48947	1233	48953	1234	48973	1235	48989	1231	48991	1233
49003	1232	49009	1230	49019	1236	49031	1236	49033	1231	49037	1232
49043	1230	49057	1232	49069	1233	49081	1236	49103	1233	<b>49109</b>	<b>1244</b>
49117	1232	49121	1234	49123	1237	49139	1237	49157	1239	49169	1240
49171	1236	49177	1230	49193	1232	49199	1240	49201	1230	49207	1234
49211	1237	49223	1234	49253	1237	49261	1237	49277	1240	49279	1238
49297	1238	49307	1235	49331	1239	49333	1235	49339	1239	49363	1240
49367	1239	49369	1238	49391	1237	49393	1241	49409	1236	49411	1236
49417	1238	49429	1239	49433	1238	49451	1239	49459	1235	49463	1236
49477	1239	49481	1240	49499	1238	49523	1240	49529	1242	49531	1241
49537	1239	49547	1239	49549	1242	49559	1246	49597	1239	49603	1240
49613	1241	49627	1244	49633	1244	49639	1241	49663	1243	49667	1247
49669	1247	49681	1243	49697	1243	49711	1245	49727	1240	49739	1243
49741	1246	49747	1243	49757	1246	49783	1243	49787	1245	49789	1246
49801	1247	49807	1246	49811	1242	49823	1244	49831	1241	49843	1248
49853	1250	49871	1248	49877	1245	49891	1248	49919	1244	49921	1246
49927	1246	49937	1247	49939	1245	49943	1247	49957	1248	49991	1245
49993	1252	49999	1246								

**Table 4.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $\text{PG}(2, q)$ ,  $50001 \leq q \leq 100000$ ,  $q$  prime<sup>¶</sup>

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
50021	1247	50023	1248	50033	1248	50047	1249	50051	1252	50053	1244
50069	1247	50077	1253	50087	1248	50093	1244	50101	1250	50111	1253
50119	1251	50123	1250	50129	1253	50131	1248	50147	1252	50153	1254
50159	1247	50177	1247	50207	1247	50221	1254	50227	1255	50231	1255
50261	1253	50263	1251	50273	1249	50287	1252	50291	1253	50311	1253
50321	1248	50329	1251	50333	1252	50341	1253	50359	1253	50363	1252
50377	1258	50383	1254	50387	1252	50411	1255	50417	1255	50423	1252
50441	1256	50459	1259	50461	1254	50497	1252	50503	1252	50513	1253
50527	1252	50539	1258	50543	1258	50549	1256	50551	1258	50581	1258
50587	1257	50591	1257	50593	1258	50599	1257	50627	1256	50647	1256
50651	1255	50671	1258	50683	1260	50707	1259	50723	1257	50741	1258
50753	1257	50767	1262	50773	1259	50777	1259	50789	1262	50821	1257
50833	1258	50839	1260	50849	1262	50857	1261	50867	1258	50873	1261
50891	1262	50893	1262	50909	1259	50923	1261	50929	1262	50951	1262
50957	1260	50969	1264	50971	1262	50989	1259	50993	1258	51001	1264
51031	1265	51043	1264	51047	1266	51059	1265	51061	1261	51071	1258
51109	1265	51131	1266	51133	1267	51137	1262	51151	1264	51157	1266
51169	1265	51193	1264	51197	1264	51199	1263	51203	1267	51217	1262
51229	1266	51239	1265	51241	1267	51257	1260	51263	1267	51283	1267
51287	1267	51307	1270	51329	1271	51341	1265	51343	1268	51347	1270
51349	1265	51361	1266	51383	1265	51407	1265	51413	1268	51419	1271
51421	1272	51427	1264	51431	1264	51437	1270	51439	1269	51449	1268
51461	1270	51473	1269	51479	1265	51481	1268	51487	1266	51503	1274
51511	1265	51517	1269	51521	1270	51539	1271	51551	1268	51563	1273
51577	1273	51581	1272	51593	1269	51599	1273	51607	1270	51613	1269
51631	1272	51637	1271	51647	1273	51659	1270	51673	1271	51679	1274
51683	1271	51691	1270	51713	1271	51719	1272	51721	1279	51749	1271
51767	1274	51769	1268	51787	1275	51797	1280	51803	1267	51817	1270
51827	1274	51829	1272	51839	1271	51853	1273	51859	1274	51869	1275
51871	1277	51893	1279	51899	1278	51907	1275	51913	1273	51929	1276
51941	1277	51949	1275	51971	1278	51973	1276	51977	1274	51991	1278
52009	1274	52021	1278	52027	1274	52051	1281	52057	1277	52067	1280
52069	1278	52081	1279	52103	1278	52121	1277	52127	1279	52147	1276
52153	1278	52163	1282	52177	1280	52181	1282	52183	1281	52189	1277
52201	1279	52223	1278	52237	1282	52249	1278	52253	1277	52259	1278

<sup>¶</sup>Sizes smaller than in [5] are written in **bold font**; the new sizes are obtained in this work

**Table 4.** Continue 1

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
52267	1279	52289	1283	52291	1275	52301	1276	52313	1278	52321	1281
52361	1282	52363	1278	52369	1286	52379	1284	52387	1281	52391	1283
52433	1280	52453	1282	52457	1277	52489	1283	52501	1279	52511	1285
52517	1285	52529	1283	52541	1283	52543	1284	52553	1279	52561	1280
52567	1285	52571	1288	52579	1281	52583	1287	52609	1284	52627	1281
52631	1285	52639	1286	52667	1284	52673	1288	52691	1289	52697	1286
52709	1290	52711	1284	52721	1286	52727	1287	52733	1289	52747	1288
52757	1281	52769	1287	52783	1285	52807	1288	52813	1289	52817	1289
52837	1289	52859	1284	52861	1288	52879	1290	52883	1289	52889	1288
52901	1284	52903	1287	52919	1285	52937	1287	52951	1283	52957	1288
52963	1288	52967	1284	52973	1290	52981	1289	52999	1284	53003	1290
53017	1289	53047	1291	53051	1285	53069	1291	53077	1289	53087	1295
53089	1290	53093	1292	53101	1296	53113	1294	53117	1290	53129	1300
53147	1292	53149	1291	53161	1289	53171	1295	53173	1291	53189	1291
53197	1294	53201	1294	53231	1286	53233	1295	53239	1297	53267	1293
53269	1289	53279	1291	53281	1293	53299	1294	53309	1295	53323	1298
53327	1297	53353	1292	53359	1292	53377	1298	53381	1290	53401	1298
53407	1296	53411	1295	53419	1292	53437	1293	53441	1300	53453	1297
53479	1296	53503	1290	53507	1298	53527	1299	53549	1297	53551	1299
53569	1298	53591	1302	53593	1300	53597	1298	53609	1297	53611	1300
53617	1299	53623	1301	53629	1297	53633	1293	53639	1299	53653	1298
53657	1300	53681	1296	53693	1299	53699	1298	53717	1299	53719	1301
53731	1295	53759	1300	53773	1299	53777	1302	53783	1298	53791	1299
53813	1298	53819	1304	53831	1299	53849	1303	53857	1296	53861	1302
53881	1303	53887	1306	53891	1301	53897	1299	53899	1302	53917	1299
53923	1300	53927	1301	53939	1302	53951	1302	53959	1303	53987	1306
53993	1302	54001	1301	54011	1302	54013	1300	54037	1300	54049	1300
54059	1304	54083	1304	54091	1305	54101	1305	54121	1307	54133	1300
54139	1304	54151	1306	54163	1309	54167	1311	54181	1308	54193	1308
54217	1306	54251	1309	54269	1306	54277	1303	54287	1308	54293	1310
54311	1304	54319	1308	54323	1307	54331	1307	54347	1306	54361	1309
54367	1309	54371	1305	54377	1312	54401	1307	54403	1309	54409	1310
54413	1312	54419	1311	54421	1306	54437	1307	54443	1306	54449	1309
54469	1311	54493	1312	54497	1310	54499	1306	54503	1310	54517	1310
54521	1310	54539	1314	54541	1307	54547	1314	54559	1308	54563	1312

**Table 4.** Continue 2

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
54577	1315	54581	1306	54583	1313	54601	1311	54617	1313	54623	1312
54629	1310	54631	1311	54647	1314	54667	1308	54673	1310	54679	1310
54709	1314	54713	1313	54721	1310	54727	1313	54751	1317	54767	1312
54773	1312	54779	1315	54787	1312	54799	1311	54829	1315	54833	1313
54851	1314	54869	1317	54877	1315	54881	1316	54907	1319	54917	1317
54919	1313	54941	1317	54949	1312	54959	1311	54973	1316	54979	1318
54983	1312	55001	1324	55009	1320	55021	1316	55049	1320	55051	1319
55057	1318	55061	1320	55073	1313	55079	1318	55103	1317	55109	1319
55117	1322	55127	1322	55147	1318	55163	1319	55171	1316	55201	1320
55207	1319	55213	1319	55217	1324	55219	1321	55229	1320	55243	1321
55249	1319	55259	1318	55291	1322	55313	1322	55331	1317	55333	1328
55337	1321	55339	1323	55343	1326	55351	1316	55373	1326	55381	1320
55399	1319	55411	1329	55439	1325	55441	1324	55457	1322	55469	1324
55487	1320	55501	1326	55511	1323	55529	1327	55541	1322	55547	1326
55579	1328	55589	1323	55603	1324	55609	1326	55619	1321	55621	1322
55631	1319	55633	1324	55639	1325	55661	1324	55663	1327	55667	1326
55673	1330	55681	1326	55691	1328	55697	1331	55711	1323	55717	1331
55721	1325	55733	1327	55763	1328	55787	1327	55793	1328	55799	1331
55807	1327	55813	1336	55817	1331	55819	1333	55823	1330	55829	1326
55837	1333	55843	1328	55849	1326	55871	1330	55889	1330	55897	1327
55901	1330	55903	1333	55921	1331	55927	1330	55931	1330	55933	1326
55949	1330	55967	1331	55987	1336	55997	1337	56003	1328	56009	1328
56039	1325	56041	1333	56053	1326	56081	1334	56087	1331	56093	1326
56099	1332	56101	1330	56113	1328	56123	1332	56131	1333	56149	1330
56167	1329	56171	1331	56179	1333	56197	1329	56207	1326	56209	1337
56237	1333	56239	1333	56249	1333	56263	1330	56267	1334	56269	1336
56299	1333	56311	1335	56333	1332	56359	1333	56369	1335	56377	1339
56383	1337	56393	1337	56401	1336	56417	1331	56431	1333	56437	1330
56443	1340	56453	1340	56467	1338	56473	1333	56477	1338	56479	1335
56489	1335	56501	1337	56503	1337	56509	1340	56519	1338	56527	1335
56531	1335	56533	1339	56543	1341	56569	1334	56591	1336	56597	1336
56599	1338	56611	1335	56629	1333	56633	1343	56659	1339	56663	1335
56671	1341	56681	1343	56687	1342	56701	1340	56711	1346	56713	1341
56731	1339	56737	1336	56747	1340	56767	1339	56773	1342	56779	1339
56783	1342	56807	1338	56809	1342	56813	1342	56821	1347	56827	1341



**Table 4.** Continue 3

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
56843	1338	56857	1337	56873	1345	56891	1342	56893	1342	56897	1345
56909	1344	56911	1339	56921	1344	56923	1336	56929	1344	56941	1345
56951	1339	56957	1339	56963	1342	56983	1348	56989	1341	56993	1344
56999	1344	57037	1341	57041	1340	57047	1343	57059	1347	57073	1343
57077	1344	57089	1349	57097	1344	57107	1342	57119	1346	57131	1338
57139	1347	57143	1349	57149	1346	57163	1344	57173	1343	57179	1343
57191	1344	57193	1343	57203	1342	57221	1351	57223	1350	57241	1351
57251	1345	57259	1349	57269	1348	57271	1344	57283	1347	57287	1340
57301	1346	57329	1345	57331	1346	57347	1350	57349	1353	57367	1350
57373	1352	57383	1349	57389	1354	57397	1346	57413	1343	57427	1352
57457	1346	57467	1351	57487	1348	57493	1352	57503	1350	57527	1353
57529	1350	57557	1352	57559	1351	57571	1355	57587	1351	57593	1350
57601	1355	57637	1349	57641	1351	57649	1356	57653	1348	57667	1355
57679	1353	57689	1351	57697	1353	57709	1349	57713	1351	57719	1360
57727	1355	57731	1352	57737	1355	57751	1354	57773	1352	57781	1355
57787	1352	57791	1355	57793	1351	57803	1352	57809	1355	57829	1355
57839	1357	57847	1355	57853	1360	57859	1354	57881	1353	57899	1359
57901	1359	57917	1358	57923	1359	57943	1352	57947	1350	57973	1358
57977	1360	57991	1353	58013	1360	58027	1361	58031	1357	58043	1361
58049	1358	58057	1357	58061	1358	58067	1357	58073	1363	58099	1362
58109	1356	58111	1361	58129	1364	58147	1362	58151	1361	58153	1356
58169	1362	58171	1360	58189	1357	58193	1364	58199	1360	58207	1357
58211	1366	58217	1362	58229	1356	58231	1368	58237	1363	58243	1361
58271	1361	58309	1360	58313	1362	58321	1360	58337	1362	58363	1363
58367	1363	58369	1365	58379	1360	58391	1362	58393	1359	58403	1361
58411	1362	58417	1358	58427	1362	58439	1362	58441	1367	58451	1358
58453	1366	58477	1365	58481	1361	58511	1359	58537	1363	58543	1365
58549	1364	58567	1364	58573	1364	58579	1362	58601	1370	58603	1362
58613	1361	58631	1363	58657	1370	58661	1362	58679	1369	58687	1364
58693	1369	58699	1368	58711	1362	58727	1366	58733	1365	58741	1367
58757	1366	58763	1366	58771	1366	58787	1365	58789	1367	58831	1368
58889	1366	58897	1369	58901	1369	58907	1364	58909	1369	58913	1372
58921	1369	58937	1368	58943	1373	58963	1363	58967	1369	58979	1366
58991	1373	58997	1365	59009	1374	59011	1372	59021	1367	59023	1368
59029	1372	59051	1368	59053	1370	59063	1371	59069	1368	59077	1378

**Table 4.** Continue 4

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
59083	1364	59093	1374	59107	1370	59113	1371	59119	1371	59123	1370
59141	1366	59149	1369	59159	1380	59167	1373	59183	1372	59197	1368
59207	1372	59209	1369	59219	1369	59221	1376	59233	1370	59239	1369
59243	1374	59263	1376	59273	1374	59281	1376	59333	1376	59341	1373
59351	1377	59357	1378	59359	1370	59369	1374	59377	1374	59387	1380
59393	1375	59399	1376	59407	1371	59417	1376	59419	1378	59441	1380
59443	1376	59447	1376	59453	1378	59467	1373	59471	1381	59473	1376
59497	1375	59509	1380	59513	1378	59539	1378	59557	1377	59561	1375
59567	1377	59581	1375	59611	1376	59617	1382	59621	1380	59627	1378
59629	1372	59651	1385	59659	1374	59663	1371	59669	1385	59671	1375
59693	1376	59699	1380	59707	1377	59723	1381	59729	1380	59743	1381
59747	1375	59753	1379	59771	1377	59779	1376	59791	1377	59797	1384
59809	1384	59833	1381	59863	1381	59879	1383	59887	1385	59921	1380
59929	1383	59951	1380	59957	1384	59971	1381	59981	1381	59999	1381
60013	1385	60017	1382	60029	1386	60037	1386	60041	1381	60077	1385
60083	1384	60089	1385	60091	1380	60101	1388	60103	1382	60107	1383
60127	1389	60133	1387	60139	1384	60149	1384	60161	1391	60167	1388
60169	1383	60209	1392	60217	1387	60223	1386	60251	1387	60257	1390
60259	1385	60271	1391	60289	1385	60293	1394	60317	1387	60331	1387
60337	1392	60343	1387	60353	1387	60373	1387	60383	1389	60397	1392
60413	1394	60427	1388	60443	1383	60449	1389	60457	1382	60493	1389
60497	1385	60509	1389	60521	1387	60527	1393	60539	1394	60589	1393
60601	1396	60607	1391	60611	1391	60617	1392	60623	1391	60631	1394
60637	1393	60647	1397	60649	1390	60659	1393	60661	1388	60679	1392
60689	1393	60703	1390	60719	1393	60727	1394	60733	1391	60737	1395
60757	1392	60761	1395	60763	1388	60773	1389	60779	1398	60793	1397
60811	1396	60821	1394	60859	1394	60869	1396	60887	1394	60889	1398
60899	1392	60901	1398	60913	1398	60917	1393	60919	1389	60923	1393
60937	1396	60943	1396	60953	1397	60961	1394	61001	1395	61007	1399
61027	1393	61031	1397	61043	1396	61051	1395	<b>61057</b>	<b>1405</b>	61091	1400
61099	1399	61121	1399	61129	1396	61141	1397	61151	1399	61153	1395
61169	1398	61211	1398	61223	1393	61231	1398	61253	1396	61261	1398
61283	1403	61291	1402	61297	1397	61331	1408	61333	1398	61339	1401
61343	1400	61357	1404	61363	1402	61379	1400	61381	1402	61403	1399
61409	1401	61417	1399	61441	1395	61463	1399	61469	1395	61471	1404

**Table 4.** Continue 5

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
61483	1404	61487	1400	61493	1404	61507	1407	61511	1406	<b>61519</b>	<b>1411</b>
61543	1400	61547	1398	61553	1404	61559	1403	61561	1403	61583	1408
61603	1399	61609	1404	61613	1402	61627	1402	61631	1407	61637	1406
61643	1408	61651	1401	61657	1408	61667	1402	61673	1401	61681	1407
61687	1404	61703	1402	61717	1404	61723	1406	61729	1407	61751	1404
61757	1406	61781	1403	61813	1408	61819	1412	61837	1406	61843	1406
61861	1404	61871	1408	61879	1408	61909	1407	61927	1410	61933	1408
61949	1415	61961	1409	61967	1410	61979	1408	61981	1407	61987	1407
61991	1412	62003	1404	62011	1412	62017	1408	62039	1407	62047	1408
62053	1412	62057	1406	62071	1407	62081	1407	62099	1411	62119	1409
62129	1412	62131	1412	62137	1406	62141	1413	62143	1408	62171	1420
62189	1409	62191	1416	62201	1410	62207	1414	62213	1414	62219	1411
62233	1413	62273	1413	62297	1412	62299	1412	62303	1414	62311	1411
62323	1415	62327	1417	62347	1411	62351	1412	62383	1416	62401	1416
62417	1414	62423	1412	62459	1420	62467	1419	62473	1419	62477	1413
62483	1412	62497	1416	62501	1414	62507	1412	62533	1413	62539	1422
62549	1413	62563	1417	62581	1418	62591	1422	62597	1414	62603	1418
62617	1416	62627	1417	62633	1417	62639	1415	62653	1414	62659	1413
62683	1418	62687	1421	62701	1421	62723	1415	62731	1415	62743	1414
62753	1418	62761	1423	62773	1418	62791	1423	62801	1418	62819	1418
62827	1425	62851	1417	62861	1418	62869	1422	62873	1420	62897	1418
62903	1421	62921	1417	62927	1420	62929	1417	62939	1423	62969	1422
62971	1419	62981	1424	62983	1421	62987	1429	62989	1423	63029	1424
63031	1423	63059	1424	63067	1424	63073	1423	63079	1420	63097	1423
63103	1422	63113	1420	63127	1422	63131	1424	63149	1424	63179	1421
63197	1423	63199	1427	63211	1429	63241	1422	63247	1424	63277	1425
63281	1422	63299	1425	63311	1421	63313	1429	63317	1429	63331	1425
63337	1432	63347	1432	63353	1424	63361	1423	63367	1423	63377	1422
63389	1423	63391	1427	63397	1428	63409	1423	63419	1428	63421	1428
63439	1423	63443	1427	63463	1426	63467	1427	63473	1429	63487	1426
63493	1427	63499	1423	63521	1428	63527	1429	63533	1435	63541	1422
63559	1431	63577	1431	63587	1429	63589	1426	63599	1430	63601	1429
63607	1428	63611	1429	63617	1425	63629	1432	63647	1431	63649	1428
63659	1430	63667	1433	63671	1429	63689	1433	63691	1427	63697	1433
63703	1431	63709	1427	63719	1431	63727	1436	63737	1438	63743	1429

**Table 4.** Continue 6

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
63761	1437	63773	1432	63781	1434	63793	1431	63799	1434	63803	1431
<b>63809</b>	<b>1434</b>	63823	1432	63839	1432	63841	1430	63853	1432	63857	1435
63863	1431	63901	1434	63907	1428	63913	1432	63929	1434	63949	1434
63977	1433	63997	1435	64007	1437	64013	1432	64019	1433	64033	1428
64037	1434	64063	1436	64067	1439	64081	1440	64091	1430	64109	1431
64123	1437	64151	1439	64153	1441	64157	1442	64171	1440	64187	1435
64189	1431	64217	1436	64223	1433	64231	1436	64237	1436	64271	1438
64279	1437	64283	1442	64301	1442	64303	1436	64319	1438	64327	1445
64333	1443	64373	1429	64381	1440	64399	1438	64403	1441	64433	1441
64439	1438	64451	1437	64453	1437	64483	1444	64489	1449	64499	1437
64513	1441	64553	1444	64567	1442	64577	1445	64579	1442	64591	1442
64601	1443	64609	1448	64613	1435	64621	1440	64627	1435	64633	1442
64661	1447	64663	1441	64667	1443	64679	1446	64693	1444	64709	1440
64717	1442	64747	1450	64763	1444	64781	1443	64783	1440	64793	1445
64811	1446	64817	1446	64849	1445	64853	1441	64871	1446	64877	1443
64879	1444	64891	1444	64901	1444	64919	1446	64921	1447	64927	1448
64937	1441	64951	1450	64969	1448	64997	1448	65003	1446	65011	1449
65027	1438	65029	1448	65033	1449	65053	1454	65063	1447	65071	1447
65089	1444	65099	1446	65101	1446	65111	1446	65119	1451	65123	1455
65129	1454	65141	1450	65147	1457	65167	1452	65171	1452	65173	1452
65179	1455	65183	1449	65203	1450	65213	1453	65239	1454	65257	1452
65267	1449	65269	1453	65287	1458	65293	1459	65309	1451	65323	1453
65327	1448	65353	1450	65357	1456	65371	1454	65381	1457	65393	1448
65407	1456	65413	1454	65419	1458	65423	1454	65437	1455	65447	1451
65449	1453	65479	1461	65497	1460	65519	1452	65521	1455	65537	1457
65539	1457	65543	1451	65551	1459	65557	1454	65563	1457	65579	1454
65581	1459	65587	1455	65599	1461	65609	1455	65617	1455	65629	1454
65633	1463	65647	1458	65651	1456	65657	1464	65677	1459	65687	1454
65699	1456	65701	1455	65707	1458	65713	1454	65717	1464	65719	1455
65729	1457	65731	1459	65761	1461	65777	1464	65789	1464	65809	1457
65827	1461	65831	1461	65837	1461	65839	1466	65843	1455	65851	1463
65867	1460	65881	1457	65899	1462	<b>65921</b>	<b>1467</b>	65927	1466	65929	1461
65951	1462	65957	1460	65963	1461	65981	1462	65983	1464	65993	1461
66029	1466	66037	1465	66041	1462	66047	1463	66067	1457	66071	1463
66083	1461	66089	1462	66103	1464	66107	1465	66109	1465	66137	1468

Table 4. Continue 7

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
66161	1465	66169	1464	66173	1464	66179	1466	66191	1468	66221	1462
66239	1469	66271	1466	66293	1471	66301	1469	66337	1465	66343	1461
66347	1471	66359	1464	66361	1462	66373	1462	66377	1467	66383	1463
66403	1464	66413	1466	66431	1470	66449	1464	66457	1472	66463	1469
66467	1471	<b>66491</b>	<b>1474</b>	66499	1465	66509	1467	66523	1472	66529	1468
<b>66533</b>	<b>1474</b>	66541	1466	66553	1469	66569	1474	66571	1473	66587	1466
66593	1471	66601	1471	66617	1471	66629	1469	66643	1472	66653	1472
66683	1470	66697	1476	66701	1471	66713	1476	66721	1469	66733	1471
<b>66739</b>	<b>1477</b>	66749	1468	66751	1472	66763	1466	66791	1467	66797	1474
66809	1477	66821	1471	66841	1474	66851	1473	66853	1469	66863	1469
66877	1470	66883	1474	66889	1471	66919	1476	66923	1469	66931	1468
66943	1476	66947	1478	66949	1473	66959	1479	66973	1478	66977	1477
67003	1472	67021	1474	67033	1472	67043	1475	67049	1478	67057	1475
67061	1471	67073	1474	67079	1479	67103	1477	67121	1474	67129	1477
67139	1480	67141	1477	67153	1475	67157	1475	67169	1478	67181	1481
67187	1479	<b>67189</b>	<b>1479</b>	67211	1474	67213	1472	67217	1474	67219	1480
67231	1481	67247	1470	67261	1479	67271	1479	67273	1477	67289	1474
67307	1483	67339	1482	67343	1481	67349	1475	67369	1482	67391	1482
67399	1475	67409	1477	67411	1481	67421	1479	67427	1481	67429	1480
67433	1479	67447	1479	67453	1471	67477	1479	67481	1476	67489	1483
67493	1482	67499	1476	67511	1480	67523	1482	67531	1480	67537	1477
67547	1483	67559	1476	67567	1483	67577	1484	67579	1480	67589	1476
67601	1480	67607	1485	67619	1482	67631	1485	67651	1480	67679	1486
67699	1483	67709	1479	67723	1487	67733	1487	67741	1482	67751	1489
67757	1485	67759	1478	67763	1483	67777	1484	67783	1482	67789	1488
67801	1483	67807	1485	67819	1482	67829	1481	67843	1481	67853	1489
67867	1486	67883	1486	<b>67891</b>	<b>1486</b>	67901	1488	67927	1487	67931	1490
67933	1487	67939	1486	67943	1489	67957	1476	67961	1490	67967	1488
67979	1481	67987	1492	67993	1481	68023	1489	68041	1487	68053	1491
68059	1486	68071	1488	68087	1490	<b>68099</b>	<b>1491</b>	68111	1486	68113	1489
68141	1490	68147	1487	68161	1490	68171	1492	68207	1486	68209	1488
68213	1487	68219	1486	68227	1487	68239	1489	68261	1489	68279	1493
68281	1492	68311	1492	68329	1488	68351	1490	68371	1494	68389	1497
68399	1489	68437	1490	68443	1485	68447	1495	68449	1492	68473	1489
68477	1493	68483	1488	68489	1499	68491	1487	68501	1490	68507	1496

**Table 4.** Continue 8

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
68521	1493	68531	1493	68539	1490	68543	1493	68567	1495	68581	1492
68597	1493	68611	1498	68633	1495	68639	1495	68659	1492	68669	1490
68683	1496	68687	1494	68699	1492	68711	1495	68713	1501	68729	1497
68737	1493	68743	1493	68749	1496	68767	1493	68771	1492	68777	1502
68791	1497	68813	1495	68819	1493	68821	1499	68863	1496	68879	1499
68881	1502	68891	1499	68897	1493	68899	1500	68903	1501	68909	1499
68917	1493	68927	1499	68947	1493	68963	1500	68993	1499	69001	1496
69011	1498	69019	1496	69029	1503	69031	1502	69061	1501	69067	1502
69073	1499	69109	1495	69119	1502	69127	1503	69143	1496	69149	1503
69151	1501	<b>69163</b>	<b>1501</b>	69191	1497	69193	1503	69197	1501	69203	1500
69221	1503	69233	1501	69239	1507	69247	1499	69257	1504	69259	1505
69263	1501	69313	1501	69317	1506	69337	1500	69341	1498	69371	1505
69379	1501	69383	1502	69389	1505	69401	1507	69403	1505	69427	1506
69431	1502	69439	1502	69457	1505	69463	1503	69467	1506	69473	1503
69481	1507	69491	1506	69493	1504	69497	1504	69499	1504	69539	1508
69557	1504	69593	1505	69623	1508	69653	1509	69661	1509	69677	1504
69691	1511	69697	1513	69709	1504	69737	1512	69739	1508	69761	1508
69763	1509	69767	1510	69779	1509	69809	1508	69821	1507	69827	1511
69829	1506	69833	1506	69847	1510	69857	1505	69859	1506	69877	1512
69899	1506	69911	1512	69929	1513	69931	1510	69941	1515	69959	1508
69991	1511	69997	1507	70001	1508	70003	1509	70009	1511	70019	1504
70039	1510	70051	1511	70061	1513	70067	1512	70079	1512	70099	1513
70111	1508	70117	1511	70121	1506	70123	1511	70139	1509	70141	1515
70157	1513	70163	1513	70177	1515	70181	1508	70183	1511	70199	1515
70201	1516	70207	1515	70223	1513	70229	1514	70237	1511	70241	1510
70249	1512	<b>70271</b>	<b>1518</b>	70289	1514	70297	1516	70309	1516	70313	1519
<b>70321</b>	<b>1517</b>	70327	1515	70351	1515	70373	1515	70379	1512	70381	1511
70393	1515	70423	1515	70429	1513	70439	1516	70451	1514	70457	1518
70459	1520	70481	1521	70487	1518	70489	1523	70501	1518	70507	1515
70529	1511	70537	1518	70549	1515	70571	1515	70573	1519	70583	1524
<b>70589</b>	<b>1523</b>	70607	1520	70619	1518	70621	1516	70627	1522	70639	1516
70657	1521	70663	1519	70667	1519	70687	1522	70709	1523	70717	1514
70729	1523	70753	1520	70769	1521	70783	1520	70793	1520	<b>70823</b>	<b>1527</b>
70841	1520	70843	1522	70849	1527	70853	1523	70867	1524	70877	1527
70879	1522	70891	1526	70901	1520	70913	1525	70919	1522	70921	1522

**Table 4.** Continue 9

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
70937	1514	70949	1522	70951	1525	70957	1524	70969	1525	70979	1525
70981	1516	70991	1522	70997	1521	70999	1527	71011	1528	71023	1526
71039	1526	71059	1529	71069	1521	71081	1523	71089	1526	71119	1524
71129	1527	71143	1527	71147	1531	71153	1525	71161	1531	71167	1526
71171	1518	71191	1525	71209	1526	71233	1528	71237	1530	71249	1524
71257	1529	71261	1525	71263	1523	71287	1528	71293	1523	71317	1526
71327	1523	71329	1527	71333	1523	71339	1531	71341	1528	71347	1524
71353	1524	71359	1528	71363	1522	71387	1527	71389	1527	71399	1531
71411	1527	71413	1531	71419	1524	71429	1532	71437	1524	71443	1535
71453	1529	71471	1526	71473	1526	71479	1529	71483	1533	71503	1525
71527	1527	71537	1527	71549	1528	71551	1531	71563	1525	71569	1528
71593	1528	71597	1535	71633	1523	71647	1532	71663	1531	71671	1526
71693	1535	71699	1532	71707	1535	71711	1531	71713	1527	71719	1530
71741	1535	71761	1531	71777	1533	71789	1531	71807	1528	71809	1530
71821	1531	71837	1533	71843	1532	71849	1534	71861	1535	71867	1535
71879	1532	71881	1531	71887	1529	71899	1532	71909	1531	71917	1532
71933	1532	71941	1540	71947	1532	71963	1533	71971	1531	71983	1532
71987	1534	71993	1530	71999	1529	72019	1537	72031	1538	72043	1534
72047	1534	72053	1530	72073	1534	72077	1534	72089	1539	72091	1529
72101	1530	72103	1537	72109	1533	72139	1540	72161	1534	72167	1533
72169	1539	<b>72173</b>	<b>1540</b>	72211	1534	72221	1533	72223	1535	72227	1533
72229	1536	72251	1536	72253	1534	72269	1538	72271	1544	72277	1537
72287	1542	72307	1533	72313	1540	72337	1541	72341	1535	72353	1542
72367	1539	72379	1538	72383	1538	72421	1540	72431	1536	72461	1542
72467	1537	72469	1544	72481	1540	72493	1537	72497	1536	72503	1541
72533	1539	72547	1541	72551	1541	72559	1541	72577	1537	72613	1541
72617	1540	72623	1542	72643	1540	72647	1538	72649	1538	72661	1541
72671	1538	72673	1543	72679	1546	72689	1542	72701	1543	72707	1546
72719	1541	72727	1541	72733	1543	72739	1547	72763	1545	72767	1549
72797	1547	72817	1544	72823	1546	72859	1547	72869	1548	72871	1537
72883	1544	72889	1549	72893	1547	72901	1540	72907	1546	72911	1548
72923	1552	72931	1543	72937	1548	72949	1548	72953	1545	72959	1547
72973	1551	72977	1546	72997	1547	73009	1547	73013	1547	73019	1547
73037	1546	73039	1546	73043	1544	73061	1552	73063	1553	73079	1550
73091	1550	73121	1553	73127	1539	73133	1549	73141	1547	73181	1549

**Table 4.** Continue 10

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
73189	1554	73237	1549	73243	1549	73259	1549	73277	1550	73291	1555
73303	1550	73309	1549	73327	1549	73331	1546	73351	1549	73361	1551
73363	1550	73369	1547	73379	1550	73387	1549	73417	1551	73421	1548
73433	1554	73453	1554	73459	1559	73471	1550	73477	1546	73483	1547
73517	1549	73523	1554	73529	1549	73547	1551	73553	1553	73561	1555
73571	1554	73583	1553	73589	1559	73597	1556	73607	1550	73609	1550
73613	1555	73637	1556	73643	1550	73651	1555	73673	1551	73679	1555
73681	1554	73693	1555	73699	1557	73709	1554	73721	1555	73727	1560
73751	1554	73757	1561	73771	1554	73783	1552	73819	1553	73823	1556
73847	1562	73849	1558	73859	1557	73867	1558	73877	1561	73883	1551
73897	1559	73907	1555	73939	1554	73943	1553	73951	1551	73961	1559
73973	1562	73999	1560	74017	1554	74021	1559	74027	1558	74047	1554
74051	1559	74071	1560	74077	1558	74093	1562	74099	1554	74101	1561
74131	1557	74143	1563	74149	1559	74159	1559	74161	1554	74167	1559
74177	1566	74189	1561	<b>74197</b>	<b>1564</b>	74201	1558	74203	1558	74209	1560
74219	1566	74231	1559	74257	1563	74279	1559	74287	1559	74293	1560
74297	1562	74311	1560	74317	1560	74323	1561	74353	1564	74357	1558
74363	1566	74377	1560	74381	1570	74383	1562	74411	1562	74413	1570
74419	1559	74441	1562	74449	1559	74453	1563	74471	1562	74489	1563
74507	1563	74509	1569	74521	1566	74527	1565	74531	1564	74551	1567
74561	1565	74567	1568	74573	1561	74587	1570	74597	1567	74609	1564
74611	1562	74623	1567	74653	1571	74687	1568	<b>74699</b>	<b>1571</b>	74707	1567
74713	1567	74717	1563	74719	1563	74729	1567	74731	1573	74747	1568
74759	1568	74761	1568	74771	1568	74779	1563	74797	1565	74821	1563
74827	1567	74831	1560	74843	1569	74857	1567	74861	1566	74869	1566
74873	1571	74887	1574	74891	1569	74897	1566	74903	1570	74923	1566
74929	1566	74933	1570	74941	1569	74959	1569	75011	1572	75013	1576
75017	1572	75029	1574	75037	1569	<b>75041</b>	<b>1570</b>	75079	1567	75083	1569
75109	1566	75133	1576	75149	1573	75161	1568	75167	1568	75169	1574
75181	1565	75193	1572	75209	1572	75211	1572	75217	1572	75223	1574
75227	1574	75239	1566	75253	1573	75269	1571	75277	1576	75289	1576
75307	1569	75323	1570	75329	1575	75337	1571	75347	1569	75353	1575
75367	1575	75377	1581	75389	1580	75391	1574	75401	1579	75403	1575
75407	1576	75431	1579	75437	1570	75479	1571	75503	1577	75511	1581
75521	1581	75527	1577	75533	1575	75539	1577	75541	1573	75553	1575



**Table 4.** Continue 11

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
75557	1576	75571	1578	75577	1576	75583	1575	75611	1572	75617	1580
75619	1581	75629	1575	75641	1573	75653	1574	75659	1575	75679	1579
75683	1579	75689	1578	75703	1583	75707	1576	75709	1580	75721	1580
75731	1581	75743	1573	75767	1573	75773	1577	75781	1577	<b>75787</b>	<b>1584</b>
75793	1576	75797	1579	75821	1574	75833	1581	75853	1581	75869	1584
75883	1583	75913	1577	75931	1578	75937	1573	75941	1577	75967	1579
75979	1580	75983	1579	75989	1584	75991	1579	75997	1583	76001	1581
76003	1583	76031	1583	76039	1581	76079	1582	76081	1582	76091	1584
76099	1579	76103	1584	76123	1583	76129	1588	76147	1587	76157	1580
76159	1585	76163	1581	76207	1584	76213	1580	76231	1588	76243	1587
76249	1584	76253	1586	76259	1587	76261	1583	76283	1586	76289	1583
76303	1577	76333	1584	76343	1590	76367	1585	76369	1586	76379	1582
76387	1581	76403	1585	76421	1585	76423	1580	76441	1582	76463	1588
76471	1592	76481	1588	76487	1584	76493	1585	76507	1585	76511	1589
76519	1584	76537	1589	76541	1591	76543	1590	76561	1590	76579	1590
76597	1589	76603	1593	76607	1585	76631	1585	76649	1590	76651	1588
76667	1589	76673	1589	76679	1591	76697	1587	76717	1583	76733	1581
76753	1591	76757	1591	76771	1595	76777	1588	76781	1595	76801	1586
76819	1591	76829	1592	76831	1583	76837	1587	76847	1589	76871	1599
76873	1588	76883	1593	76907	1587	76913	1591	76919	1589	76943	1594
76949	1597	76961	1594	76963	1595	76991	1587	77003	1586	77017	1594
77023	1596	77029	1588	77041	1596	77047	1591	77069	1594	77081	1597
77093	1592	77101	1591	77137	1590	77141	1595	77153	1594	77167	1601
77171	1595	77191	1594	77201	1598	77213	1596	77237	1599	77239	1594
77243	1594	77249	1593	77261	1591	77263	1596	77267	1602	77269	1592
77279	1594	77291	1594	77317	1604	77323	1592	77339	1600	77347	1593
77351	1599	77359	1599	77369	1596	77377	1602	77383	1594	77417	1599
77419	1597	77431	1602	77447	1598	77471	1602	77477	1603	77479	1599
77489	1598	<b>77491</b>	<b>1601</b>	77509	1602	77513	1598	<b>77521</b>	<b>1606</b>	77527	1602
77543	1600	77549	1595	77551	1600	77557	1597	<b>77563</b>	<b>1604</b>	<b>77569</b>	<b>1605</b>
77573	1603	77587	1597	77591	1605	77611	1589	77617	1595	77621	1602
<b>77641</b>	<b>1605</b>	77647	1603	77659	1603	77681	1598	77687	1601	77689	1605
77699	1597	77711	1601	77713	1602	77719	1601	77723	1599	77731	1600
77743	1603	77747	1604	77761	1600	77773	1604	77783	1604	77797	1603
77801	1598	77813	1605	77839	1602	77849	1595	77863	1605	77867	1607

**Table 4.** Continue 12

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
77893	1608	77899	1604	<b>77929</b>	<b>1609</b>	77933	1608	77951	1603	77969	1610
77977	1606	77983	1605	77999	1604	78007	1602	78017	1603	78031	1604
78041	1604	78049	1602	78059	1608	78079	1602	78101	1603	78121	1606
78137	1606	78139	1609	78157	1600	78163	1607	78167	1605	78173	1606
78179	1605	78191	1606	78193	1603	78203	1608	78229	1610	78233	1606
78241	1609	78259	1612	78277	1609	<b>78283</b>	<b>1612</b>	78301	1610	78307	1608
78311	1606	78317	1609	78341	1611	78347	1611	78367	1604	78401	1611
78427	1614	78437	1606	78439	1609	78467	1614	78479	1612	78487	1607
78497	1612	78509	1610	78511	1612	78517	1611	78539	1613	78541	1615
78553	1608	78569	1612	78571	1611	78577	1607	78583	1608	78593	1610
78607	1614	78623	1611	78643	1616	78649	1615	78653	1604	78691	1613
78697	1613	78707	1610	78713	1618	78721	1608	78737	1615	78779	1609
78781	1615	78787	1620	78791	1612	78797	1614	78803	1610	78809	1614
78823	1613	78839	1612	78853	1620	78857	1615	78877	1617	78887	1615
78889	1616	78893	1615	78901	1614	78919	1615	78929	1618	78941	1611
78977	1623	78979	1615	78989	1614	79031	1615	79039	1612	79043	1623
79063	1620	79087	1619	79103	1618	79111	1619	79133	1621	79139	1621
79147	1614	79151	1618	79153	1618	79159	1620	79181	1617	79187	1621
79193	1622	79201	1618	79229	1619	79231	1620	79241	1623	79259	1625
79273	1624	79279	1619	79283	1617	79301	1623	79309	1619	79319	1619
79333	1617	79337	1616	79349	1621	79357	1622	79367	1620	79379	1619
79393	1621	79397	1618	79399	1622	79411	1621	79423	1617	79427	1620
<b>79433</b>	<b>1625</b>	79451	1621	79481	1615	79493	1621	79531	1621	79537	1620
79549	1624	79559	1620	79561	1622	79579	1625	79589	1621	79601	1627
79609	1622	79613	1621	79621	1623	79627	1618	79631	1629	79633	1624
79657	1623	79669	1624	79687	1624	79691	1622	79693	1627	79697	1623
79699	1625	79757	1622	79769	1622	79777	1626	79801	1626	79811	1623
79813	1628	79817	1615	79823	1627	79829	1625	<b>79841</b>	<b>1633</b>	79843	1621
79847	1627	79861	1627	79867	1627	79873	1632	79889	1626	79901	1625
79903	1619	79907	1621	79939	1630	79943	1631	79967	1628	79973	1632
79979	1624	79987	1624	79997	1625	79999	1631	80021	1628	80039	1626
80051	1628	80071	1629	80077	1628	80107	1628	80111	1634	80141	1626
80147	1630	80149	1633	80153	1626	80167	1633	80173	1630	80177	1635
80191	1629	80207	1633	80209	1633	80221	1625	80231	1630	80233	1627
80239	1631	80251	1637	80263	1629	80273	1634	80279	1633	80287	1627

**Table 4.** Continue 13

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
80309	1631	80317	1626	80329	1632	80341	1629	80347	1630	80363	1624
80369	1629	80387	1633	80407	1634	80429	1635	80447	1635	80449	1627
<b>80471</b>	<b>1638</b>	80473	1633	80489	1628	80491	1628	80513	1633	80527	1634
80537	1632	80557	1630	80567	1634	80599	1630	80603	1636	80611	1630
80621	1631	80627	1634	80629	1632	80651	1632	80657	1636	80669	1633
80671	1637	80677	1635	80681	1640	80683	1631	80687	1636	80701	1637
80713	1637	80737	1638	80747	1641	80749	1634	80761	1632	80777	1637
80779	1633	80783	1633	80789	1635	80803	1632	80809	1634	80819	1636
80831	1634	80833	1636	80849	1636	80863	1637	80897	1645	80909	1634
80911	1637	80917	1638	80923	1641	80929	1639	80933	1635	80953	1636
80963	1646	80989	1638	81001	1642	81013	1640	81017	1640	81019	1637
81023	1639	81031	1634	81041	1641	81043	1637	81047	1641	81049	1647
81071	1638	81077	1635	81083	1643	81097	1631	81101	1635	81119	1643
81131	1639	81157	1639	81163	1636	81173	1638	81181	1641	<b>81197</b>	<b>1644</b>
81199	1645	81203	1640	81223	1635	81233	1636	81239	1641	81281	1640
81283	1641	81293	1635	81299	1638	81307	1642	81331	1640	81343	1646
81349	1640	81353	1640	81359	1643	81371	1641	81373	1639	81401	1647
81409	1647	81421	1643	81439	1647	81457	1643	81463	1640	81509	1647
81517	1643	81527	1646	81533	1647	81547	1640	81551	1646	81553	1643
81559	1642	81563	1645	81569	1640	81611	1643	81619	1650	81629	1653
81637	1645	81647	1646	81649	1640	81667	1643	81671	1649	81677	1644
81689	1648	81701	1643	81703	1649	81707	1644	81727	1649	81737	1640
81749	1644	81761	1649	81769	1654	81773	1643	81799	1645	81817	1646
81839	1648	81847	1650	81853	1653	81869	1644	81883	1644	81899	1648
81901	1647	81919	1643	81929	1653	81931	1650	81937	1650	81943	1648
81953	1645	81967	1654	81971	1648	81973	1649	82003	1650	82007	1646
82009	1652	82013	1646	82021	1645	82031	1652	82037	1655	82039	1649
82051	1655	82067	1653	82073	1651	82129	1655	82139	1647	82141	1652
82153	1654	82163	1649	82171	1654	82183	1653	82189	1655	82193	1653
82207	1651	82217	1651	82219	1655	82223	1650	82231	1655	82237	1647
82241	1655	82261	1655	82267	1656	82279	1653	82301	1658	82307	1650
82339	1651	82349	1649	82351	1652	82361	1657	82373	1652	82387	1658
82393	1651	82421	1652	82457	1652	<b>82463</b>	<b>1660</b>	82469	1656	82471	1661
82483	1652	82487	1655	82493	1656	82499	1662	82507	1652	82529	1654
82531	1658	82549	1657	82559	1658	82561	1654	82567	1653	82571	1657

**Table 4.** Continue 14

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
82591	1657	82601	1649	82609	1663	82613	1657	82619	1655	82633	1652
82651	1655	82657	1660	82699	1659	82721	1661	82723	1661	82727	1661
82729	1649	82757	1660	82759	1659	82763	1651	82781	1656	82787	1659
82793	1655	82799	1661	82811	1655	82813	1655	82837	1666	82847	1664
82883	1659	82889	1658	82891	1657	82903	1654	82913	1663	82939	1665
82963	1659	82981	1657	82997	1657	83003	1664	83009	1656	83023	1664
83047	1659	83059	1663	83063	1665	83071	1661	83077	1660	83089	1665
83093	1668	83101	1669	83117	1660	83137	1660	83177	1666	83203	1669
83207	1669	83219	1661	<b>83221</b>	<b>1671</b>	83227	1661	83231	1660	83233	1666
83243	1659	83257	1661	83267	1664	83269	1667	83273	1662	83299	1658
83311	1668	83339	1664	83341	1664	83357	1663	83383	1662	83389	1662
83399	1670	83401	1664	83407	1664	83417	1667	83423	1670	83431	1669
83437	1666	83443	1662	83449	1669	83459	1669	83471	1666	83477	1669
83497	1668	83537	1675	83557	1660	83561	1670	83563	1671	83579	1661
83591	1666	83597	1668	83609	1671	83617	1671	83621	1674	83639	1674
83641	1662	83653	1663	83663	1664	83689	1667	83701	1668	83717	1670
83719	1669	83737	1666	83761	1676	83773	1666	83777	1671	83791	1668
83813	1674	83833	1678	83843	1672	83857	1665	83869	1673	83873	1665
83891	1672	83903	1675	83911	1666	83921	1669	83933	1670	83939	1672
83969	1673	83983	1678	83987	1675	84011	1678	84017	1673	84047	1679
84053	1671	84059	1673	84061	1676	84067	1669	84089	1672	84121	1675
84127	1671	84131	1674	84137	1678	84143	1676	84163	1671	84179	1676
84181	1675	84191	1676	84199	1678	84211	1670	84221	1676	84223	1677
84229	1671	84239	1680	84247	1676	84263	1679	84299	1675	84307	1671
84313	1671	84317	1679	84319	1680	84347	1672	84349	1673	84377	1676
84389	1679	84391	1674	84401	1679	84407	1673	84421	1677	84431	1675
84437	1671	84443	1678	84449	1675	84457	1677	84463	1679	84467	1671
84481	1680	84499	1679	84503	1674	84509	1679	84521	1685	84523	1679
84533	1671	84551	1677	84559	1676	84589	1677	84629	1677	84631	1677
84649	1682	84653	1679	84659	1672	84673	1678	84691	1682	84697	1678
84701	1683	84713	1678	84719	1680	84731	1682	84737	1678	84751	1676
84761	1684	84787	1682	84793	1678	84809	1683	84811	1679	84827	1681
84857	1677	84859	1679	84869	1687	84871	1681	84913	1681	84919	1685
84947	1685	84961	1688	84967	1680	84977	1686	84979	1689	84991	1684
85009	1687	85021	1684	85027	1680	85037	1680	85049	1681	85061	1691

**Table 4.** Continue 15

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
85081	1682	85087	1685	85091	1687	85093	1684	85103	1686	85109	1685
85121	1682	85133	1689	85147	1685	85159	1681	85193	1678	85199	1683
85201	1680	85213	1690	85223	1685	85229	1688	85237	1694	85243	1677
85247	1686	85259	1691	85297	1682	85303	1692	85313	1685	85331	1683
85333	1686	85361	1688	85363	1689	85369	1684	85381	1686	85411	1689
85427	1685	85429	1686	85439	1690	85447	1691	85451	1690	85453	1691
85469	1683	85487	1684	85513	1686	85517	1685	85523	1691	85531	1687
85549	1689	85571	1682	85577	1686	85597	1693	85601	1696	85607	1689
85619	1688	85621	1688	85627	1693	85639	1685	85643	1684	85661	1689
85667	1691	85669	1689	85691	1694	85703	1696	85711	1690	85717	1692
85733	1693	85751	1696	<b>85781</b>	<b>1695</b>	85793	1693	85817	1698	85819	1693
85829	1691	85831	1698	85837	1687	85843	1694	85847	1696	85853	1685
85889	1696	85903	1697	85909	1694	85931	1699	85933	1691	85991	1693
85999	1698	86011	1702	86017	1696	86027	1690	86029	1696	86069	1691
86077	1693	86083	1695	86111	1698	86113	1690	<b>86117</b>	<b>1702</b>	86131	1693
86137	1695	86143	1694	86161	1697	86171	1697	86179	1696	86183	1695
86197	1700	86201	1691	86209	1695	86239	1701	86243	1694	86249	1697
86257	1702	86263	1695	86269	1702	86287	1691	86291	1696	86293	1701
86297	1699	86311	1698	86323	1699	86341	1701	86351	1695	86353	1692
86357	1700	86369	1698	86371	1701	86381	1693	86389	1695	86399	1700
86413	1703	86423	1695	86441	1696	86453	1703	86461	1698	86467	1703
86477	1703	86491	1697	86501	1693	86509	1706	86531	1703	86533	1700
86539	1702	86561	1702	86573	1704	86579	1698	86587	1697	86599	1702
86627	1695	86629	1698	86677	1703	86689	1700	86693	1707	86711	1707
86719	1704	86729	1697	86743	1708	86753	1699	86767	1703	86771	1707
86783	1705	86813	1701	86837	1709	86843	1698	86851	1704	86857	1710
86861	1707	86869	1707	86923	1698	86927	1708	86929	1701	86939	1711
86951	1707	86959	1711	86969	1702	86981	1701	86993	1709	87011	1711
87013	1706	87037	1708	87041	1705	87049	1707	87071	1700	87083	1713
87103	1712	87107	1706	87119	1703	87121	1703	87133	1706	87149	1708
87151	1704	87179	1707	87181	1707	87187	1708	87211	1713	87221	1701
87223	1703	87251	1715	87253	1712	87257	1709	87277	1715	87281	1707
87293	1710	87299	1703	87313	1708	87317	1713	87323	1715	87337	1708
87359	1708	87383	1712	87403	1708	87407	1707	87421	1716	87427	1711
87433	1705	87443	1704	87473	1701	87481	1703	87491	1712	87509	1709

**Table 4.** Continue 16

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
87511	1711	87517	1711	87523	1712	87539	1706	87541	1714	87547	1708
87553	1707	87557	1712	87559	1709	87583	1707	87587	1713	87589	1708
87613	1714	87623	1706	87629	1711	87631	1709	87641	1717	87643	1714
87649	1713	87671	1714	87679	1711	87683	1709	87691	1710	87697	1711
87701	1708	87719	1707	87721	1716	87739	1712	87743	1712	87751	1715
87767	1714	87793	1716	87797	1707	87803	1714	87811	1721	87833	1715
87853	1717	87869	1717	87877	1722	87881	1710	87887	1720	87911	1721
87917	1713	87931	1709	87943	1714	87959	1714	87961	1714	87973	1712
87977	1719	87991	1720	88001	1714	88003	1712	88007	1721	88019	1713
88037	1718	88069	1710	88079	1711	88093	1721	88117	1722	88129	1719
88169	1719	88177	1721	88211	1719	88223	1720	88237	1716	88241	1713
88259	1719	88261	1715	88289	1718	88301	1724	88321	1721	88327	1717
88337	1723	88339	1718	88379	1719	88397	1726	88411	1724	88423	1720
88427	1719	88463	1710	88469	1725	88471	1720	88493	1720	88499	1725
88513	1718	88523	1719	88547	1726	88589	1730	88591	1719	88607	1729
88609	1723	88643	1724	88651	1725	88657	1728	88661	1728	88663	1726
88667	1721	88681	1725	88721	1717	88729	1719	88741	1726	88747	1718
88771	1729	88789	1726	88793	1724	88799	1722	88801	1719	88807	1718
88811	1731	88813	1723	88817	1731	88819	1721	88843	1720	88853	1723
88861	1725	88867	1721	88873	1731	88883	1718	88897	1723	88903	1730
88919	1721	88937	1731	88951	1731	88969	1728	88993	1727	88997	1725
89003	1726	89009	1725	89017	1720	89021	1734	89041	1730	89051	1724
89057	1731	89069	1734	89071	1727	89083	1724	89087	1728	89101	1731
89107	1729	<b>89113</b>	<b>1733</b>	89119	1725	89123	1725	89137	1731	89153	1726
89189	1733	89203	1729	89209	1734	89213	1726	89227	1733	89231	1728
89237	1729	89261	1729	89269	1730	89273	1730	89293	1730	89303	1730
89317	1733	89329	1726	89363	1728	89371	1731	89381	1732	89387	1730
89393	1723	89399	1730	89413	1736	89417	1728	89431	1731	89443	1730
89449	1729	89459	1732	89477	1728	89491	1729	89501	1725	89513	1728
89519	1730	89521	1739	89527	1734	89533	1732	89561	1738	89563	1730
89567	1737	89591	1731	89597	1728	89599	1731	89603	1729	89611	1728
89627	1737	89633	1736	89653	1733	89657	1735	89659	1739	89669	1731
89671	1736	89681	1736	89689	1737	89753	1736	89759	1733	89767	1741
89779	1736	89783	1733	89797	1735	89809	1739	89819	1733	89821	1734
89833	1735	89839	1735	89849	1738	89867	1738	89891	1736	89897	1738

**Table 4.** Continue 17

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
89899	1732	89909	1741	89917	1740	89923	1735	89939	1729	89959	1730
89963	1735	89977	1739	89983	1740	89989	1740	90001	1736	90007	1735
90011	1735	90017	1742	90019	1739	90023	1733	90031	1742	90053	1740
90059	1737	90067	1740	90071	1733	90073	1736	90089	1735	90107	1740
90121	1742	90127	1734	90149	1739	90163	1735	90173	1739	90187	1736
90191	1737	90197	1747	90199	1735	90203	1743	90217	1739	90227	1735
90239	1732	90247	1745	90263	1738	90271	1740	90281	1742	90289	1730
90313	1735	90353	1738	90359	1740	90371	1736	90373	1740	90379	1741
90397	1738	90401	1745	90403	1737	90407	1742	90437	1747	90439	1741
90469	1746	90473	1746	90481	1736	90499	1749	90511	1742	90523	1741
90527	1743	90529	1742	90533	1740	90547	1744	90583	1738	90599	1737
90617	1731	90619	1747	90631	1739	90641	1746	90647	1740	90659	1742
90677	1747	90679	1745	90697	1738	90703	1735	90709	1746	90731	1740
90749	1745	90787	1750	90793	1745	90803	1746	90821	1750	90823	1753
90833	1746	90841	1745	90847	1746	90863	1748	90887	1742	90901	1745
90907	1745	90911	1743	90917	1749	90931	1749	90947	1748	90971	1745
90977	1741	90989	1747	90997	1750	91009	1740	91019	1748	91033	1745
91079	1753	91081	1749	91097	1753	91099	1751	91121	1753	91127	1753
91129	1748	<b>91139</b>	<b>1758</b>	91141	1750	91151	1751	91153	1750	91159	1743
91163	1750	91183	1749	91193	1749	91199	1745	91229	1754	91237	1751
91243	1745	91249	1752	91253	1747	91283	1748	91291	1746	91297	1757
91303	1747	91309	1752	91331	1752	91367	1743	91369	1747	91373	1752
91381	1749	91387	1748	91393	1758	91397	1751	91411	1752	91423	1756
91433	1754	91453	1753	91457	1754	91459	1756	91463	1752	91493	1754
91499	1749	91513	1757	91529	1754	91541	1757	91571	1757	91573	1759
91577	1756	91583	1747	91591	1756	91621	1754	91631	1759	91639	1746
91673	1748	91691	1761	91703	1758	91711	1750	91733	1760	91753	1756
91757	1762	91771	1763	91781	1758	91801	1759	91807	1754	91811	1750
91813	1752	91823	1758	91837	1762	91841	1752	91867	1758	91873	1754
91909	1764	91921	1759	91939	1758	91943	1762	91951	1757	91957	1756
91961	1759	91967	1759	91969	1759	91997	1758	92003	1755	92009	1761
92033	1761	92041	1760	92051	1758	92077	1761	92083	1759	92107	1758
92111	1755	92119	1756	92143	1759	92153	1765	92173	1764	92177	1761
92179	1767	92189	1758	92203	1764	92219	1760	92221	1754	92227	1766
92233	1768	92237	1760	92243	1763	92251	1762	92269	1764	92297	1756

**Table 4.** Continue 18

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
92311	1765	92317	1764	92333	1771	92347	1763	92353	1766	92357	1762
92363	1764	92369	1758	92377	1758	92381	1760	92383	1761	92387	1767
92399	1763	92401	1757	92413	1767	92419	1760	92431	1761	92459	1762
92461	1762	92467	1764	92479	1769	92489	1754	92503	1762	92507	1763
92551	1773	92557	1762	92567	1763	92569	1760	92581	1769	92593	1761
92623	1767	92627	1763	92639	1757	92641	1762	92647	1768	92657	1766
92669	1768	92671	1766	92681	1766	92683	1767	92693	1767	92699	1763
92707	1762	92717	1771	92723	1772	92737	1764	92753	1767	92761	1771
92767	1767	92779	1766	92789	1765	92791	1768	92801	1770	92809	1765
92821	1770	92831	1766	92849	1763	92857	1761	92861	1768	92863	1766
92867	1770	92893	1767	92899	1764	92921	1761	92927	1767	92941	1764
92951	1774	92957	1763	92959	1774	92987	1768	92993	1777	93001	1776
93047	1769	93053	1767	93059	1776	93077	1773	93083	1769	93089	1763
93097	1770	93103	1770	93113	1772	93131	1768	93133	1776	93139	1771
93151	1767	93169	1770	93179	1775	93187	1774	93199	1766	93229	1767
93239	1768	93241	1771	93251	1776	93253	1769	93257	1773	93263	1770
93281	1767	93283	1769	93287	1770	93307	1772	93319	1778	93323	1772
93329	1777	93337	1770	93371	1773	93377	1779	93383	1770	93407	1774
93419	1769	93427	1776	93463	1767	93479	1776	93481	1770	93487	1781
93491	1770	93493	1772	93497	1772	93503	1777	93523	1778	93529	1779
93553	1775	93557	1774	93559	1778	93563	1770	93581	1775	93601	1778
93607	1781	93629	1775	93637	1777	93683	1779	93701	1772	93703	1775
93719	1776	93739	1778	93761	1775	93763	1782	93787	1776	93809	1780
93811	1775	93827	1771	93851	1771	93871	1775	93887	1775	93889	1776
93893	1777	93901	1779	93911	1777	93913	1777	93923	1778	93937	1779
93941	1778	93949	1781	93967	1781	93971	1786	93979	1778	93983	1773
93997	1779	94007	1779	94009	1775	94033	1774	94049	1785	94057	1780
94063	1784	94079	1778	94099	1784	94109	1775	94111	1785	94117	1782
94121	1787	94151	1787	94153	1787	94169	1782	94201	1780	94207	1779
94219	1781	94229	1782	94253	1783	94261	1787	94273	1783	94291	1786
94307	1786	94309	1783	94321	1787	94327	1791	94331	1780	94343	1783
94349	1783	94351	1779	94379	1781	94397	1782	94399	1789	94421	1789
94427	1787	94433	1787	94439	1778	94441	1783	94447	1781	94463	1786
94477	1784	94483	1778	94513	1781	94529	1788	94531	1784	94541	1780
94543	1790	94547	1782	94559	1781	94561	1791	94573	1789	94583	1785



**Table 4.** Continue 19

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
94597	1787	94603	1789	94613	1785	94621	1789	94649	1783	94651	1790
94687	1782	94693	1788	94709	1785	94723	1791	94727	1785	94747	1787
94771	1787	94777	1788	94781	1790	94789	1785	94793	1794	94811	1794
94819	1794	94823	1794	94837	1788	94841	1791	94847	1796	94849	1783
94873	1789	94889	1789	94903	1793	94907	1781	94933	1787	94949	1793
94951	1784	94961	1793	94993	1791	94999	1784	95003	1791	95009	1790
95021	1788	95027	1785	95063	1786	95071	1790	95083	1793	95087	1787
95089	1790	95093	1784	95101	1795	95107	1787	95111	1795	95131	1794
95143	1797	95153	1788	95177	1794	95189	1790	95191	1798	95203	1789
95213	1789	95219	1793	95231	1791	95233	1790	95239	1793	95257	1795
95261	1793	95267	1797	95273	1798	95279	1795	95287	1797	95311	1797
95317	1791	95327	1798	95339	1798	95369	1786	95383	1801	95393	1792
95401	1791	95413	1790	95419	1792	95429	1794	95441	1799	95443	1794
95461	1796	95467	1799	95471	1802	95479	1792	95483	1800	95507	1799
95527	1797	95531	1799	95539	1795	95549	1800	95561	1795	95569	1795
95581	1794	95597	1798	95603	1794	95617	1794	95621	1797	95629	1796
95633	1796	95651	1799	95701	1796	95707	1796	95713	1799	95717	1797
95723	1793	95731	1799	95737	1796	95747	1798	95773	1802	95783	1796
95789	1796	95791	1800	95801	1793	95803	1799	95813	1791	95819	1793
95857	1798	95869	1798	95873	1798	95881	1805	95891	1795	95911	1794
95917	1797	95923	1797	95929	1806	95947	1799	95957	1800	95959	1799
95971	1804	95987	1801	95989	1802	96001	1799	96013	1802	96017	1805
96043	1805	96053	1798	96059	1805	96079	1799	96097	1807	96137	1795
96149	1804	96157	1807	96167	1803	96179	1807	96181	1801	96199	1801
96211	1802	96221	1800	96223	1799	96233	1801	96259	1800	96263	1805
96269	1806	96281	1806	96289	1804	96293	1801	96323	1795	96329	1807
96331	1801	96337	1806	96353	1801	96377	1805	96401	1805	96419	1804
96431	1799	96443	1805	96451	1800	96457	1810	96461	1812	96469	1808
96479	1802	96487	1803	96493	1805	96497	1801	96517	1804	96527	1806
96553	1808	96557	1802	96581	1802	96587	1816	96589	1800	96601	1805
96643	1807	96661	1808	96667	1804	96671	1807	96697	1799	96703	1808
96731	1808	96737	1806	96739	1812	96749	1809	96757	1806	96763	1807
96769	1809	96779	1806	96787	1809	96797	1808	96799	1813	96821	1803
96823	1806	96827	1810	96847	1806	96851	1810	96857	1804	96893	1808
96907	1809	96911	1812	96931	1809	96953	1813	96959	1812	96973	1807

**Table 4.** Continue 20

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
96979	1809	96989	1816	96997	1809	97001	1817	97003	1810	97007	1807
97021	1805	97039	1810	97073	1809	97081	1807	97103	1805	97117	1811
97127	1816	97151	1811	97157	1815	97159	1807	97169	1819	97171	1812
97177	1809	97187	1814	97213	1809	97231	1815	97241	1816	97259	1814
97283	1810	97301	1812	97303	1816	97327	1813	97367	1814	97369	1816
97373	1817	97379	1817	97381	1808	97387	1808	97397	1814	97423	1811
97429	1818	97441	1814	97453	1816	97459	1815	97463	1814	97499	1819
97501	1822	97511	1815	97523	1817	97547	1820	97549	1817	97553	1817
97561	1817	97571	1810	97577	1814	97579	1816	97583	1816	97607	1816
97609	1814	97613	1816	97649	1818	97651	1821	97673	1810	97687	1821
97711	1815	97729	1816	97771	1810	97777	1815	97787	1818	97789	1821
97813	1821	97829	1817	97841	1812	97843	1819	97847	1825	97849	1819
97859	1821	97861	1819	97871	1822	97879	1824	97883	1819	97919	1815
97927	1824	97931	1816	97943	1820	97961	1823	97967	1819	97973	1819
97987	1818	98009	1820	98011	1821	98017	1821	98041	1822	98047	1816
98057	1822	98081	1813	98101	1822	98123	1816	98129	1820	98143	1824
98179	1819	98207	1820	98213	1828	98221	1819	98227	1821	98251	1830
98257	1818	98269	1825	98297	1828	98299	1826	98317	1826	98321	1828
98323	1820	98327	1828	98347	1826	98369	1826	98377	1825	98387	1824
98389	1832	98407	1822	98411	1821	98419	1831	98429	1823	98443	1820
98453	1823	98459	1824	98467	1828	98473	1830	98479	1829	98491	1827
98507	1826	98519	1829	98533	1829	98543	1831	98561	1829	98563	1825
98573	1831	98597	1828	98621	1825	98627	1827	<b>98639</b>	<b>1834</b>	98641	1822
98663	1822	98669	1827	98689	1834	98711	1826	98713	1823	98717	1827
98729	1829	98731	1828	98737	1824	98773	1829	98779	1830	98801	1826
98807	1832	98809	1827	98837	1831	98849	1824	98867	1831	98869	1829
98873	1828	98887	1833	98893	1836	98897	1830	98899	1825	98909	1829
98911	1827	98927	1828	98929	1837	98939	1831	98947	1829	98953	1832
98963	1830	98981	1836	98993	1833	98999	1840	99013	1833	99017	1837
99023	1836	99041	1829	99053	1834	99079	1826	99083	1840	99089	1828
99103	1831	99109	1832	99119	1832	99131	1830	99133	1834	99137	1831
99139	1828	99149	1831	99173	1830	99181	1831	99191	1834	99223	1834
99233	1830	99241	1834	99251	1830	99257	1829	99259	1835	99277	1835
99289	1832	99317	1835	99347	1841	99349	1832	99367	1836	99371	1834
99377	1836	99391	1832	99397	1835	99401	1834	99409	1834	99431	1831

**Table 4.** Continue 21

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
99439	1833	99469	1838	99487	1831	99497	1830	99523	1842	99527	1835
99529	1835	99551	1836	99559	1843	99563	1833	99571	1832	99577	1837
99581	1835	99607	1834	99611	1837	99623	1841	99643	1838	99661	1841
99667	1833	99679	1833	99689	1842	99707	1841	99709	1838	99713	1842
99719	1837	99721	1843	99733	1846	99761	1839	99767	1844	99787	1835
99793	1842	99809	1837	99817	1833	99823	1841	99829	1839	99833	1836
99839	1844	99859	1840	99871	1839	99877	1843	99881	1839	99901	1840
99907	1841	99923	1836	99929	1842	99961	1844	99971	1840	99989	1849
99991	1843										

**Table 5.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $\text{PG}(2, q)$ ,  $100001 \leq q \leq 150000$ ,  $q$  prime<sup>||</sup>

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
100003	1846	100019	1844	100043	1838	100049	1837	100057	1849	100069	1838
100103	1838	100109	1844	100129	1843	100151	1840	100153	1837	100169	1840
100183	1846	100189	1841	100193	1841	100207	1842	100213	1845	100237	1844
100267	1844	100271	1845	100279	1849	100291	1850	100297	1838	100313	1847
100333	1850	100343	1851	100357	1844	100361	1840	100363	1846	100379	1847
100391	1847	100393	1835	100403	1846	100411	1841	100417	1851	100447	1847
100459	1845	100469	1845	100483	1847	100493	1848	100501	1848	100511	1843
100517	1853	100519	1853	100523	1850	100537	1844	100547	1843	100549	1847
100559	1838	100591	1849	100609	1852	100613	1852	100621	1845	100649	1850
100669	1847	100673	1848	100693	1853	<b>100699</b>	<b>1856</b>	100703	1846	100733	1852
100741	1845	100747	1849	100769	1853	100787	1854	100799	1855	100801	1847
100811	1848	100823	1847	100829	1849	100847	1853	100853	1849	100907	1845
100913	1853	100927	1848	100931	1852	100937	1848	100943	1857	100957	1855
100981	1845	100987	1852	100999	1846	101009	1848	101021	1852	101027	1852
101051	1851	101063	1848	101081	1858	101089	1853	101107	1855	101111	1856
101113	1849	101117	1848	101119	1854	101141	1856	101149	1851	101159	1854
101161	1859	101173	1849	101183	1846	101197	1854	101203	1854	101207	1859
101209	1849	101221	1855	101267	1856	101273	1855	101279	1849	101281	1851
101287	1848	101293	1852	101323	1855	101333	1858	101341	1858	101347	1854
101359	1857	101363	1853	101377	1854	101383	1851	101399	1860	101411	1855
101419	1861	101429	1855	101449	1855	101467	1856	101477	1855	101483	1854
101489	1855	101501	1846	101503	1854	101513	1854	101527	1863	101531	1854
101533	1852	101537	1853	101561	1862	101573	1856	101581	1859	101599	1857
101603	1857	101611	1860	101627	1864	101641	1856	101653	1860	101663	1852
101681	1853	101693	1862	101701	1856	101719	1862	101723	1858	101737	1858
101741	1859	101747	1858	101749	1860	101771	1864	101789	1861	101797	1858
101807	1855	101833	1859	101837	1862	101839	1859	101863	1855	101869	1861
101873	1864	101879	1864	101891	1870	101917	1862	101921	1853	101929	1857
101939	1864	101957	1860	101963	1867	101977	1860	101987	1856	101999	1860
102001	1867	102013	1866	102019	1861	102023	1870	102031	1865	102043	1865
102059	1865	102061	1870	102071	1858	102077	1869	102079	1857	102101	1867
102103	1856	102107	1865	102121	1863	102139	1867	102149	1855	102161	1866
102181	1855	102191	1858	102197	1867	102199	1867	102203	1871	102217	1861
102229	1872	102233	1863	102241	1870	102251	1860	102253	1865	102259	1862
102293	1866	102299	1868	102301	1871	102317	1863	102329	1859	102337	1864

<sup>||</sup>The sizes smaller than in [5] are written in **bold font**. For  $q \geq 125017$ , all the sizes are new

**Table 5.** Continue 1

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
102359	1864	102367	1868	102397	1870	102407	1865	102409	1870	102433	1863
102437	1856	102451	1862	102461	1871	102481	1864	102497	1866	102499	1865
102503	1866	102523	1867	102533	1863	102539	1860	102547	1862	102551	1866
102559	1866	102563	1861	102587	1873	102593	1872	102607	1869	102611	1875
102643	1873	102647	1873	102653	1867	102667	1870	102673	1864	102677	1864
102679	1872	102701	1878	102761	1869	102763	1871	102769	1871	102793	1867
102797	1875	102811	1866	102829	1874	102841	1869	102859	1872	102871	1870
102877	1873	102881	1874	102911	1871	102913	1872	102929	1872	102931	1869
102953	1874	102967	1876	102983	1869	103001	1873	103007	1876	103043	1873
103049	1873	103067	1870	103069	1869	103079	1873	103087	1874	103091	1877
103093	1867	103099	1868	103123	1873	103141	1878	103171	1872	103177	1873
103183	1872	103217	1884	103231	1869	103237	1878	103289	1873	103291	1878
103307	1875	103319	1879	103333	1884	103349	1882	103357	1873	103387	1876
103391	1878	103393	1875	103399	1876	103409	1875	103421	1881	103423	1879
103451	1884	103457	1878	103471	1879	103483	1876	103511	1881	103529	1873
103549	1884	103553	1884	103561	1886	103567	1871	103573	1878	103577	1885
103583	1872	103591	1884	103613	1884	103619	1880	103643	1884	103651	1880
103657	1876	103669	1876	103681	1887	103687	1878	103699	1881	103703	1872
103723	1881	103769	1886	103787	1879	103801	1881	103811	1878	103813	1879
103837	1885	103841	1884	103843	1886	103867	1885	103889	1885	103903	1880
103913	1885	103919	1884	103951	1879	103963	1884	103967	1877	103969	1886
103979	1885	103981	1885	103991	1885	103993	1884	103997	1885	104003	1883
104009	1875	104021	1883	104033	1885	104047	1884	104053	1885	104059	1882
104087	1884	104089	1885	104107	1882	104113	1886	104119	1881	104123	1887
104147	1873	104149	1884	104161	1885	104173	1884	104179	1880	104183	1879
104207	1883	104231	1883	104233	1882	104239	1879	104243	1886	104281	1890
104287	1880	104297	1882	104309	1884	104311	1887	104323	1884	104327	1889
104347	1887	104369	1885	104381	1886	104383	1883	104393	1882	104399	1887
104417	1888	104459	1882	104471	1886	104473	1883	104479	1892	104491	1889
104513	1883	104527	1887	104537	1883	104543	1885	104549	1891	104551	1887
104561	1888	104579	1890	104593	1882	104597	1889	104623	1890	104639	1890
104651	1892	104659	1888	104677	1890	104681	1896	104683	1888	104693	1888
104701	1891	104707	1892	104711	1895	104717	1895	104723	1895	104729	1886
104743	1889	104759	1898	104761	1891	104773	1895	104779	1890	104789	1893
104801	1892	104803	1896	104827	1885	104831	1891	104849	1890	104851	1892

**Table 5.** Continue 2

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
104869	1897	104879	1897	104891	1888	104911	1895	104917	1899	104933	1899
104947	1895	104953	1894	104959	1891	104971	1896	104987	1898	104999	1893
105019	1891	105023	1893	105031	1891	105037	1890	105071	1891	105097	1897
105107	1891	105137	1895	105143	1890	105167	1894	105173	1900	105199	1898
105211	1888	105227	1888	105229	1894	105239	1899	105251	1889	105253	1895
105263	1891	105269	1892	105277	1901	105319	1897	<b>105323</b>	<b>1904</b>	105331	1892
105337	1895	105341	1896	105359	1893	105361	1891	105367	1901	105373	1891
105379	1900	105389	1894	105397	1897	105401	1899	105407	1905	105437	1898
105449	1890	105467	1898	105491	1899	105499	1891	105503	1897	105509	1897
105517	1901	105527	1905	105529	1900	105533	1899	105541	1898	105557	1900
105563	1904	105601	1899	105607	1895	105613	1897	105619	1904	105649	1895
105653	1900	105667	1903	105673	1900	105683	1901	105691	1896	105701	1906
105727	1904	105733	1902	105751	1905	105761	1900	105767	1901	105769	1901
105817	1903	105829	1902	105863	1903	105871	1900	105883	1900	105899	1903
105907	1899	105913	1894	105929	1900	105943	1905	105953	1904	105967	1904
105971	1892	105977	1900	105983	1905	105997	1901	106013	1908	106019	1911
106031	1907	106033	1900	106087	1896	106103	1903	106109	1902	106121	1904
106123	1901	106129	1900	106163	1907	106181	1905	106187	1909	106189	1911
106207	1908	106213	1902	106217	1896	106219	1909	106243	1906	106261	1908
106273	1903	106277	1904	106279	1908	106291	1902	106297	1909	106303	1904
106307	1897	106319	1904	106321	1897	106331	1895	106349	1907	106357	1900
106363	1909	106367	1907	106373	1903	106391	1907	106397	1907	106411	1910
106417	1907	106427	1904	106433	1904	106441	1907	106451	1911	106453	1908
106487	1899	106501	1910	106531	1908	106537	1905	106541	1911	106543	1904
106591	1906	106619	1911	106621	1910	106627	1903	106637	1915	106649	1913
106657	1904	106661	1907	106663	1908	106669	1910	106681	1904	106693	1911
106699	1913	106703	1907	106721	1905	106727	1911	106739	1910	106747	1902
106751	1912	106753	1903	106759	1909	106781	1908	106783	1912	106787	1910
106801	1905	106823	1911	106853	1912	106859	1918	106861	1914	106867	1911
106871	1913	106877	1918	106903	1912	106907	1912	106921	1914	106937	1914
106949	1912	106957	1908	106961	1916	106963	1920	106979	1912	106993	1911
107021	1915	107033	1922	107053	1913	107057	1921	107069	1913	107071	1908
107077	1916	107089	1915	107099	1910	107101	1909	107119	1909	107123	1918
107137	1911	107171	1917	107183	1910	107197	1914	107201	1918	107209	1911
107227	1910	107243	1924	107251	1908	107269	1920	107273	1907	107279	1913

**Table 5.** Continue 3

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
107309	1920	107323	1913	107339	1923	107347	1918	107351	1910	107357	1913
107377	1911	107441	1919	107449	1912	107453	1920	107467	1919	107473	1915
107507	1920	107509	1920	107563	1917	107581	1919	107599	1920	107603	1913
107609	1919	107621	1918	107641	1920	107647	1915	107671	1923	107687	1927
107693	1926	107699	1925	107713	1922	107717	1917	107719	1921	107741	1916
107747	1919	107761	1916	107773	1918	107777	1918	107791	1920	107827	1920
107837	1921	107839	1917	107843	1921	107857	1916	107867	1921	107873	1927
107881	1917	107897	1920	107903	1917	107923	1914	107927	1926	107941	1920
107951	1913	107971	1920	107981	1923	107999	1924	108007	1920	108011	1920
108013	1927	108023	1919	108037	1926	108041	1927	108061	1921	108079	1925
108089	1922	108107	1926	108109	1924	108127	1927	108131	1922	108139	1925
108161	1919	108179	1920	108187	1930	108191	1926	108193	1922	108203	1928
108211	1922	108217	1925	108223	1924	108233	1922	108247	1924	108263	1923
108271	1924	108287	1926	108289	1925	108293	1926	108301	1930	108343	1924
108347	1929	108359	1913	108377	1920	108379	1921	108401	1928	108413	1927
108421	1924	108439	1921	108457	1925	108461	1930	108463	1928	108497	1928
108499	1929	108503	1924	108517	1928	108529	1930	108533	1930	108541	1931
108553	1917	108557	1922	108571	1926	108587	1924	108631	1934	108637	1918
108643	1932	108649	1933	108677	1931	108707	1923	108709	1935	108727	1929
108739	1936	108751	1925	108761	1934	108769	1930	108791	1921	108793	1931
108799	1933	108803	1933	108821	1931	108827	1933	108863	1934	108869	1925
<b>108877</b>	<b>1937</b>	108881	1924	108883	1928	108887	1928	108893	1921	108907	1929
108917	1929	108923	1932	108929	1930	108943	1930	108947	1932	108949	1933
108959	1932	108961	1930	108967	1934	108971	1931	108991	1925	109001	1932
109013	1930	109037	1938	109049	1929	109063	1934	109073	1935	109097	1934
109103	1938	109111	1931	109121	1937	109133	1936	109139	1933	109141	1932
109147	1936	109159	1930	109169	1937	109171	1936	109199	1931	109201	1936
109211	1933	109229	1937	109253	1936	109267	1934	109279	1931	109297	1933
109303	1931	109313	1929	109321	1933	109331	1934	109357	1929	109363	1942
109367	1935	109379	1936	109387	1929	109391	1928	109397	1930	109423	1939
109433	1935	109441	1944	109451	1942	109453	1942	109469	1937	109471	1941
109481	1939	109507	1938	109517	1936	109519	1946	109537	1935	109541	1931
109547	1937	109567	1941	109579	1939	109583	1939	109589	1936	109597	1939
109609	1938	109619	1937	109621	1936	109639	1940	109661	1932	109663	1936
109673	1940	109717	1941	109721	1941	109741	1934	109751	1937	109789	1938

**Table 5.** Continue 4

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
109793	1940	109807	1939	109819	1941	109829	1942	109831	1944	109841	1940
109843	1949	109847	1946	109849	1945	109859	1938	109873	1935	109883	1934
109891	1945	109897	1942	109903	1941	109913	1939	109919	1938	109937	1944
109943	1943	109961	1945	109987	1948	110017	1945	110023	1944	110039	1944
110051	1942	110059	1942	110063	1947	110069	1940	110083	1950	110119	1940
110129	1942	110161	1939	110183	1942	110221	1941	110233	1942	110237	1946
110251	1936	110261	1938	110269	1949	110273	1941	110281	1947	110291	1936
110311	1943	110321	1946	110323	1946	110339	1939	110359	1943	110419	1939
110431	1948	110437	1941	110441	1940	110459	1943	110477	1941	110479	1954
110491	1947	110501	1949	110503	1945	110527	1940	110533	1940	110543	1950
110557	1948	110563	1947	110567	1951	110569	1950	110573	1945	110581	1951
110587	1957	110597	1947	110603	1942	110609	1946	110623	1949	110629	1947
110641	1945	110647	1949	110651	1951	110681	1950	110711	1950	110729	1948
110731	1944	110749	1951	110753	1945	110771	1955	110777	1952	110807	1947
110813	1951	110819	1946	110821	1949	110849	1946	110863	1949	110879	1942
110881	1947	110899	1951	110909	1953	110917	1955	110921	1949	110923	1950
110927	1948	110933	1945	110939	1951	110947	1949	110951	1953	110969	1950
110977	1960	110989	1957	111029	1951	111031	1954	111043	1950	111049	1954
111053	1953	111091	1951	111103	1953	111109	1945	111119	1953	111121	1951
111127	1948	111143	1952	111149	1944	111187	1949	111191	1952	111211	1949
111217	1953	111227	1952	111229	1958	111253	1956	111263	1959	111269	1950
111271	1949	111301	1951	111317	1950	111323	1956	111337	1961	111341	1959
111347	1952	111373	1952	111409	1959	111427	1951	111431	1956	111439	1956
111443	1960	111467	1960	111487	1959	111491	1960	111493	1957	111497	1961
111509	1954	111521	1959	111533	1954	111539	1957	111577	1954	111581	1956
111593	1959	111599	1956	111611	1953	111623	1957	111637	1957	111641	1963
111653	1962	111659	1962	111667	1956	111697	1953	111721	1959	111731	1952
111733	1954	111751	1952	111767	1961	111773	1965	111779	1961	111781	1959
111791	1961	111799	1961	111821	1959	111827	1960	111829	1955	111833	1957
111847	1953	111857	1968	111863	1960	111869	1961	111871	1963	111893	1965
111913	1965	111919	1951	111949	1956	111953	1955	111959	1964	111973	1959
111977	1959	111997	1958	112019	1962	112031	1964	112061	1963	112067	1966
112069	1963	112087	1954	112097	1964	112103	1961	112111	1966	112121	1965
112129	1963	112139	1966	112153	1961	112163	1957	112181	1957	112199	1968
112207	1960	112213	1966	112223	1966	112237	1962	112241	1966	112247	1964



**Table 5.** Continue 5

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
112249	1966	112253	1967	112261	1959	112279	1965	112289	1973	112291	1964
112297	1965	112303	1962	112327	1963	112331	1966	112337	1960	112339	1963
112349	1964	112361	1968	112363	1963	112397	1969	112403	1963	112429	1960
112459	1964	112481	1970	112501	1968	112507	1965	112543	1958	112559	1974
112571	1966	112573	1974	112577	1961	112583	1975	112589	1971	112601	1972
112603	1970	112621	1972	112643	1963	112657	1969	112663	1972	112687	1970
112691	1965	112741	1975	112757	1972	112759	1961	112771	1976	112787	1971
112799	1967	112807	1967	112831	1970	112843	1971	112859	1965	112877	1971
112901	1969	112909	1970	112913	1971	112919	1966	112921	1967	112927	1968
112939	1972	112951	1976	112967	1973	112979	1971	112997	1972	113011	1969
113017	1966	113021	1967	113023	1971	113027	1967	113039	1963	113041	1975
113051	1971	113063	1978	113081	1963	113083	1977	113089	1977	113093	1977
113111	1971	113117	1979	113123	1969	113131	1971	113143	1969	113147	1977
113149	1979	113153	1962	113159	1977	113161	1969	113167	1976	113171	1967
113173	1979	113177	1972	113189	1970	113209	1973	113213	1970	113227	1974
113233	1982	113279	1975	113287	1978	113327	1978	113329	1974	113341	1974
113357	1979	113359	1977	113363	1971	113371	1971	113381	1970	113383	1971
113417	1972	113437	1971	113453	1974	113467	1972	113489	1967	113497	1972
113501	1981	113513	1978	113537	1971	113539	1976	113557	1981	113567	1972
113591	1979	113621	1973	113623	1981	113647	1972	113657	1977	113683	1975
113717	1975	113719	1977	113723	1973	113731	1982	113749	1975	113759	1976
113761	1972	113777	1979	113779	1974	113783	1982	113797	1988	113809	1978
113819	1976	113837	1971	113843	1987	113891	1979	113899	1978	113903	1980
113909	1978	113921	1981	113933	1978	113947	1979	113957	1978	113963	1974
113969	1986	113983	1983	113989	1978	114001	1987	114013	1983	114031	1982
114041	1982	114043	1977	114067	1976	114073	1982	114077	1984	114083	1971
114089	1979	114113	1984	114143	1981	114157	1978	114161	1981	114167	1981
114193	1980	114197	1982	114199	1985	114203	1975	114217	1978	114221	1983
114229	1983	114259	1982	114269	1979	114277	1986	114281	1988	114299	1984
114311	1988	114319	1986	114329	1986	114343	1984	114371	1985	114377	1986
114407	1987	114419	1981	114451	1988	114467	1986	114473	1986	114479	1992
114487	1983	114493	1992	114547	1986	114553	1981	114571	1986	114577	1996
114593	1990	114599	1988	114601	1981	114613	1988	114617	1990	114641	1984
114643	1985	114649	1993	114659	1992	114661	1985	114671	1986	114679	1991
114689	1991	114691	1987	114713	1990	114743	1989	114749	1983	114757	1994

**Table 5.** Continue 6

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
114761	1992	114769	1991	114773	1986	114781	1988	114797	1988	114799	1990
114809	1987	114827	1988	114833	1983	114847	1989	114859	1986	114883	1992
114889	1987	114901	1989	114913	1987	114941	1984	114967	1985	114973	1991
114997	1986	115001	1990	115013	1988	115019	1981	115021	1996	115057	1988
115061	1993	115067	1990	115079	1985	115099	1989	115117	1992	115123	1988
115127	1991	115133	1991	115151	1993	115153	1994	115163	1989	115183	1991
115201	1993	115211	1995	115223	1995	115237	1988	115249	1989	115259	1995
115279	1993	115301	1996	115303	1993	115309	1994	115319	1998	115321	1987
115327	1991	115331	1996	115337	1989	115343	1993	115361	1992	115363	2003
115399	1987	115421	1996	115429	1995	115459	1993	115469	2001	115471	1997
115499	2003	115513	2002	115523	1993	115547	1991	115553	1988	115561	1998
115571	1993	115589	1988	115597	1994	115601	1994	115603	1996	115613	1988
115631	1991	115637	1995	115657	1985	115663	1995	115679	1993	115693	2001
115727	1999	115733	1996	115741	2005	115751	2000	115757	2002	115763	1997
115769	2002	115771	1994	115777	1994	115781	2002	115783	2005	115793	2002
115807	1998	115811	1998	115823	2002	115831	1991	115837	1996	115849	2005
115853	1995	115859	1995	115861	1999	115873	1992	115877	1993	115879	1994
115883	2000	115891	1998	115901	1999	115903	2003	115931	1999	115933	2000
115963	1990	115979	1999	115981	2000	115987	2002	116009	2000	116027	2004
116041	2001	116047	2004	116089	1997	116099	1997	116101	2004	116107	2001
116113	2003	116131	1997	116141	1998	116159	1994	116167	2000	116177	2005
116189	1994	116191	2002	116201	2007	<b>116239</b>	<b>2011</b>	116243	1995	116257	2000
116269	2003	116273	2000	116279	2000	116293	2003	116329	2000	116341	2005
116351	2005	116359	2007	116371	2003	116381	2010	116387	1999	116411	2008
116423	2002	116437	2001	116443	2004	116447	2005	116461	2000	116471	2001
116483	2005	116491	1999	116507	2002	116531	2014	116533	2007	116537	2006
116539	2001	116549	1999	116579	2008	116593	2004	116639	2008	116657	2006
116663	2002	116681	2011	116687	2001	116689	2006	116707	2003	116719	2008
116731	2008	116741	2005	116747	2008	116789	2007	116791	2008	116797	2008
116803	2006	116819	2006	116827	2011	116833	2012	116849	2007	116867	2005
116881	2014	116903	2004	116911	2007	116923	2009	116927	2011	116929	2009
116933	2010	116953	2007	116959	2013	116969	2009	116981	2016	116989	2019
116993	2014	117017	2007	117023	2007	117037	2010	117041	2012	117043	2017
117053	2009	117071	2007	117101	2016	117109	2012	117119	2011	117127	2011
117133	2011	117163	2011	117167	2016	117191	2010	117193	2012	117203	2006

**Table 5.** Continue 7

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
117209	2008	117223	2008	117239	2010	117241	2007	117251	2014	117259	2012
117269	2004	117281	2019	117307	2010	117319	2014	117329	2012	117331	2012
117353	2011	117361	2009	117371	2012	117373	2013	117389	2012	117413	2010
117427	2013	117431	2010	117437	2013	117443	2014	117497	2017	117499	2018
117503	2008	117511	2012	117517	2017	117529	2009	117539	2012	117541	2006
117563	2018	117571	2008	117577	2011	117617	2013	117619	2014	117643	2013
117659	2017	117671	2012	117673	2009	117679	2015	117701	2024	117703	2015
117709	2020	117721	2015	117727	2017	117731	2014	117751	2022	117757	2011
117763	2020	117773	2009	117779	2019	117787	2019	117797	2019	117809	2018
117811	2020	117833	2021	117839	2019	117841	2017	117851	2016	117877	2024
117881	2017	117883	2021	117889	2021	117899	2013	117911	2021	117917	2024
117937	2012	117959	2019	117973	2012	117977	2023	117979	2016	117989	2023
117991	2016	118033	2019	118037	2022	118043	2021	118051	2025	118057	2023
118061	2011	118081	2021	118093	2014	118127	2013	118147	2023	118163	2022
118169	2016	118171	2022	118189	2014	118211	2019	118213	2022	118219	2022
118247	2021	118249	2022	118253	2028	118259	2021	118273	2027	118277	2022
118297	2020	118343	2016	118361	2021	118369	2024	<b>118373</b>	<b>2031</b>	118387	2022
118399	2029	118409	2023	118411	2022	118423	2016	118429	2024	118453	2021
118457	2030	118463	2027	118471	2022	118493	2020	118529	2021	118543	2022
118549	2018	118571	2024	118583	2030	118589	2028	118603	2025	118619	2029
118621	2026	118633	2027	118661	2028	118669	2025	118673	2022	118681	2023
118687	2019	118691	2029	118709	2026	118717	2024	118739	2022	118747	2021
118751	2026	118757	2031	118787	2025	118799	2026	118801	2022	118819	2021
118831	2027	118843	2023	118861	2036	118873	2028	118891	2030	118897	2027
118901	2028	118903	2028	118907	2027	118913	2022	118927	2023	118931	2027
118967	2030	118973	2026	119027	2024	119033	2033	119039	2027	119047	2030
119057	2024	119069	2024	119083	2026	119087	2033	119089	2027	119099	2030
119101	2031	119107	2037	119129	2031	119131	2028	119159	2022	119173	2033
119179	2027	119183	2029	119191	2031	119227	2032	119233	2037	119237	2030
119243	2028	119267	2032	119291	2028	119293	2032	119297	2033	119299	2034
119311	2028	119321	2031	119359	2036	119363	2035	119389	2025	119417	2021
119419	2031	119429	2032	119447	2027	119489	2032	119503	2038	119513	2037
119533	2034	119549	2032	119551	2032	119557	2040	119563	2038	119569	2031
119591	2025	119611	2031	119617	2032	119627	2035	119633	2031	119653	2039
119657	2040	119659	2029	119671	2037	119677	2035	119687	2036	119689	2037

**Table 5.** Continue 8

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
119699	2043	119701	2035	119723	2035	119737	2034	119747	2028	119759	2044
119771	2031	119773	2029	119783	2035	119797	2031	119809	2031	119813	2041
119827	2030	119831	2037	119839	2029	119849	2040	119851	2037	119869	2043
119881	2043	119891	2033	119921	2038	119923	2036	119929	2039	119953	2041
119963	2041	119971	2038	119981	2040	119983	2035	119993	2036	120011	2039
120017	2035	120041	2042	120047	2037	120049	2037	120067	2040	120077	2037
120079	2040	120091	2037	120097	2032	120103	2033	120121	2041	120157	2042
120163	2043	120167	2037	120181	2033	120193	2038	120199	2045	120209	2037
120223	2034	120233	2041	120247	2046	120277	2044	120283	2046	120293	2045
120299	2043	120319	2037	120331	2038	120349	2045	120371	2046	120383	2047
120391	2041	120397	2043	120401	2043	120413	2040	120427	2044	120431	2046
120473	2040	120503	2046	120511	2032	120539	2038	120551	2043	120557	2043
120563	2041	120569	2053	120577	2038	120587	2042	120607	2039	120619	2043
120623	2042	120641	2041	120647	2044	120661	2048	120671	2050	120677	2045
120689	2041	120691	2047	120709	2049	120713	2039	120721	2043	120737	2048
120739	2044	120749	2042	120763	2045	120767	2040	120779	2047	120811	2043
120817	2049	120823	2037	120829	2047	120833	2043	120847	2040	120851	2047
120863	2049	120871	2039	120877	2042	120889	2042	120899	2046	120907	2043
120917	2051	120919	2042	120929	2041	120937	2054	120941	2043	120943	2050
120947	2043	120977	2047	120997	2048	121001	2045	121007	2051	121013	2046
121019	2053	121021	2043	121039	2046	121061	2038	121063	2045	121067	2044
121081	2043	121123	2051	121139	2045	121151	2044	121157	2051	121169	2054
121171	2041	121181	2050	121189	2046	121229	2052	121259	2050	121267	2052
121271	2049	121283	2059	121291	2052	121309	2048	121313	2044	121321	2047
121327	2060	121333	2055	121343	2049	121349	2053	121351	2049	121357	2050
121367	2054	121369	2045	121379	2051	121403	2057	121421	2055	121439	2061
121441	2048	121447	2048	121453	2054	121469	2048	121487	2047	121493	2050
121501	2051	121507	2051	121523	2057	121531	2047	121547	2048	121553	2051
121559	2050	121571	2050	121577	2051	121579	2052	121591	2055	121607	2050
121609	2053	121621	2052	121631	2051	121633	2055	121637	2050	121661	2049
121687	2045	121697	2054	121711	2051	121721	2052	121727	2056	121763	2047
121787	2050	121789	2051	121843	2059	121853	2051	121867	2058	121883	2045
121889	2055	121909	2052	121921	2061	121931	2054	121937	2053	121949	2058
121951	2056	121963	2052	121967	2054	121993	2062	121997	2060	122011	2057
122021	2055	122027	2048	122029	2056	122033	2059	122039	2060	122041	2059

**Table 5.** Continue 9

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
122051	2055	122053	2058	122069	2056	122081	2057	122099	2055	122117	2054
122131	2061	122147	2053	122149	2060	122167	2055	122173	2056	122201	2057
122203	2060	122207	2057	122209	2062	122219	2056	122231	2056	122251	2052
122263	2061	122267	2062	122273	2057	122279	2058	122299	2053	122321	2059
122323	2055	<b>122327</b>	<b>2058</b>	122347	2056	122363	2059	122387	2057	122389	2055
122393	2063	122399	2064	122401	2061	122443	2053	122449	2063	122453	2056
122471	2058	122477	2063	122489	2059	122497	2061	122501	2057	122503	2066
122509	2059	122527	2066	122533	2066	122557	2063	122561	2070	122579	2061
122597	2057	122599	2064	122609	2056	122611	2058	122651	2064	122653	2057
122663	2071	122693	2059	122701	2065	122719	2065	122741	2063	122743	2064
122753	2060	122761	2057	122777	2052	122789	2057	122819	2062	122827	2062
122833	2061	122839	2068	122849	2063	122861	2059	122867	2058	122869	2058
122887	2066	122891	2063	122921	2062	122929	2065	122939	2054	122953	2071
122957	2062	122963	2069	122971	2061	123001	2064	123007	2057	123017	2072
123031	2064	<b>123049</b>	<b>2061</b>	123059	2058	123077	2066	123083	2057	123091	2065
123113	2068	123121	2060	123127	2064	123143	2061	123169	2065	123191	2064
123203	2061	123209	2069	123217	2070	123229	2064	123239	2064	123259	2066
123269	2071	123289	2067	123307	2069	123311	2067	123323	2065	123341	2068
123373	2070	123377	2069	123379	2068	123397	2061	123401	2069	123407	2068
123419	2069	123427	2067	123433	2075	123439	2063	123449	2068	123457	2069
123479	2067	123491	2071	123493	2068	123499	2066	123503	2078	123517	2066
123527	2066	123547	2069	123551	2068	123553	2072	123581	2062	123583	2069
123593	2073	123601	2056	123619	2070	123631	2069	123637	2077	123653	2070
123661	2076	123667	2068	123677	2073	123701	2065	123707	2068	123719	2065
123727	2071	123731	2071	123733	2063	123737	2074	123757	2081	123787	2075
123791	2068	123803	2068	123817	2071	123821	2074	123829	2077	<b>123833</b>	<b>2075</b>
123853	2073	123863	2068	123887	2071	123911	2070	123923	2069	123931	2073
123941	2068	123953	2075	123973	2073	123979	2074	123983	2077	123989	2068
123997	2077	124001	2072	124021	2076	124067	2075	124087	2075	124097	2077
124121	2076	124123	2068	124133	2078	124139	2066	124147	2069	124153	2075
124171	2073	124181	2078	124183	2070	124193	2075	124199	2077	124213	2072
124231	2074	124247	2069	124249	2073	124277	2071	124291	2076	124297	2076
124301	2074	124303	2077	124309	2079	124337	2079	<b>124339</b>	<b>2074</b>	124343	2084
124349	2078	124351	2075	124363	2082	124367	2081	124427	2080	124429	2080
<b>124433</b>	<b>2074</b>	124447	2083	124459	2083	124471	2079	124477	2089	124489	2084

**Table 5.** Continue 10

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
124493	2083	124513	2075	124529	2081	124541	2084	124543	2079	124561	2078
124567	2079	124577	2080	124601	2085	124633	2081	124643	2081	<b>124669</b>	<b>2079</b>
<b>124673</b>	<b>2066</b>	124679	2080	124693	2072	124699	2086	124703	2084	124717	2084
124721	2084	124739	2078	124753	2072	124759	2076	124769	2083	124771	2085
124777	2079	124781	2081	124783	2091	124793	2087	124799	2090	124819	2078
124823	2082	124847	2089	124853	2078	124897	2073	124907	2085	124909	2090
124919	2078	124951	2086	124979	2084	124981	2088	124987	2086	124991	2083
125003	2089	125017	2085	125029	2081	125053	2085	125063	2085	125093	2087
<b>125101</b>	<b>2091</b>	125107	2076	125113	2083	125117	2080	125119	2081	125131	2083
125141	2080	125149	2086	125183	2086	125197	2084	125201	2088	125207	2080
125219	2083	125221	2095	125231	2082	125243	2092	125261	2088	125269	2094
125287	2088	125299	2093	125303	2088	125311	2089	125329	2084	125339	2084
125353	2086	125371	2087	125383	2084	125387	2087	125399	2087	125407	2093
125423	2092	125429	2082	125441	2087	125453	2088	125471	2087	125497	2087
125507	2088	125509	2087	125527	2087	125539	2086	125551	2088	125591	2089
125597	2085	125617	2091	125621	2085	125627	2096	125639	2085	125641	2096
125651	2087	125659	2088	125669	2083	125683	2087	125687	2094	125693	2097
125707	2093	125711	2094	125717	2090	125731	2098	125737	2099	125743	2086
125753	2096	125777	2090	125789	2090	125791	2097	125803	2089	125813	2090
125821	2089	125863	2088	125887	2098	125897	2094	125899	2088	125921	2091
125927	2096	125929	2088	125933	2093	125941	2093	125959	2085	125963	2098
126001	2088	<b>126011</b>	<b>2086</b>	126013	2097	126019	2086	126023	2100	126031	2096
126037	2093	126041	2094	126047	2090	126067	2092	126079	2089	126097	2093
126107	2095	126127	2094	126131	2098	126143	2103	126151	2087	126173	2091
126199	2092	126211	2100	126223	2100	126227	2099	126229	2095	126233	2093
126241	2092	126257	2097	126271	2096	126307	2097	126311	2093	126317	2095
126323	2098	126337	2093	126341	2092	126349	2095	126359	2091	126397	2097
126421	2089	126433	2096	126443	2102	126457	2097	126461	2098	126473	2098
126481	2100	126487	2100	126491	2098	126493	2095	126499	2095	126517	2096
126541	2097	126547	2102	126551	2100	126583	2092	126601	2096	126611	2092
126613	2101	126631	2096	126641	2101	126653	2095	126683	2093	126691	2102
126703	2101	126713	2100	126719	2098	126733	2094	126739	2102	126743	2098
126751	2103	126757	2100	126761	2101	126781	2095	126823	2103	126827	2107
126839	2102	126851	2101	126857	2103	126859	2100	126913	2099	126923	2105
126943	2099	126949	2104	126961	2105	126967	2103	126989	2092	<b>127031</b>	<b>2103</b>

**Table 5.** Continue 11

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
127033	2107	127037	2102	127051	2092	127079	2105	127081	2101	127103	2107
127123	2104	127133	2105	127139	2100	127157	2098	127163	2105	127189	2107
127207	2107	127217	2099	127219	2102	127241	2105	127247	2099	127249	2099
127261	2104	127271	2103	127277	2104	127289	2105	127291	2105	127297	2106
127301	2109	127321	2102	127331	2099	127343	2109	127363	2105	127373	2101
127399	2100	127403	2102	127423	2100	127447	2103	127453	2107	127481	2106
127487	2104	127493	2110	127507	2102	127529	2100	127541	2110	127549	2107
127579	2109	127583	2097	127591	2108	127597	2102	127601	2108	127607	2102
127609	2102	127637	2102	127643	2106	127649	2107	127657	2105	127663	2110
127669	2113	127679	2110	127681	2108	127691	2107	127703	2105	127709	2103
127711	2116	127717	2113	127727	2106	127733	2111	127739	2115	127747	2112
127763	2111	127781	2111	127807	2114	127817	2112	127819	2112	127837	2117
127843	2113	127849	2108	127859	2114	127867	2109	127873	2108	127877	2103
127913	2110	127921	2103	127931	2111	127951	2110	127973	2112	127979	2113
127997	2107	<b>128021</b>	<b>2114</b>	128033	2114	128047	2112	128053	2114	128099	2114
128111	2113	128113	2108	128119	2111	128147	2110	128153	2112	128159	2110
128173	2110	128189	2109	128201	2113	128203	2102	128213	2109	128221	2111
128237	2112	128239	2111	128257	2111	128273	2111	128287	2108	128291	2113
128311	2110	128321	2115	128327	2104	128339	2112	128341	2113	128347	2114
128351	2112	128377	2106	128389	2110	128393	2114	128399	2110	128411	2115
128413	2113	128431	2114	128437	2118	128449	2110	128461	2110	128467	2113
128473	2117	128477	2110	128483	2109	128489	2113	128509	2110	128519	2116
128521	2106	128549	2111	128551	2116	128563	2113	128591	2117	128599	2108
128603	2113	128621	2112	128629	2117	128657	2112	128659	2119	128663	2111
128669	2106	128677	2112	128693	2113	128717	2108	128747	2115	128749	2110
128761	2117	128767	2113	128813	2118	128819	2117	128831	2113	128833	2118
128837	2114	128857	2109	128861	2119	128873	2114	128879	2120	128903	2113
128923	2117	128939	2116	128941	2111	128951	2115	128959	2115	128969	2110
128971	2120	128981	2113	128983	2112	128987	2116	128993	2115	<b>129001</b>	<b>2117</b>
129011	2119	129023	2116	129037	2119	129049	2115	129061	2115	129083	2118
129089	2125	129097	2120	129113	2112	129119	2115	129121	2116	129127	2118
129169	2113	129187	2112	129193	2116	129197	2116	129209	2119	129221	2120
129223	2114	129229	2113	129263	2115	129277	2117	129281	2115	129287	2113
129289	2128	129293	2119	129313	2121	129341	2125	129347	2122	129361	2128
129379	2123	129401	2116	129403	2120	129419	2116	129439	2116	129443	2121

**Table 5.** Continue 12

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
129449	2116	129457	2127	129461	2119	129469	2119	129491	2124	129497	2121
129499	2117	129509	2118	129517	2127	129527	2121	129529	2122	129533	2115
129539	2123	129553	2127	129581	2120	129587	2120	129589	2116	129593	2122
129607	2121	129629	2121	129631	2125	129641	2119	129643	2117	129671	2120
129707	2113	129719	2132	129733	2125	129737	2125	129749	2117	129757	2124
129763	2119	129769	2124	129793	2127	129803	2124	129841	2118	129853	2120
129887	2129	129893	2128	129901	2125	129917	2126	129919	2126	129937	2122
129953	2124	129959	2130	129967	2120	129971	2124	130003	2127	130021	2124
130027	2126	130043	2125	130051	2124	130057	2131	130069	2134	130073	2127
130079	2125	130087	2131	130099	2130	130121	2125	130127	2125	130147	2128
130171	2134	130183	2133	130199	2127	130201	2129	130211	2128	130223	2128
130241	2130	130253	2132	130259	2127	130261	2127	130267	2134	130279	2123
130303	2130	130307	2123	130337	2130	130343	2132	130349	2137	130363	2126
130367	2128	130369	2133	130379	2133	130399	2132	130409	2135	130411	2135
130423	2122	130439	2135	130447	2131	130457	2133	130469	2129	130477	2133
130483	2127	130489	2130	<b>130513</b>	<b>2134</b>	130517	2129	130523	2129	130531	2128
130547	2128	130553	2130	130579	2127	130589	2134	130619	2131	130621	2138
130631	2127	130633	2131	130639	2129	130643	2132	130649	2132	130651	2137
130657	2129	130681	2138	130687	2128	130693	2130	130699	2133	130729	2141
130769	2134	130783	2131	130787	2131	130807	2128	130811	2131	130817	2136
130829	2136	130841	2131	130843	2134	130859	2132	130873	2136	130927	2135
130957	2134	130969	2138	130973	2133	130981	2136	130987	2128	<b>131009</b>	<b>2130</b>
131011	2133	131023	2140	131041	2132	131059	2134	131063	2135	131071	2139
131101	2133	131111	2134	131113	2133	131129	2136	131143	2135	131149	2139
131171	2139	131203	2142	131213	2133	131221	2139	131231	2139	131249	2136
131251	2137	131267	2140	131293	2135	131297	2141	131303	2139	131311	2137
131317	2141	131321	2143	131357	2141	131363	2138	131371	2141	131381	2144
131413	2144	131431	2148	131437	2142	131441	2142	131447	2144	131449	2140
131477	2141	131479	2142	131489	2139	131497	2134	131501	2142	131507	2148
131519	2138	131543	2143	131561	2143	131581	2138	131591	2145	131611	2141
131617	2141	131627	2133	131639	2136	131641	2138	131671	2142	131687	2138
131701	2139	131707	2138	131711	2143	131713	2139	131731	2144	131743	2142
131749	2143	131759	2142	131771	2140	131777	2144	131779	2139	131783	2142
131797	2139	131837	2141	131839	2142	131849	2139	131861	2139	131891	2145
131893	2145	131899	2143	131909	2144	131927	2148	131933	2140	131939	2152



**Table 5.** Continue 13

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
131941	2140	131947	2148	131959	2145	131969	2141	<b>132001</b>	<b>2142</b>	132019	2143
132047	2143	132049	2147	132059	2140	132071	2142	132103	2136	132109	2142
132113	2149	132137	2147	132151	2141	132157	2145	132169	2145	132173	2143
132199	2145	132229	2147	132233	2146	132241	2145	132247	2146	132257	2147
132263	2149	132283	2143	132287	2150	132299	2149	132313	2150	132329	2151
132331	2144	132347	2144	132361	2149	132367	2148	132371	2144	132383	2146
132403	2147	132409	2141	132421	2143	132437	2148	132439	2146	132469	2148
132491	2146	132499	2142	132511	2151	132523	2145	132527	2147	132529	2152
132533	2149	132541	2146	132547	2145	132589	2151	132607	2151	132611	2145
132619	2148	132623	2151	132631	2149	132637	2156	132647	2148	132661	2149
132667	2156	132679	2154	132689	2146	132697	2149	132701	2153	132707	2152
132709	2148	132721	2154	132739	2152	132749	2154	132751	2152	132757	2147
132761	2152	132763	2152	132817	2156	132833	2145	132851	2158	132857	2147
132859	2150	132863	2150	132887	2148	132893	2155	132911	2151	132929	2148
132947	2149	132949	2152	132953	2149	132961	2145	132967	2153	132971	2153
132989	2151	<b>133013</b>	<b>2153</b>	133033	2151	133039	2148	133051	2155	133069	2150
133073	2151	133087	2153	133097	2155	133103	2150	133109	2147	133117	2154
133121	2148	133153	2153	133157	2150	133169	2150	133183	2153	133187	2153
133201	2153	133213	2152	133241	2152	133253	2156	133261	2152	133271	2149
133277	2159	133279	2152	133283	2152	133303	2159	133319	2157	133321	2155
133327	2156	133337	2153	133349	2148	133351	2148	133379	2154	133387	2152
133391	2154	133403	2153	133417	2157	133439	2155	133447	2158	133451	2156
133481	2159	133493	2154	133499	2157	133519	2154	133541	2158	133543	2159
133559	2151	133571	2157	133583	2152	133597	2161	133631	2153	133633	2159
133649	2155	133657	2161	133669	2160	133673	2159	133691	2160	133697	2162
133709	2155	133711	2158	133717	2154	133723	2161	133733	2157	133769	2154
133781	2159	133801	2161	133811	2159	133813	2166	133831	2161	133843	2163
133853	2165	133873	2168	133877	2165	133919	2160	133949	2158	133963	2160
133967	2164	133979	2163	133981	2165	133993	2164	133999	2163	<b>134033</b>	<b>2156</b>
134039	2155	134047	2156	134053	2160	134059	2169	134077	2158	134081	2164
134087	2161	134089	2153	134093	2162	134129	2164	134153	2165	134161	2161
134171	2161	134177	2159	134191	2162	134207	2168	134213	2161	134219	2165
134227	2166	134243	2165	134257	2160	134263	2162	134269	2165	134287	2159
134291	2164	134293	2162	134327	2165	134333	2165	134339	2164	134341	2163
134353	2164	134359	2166	134363	2172	134369	2166	134371	2166	134399	2165

**Table 5.** Continue 14

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
134401	2165	134417	2162	134437	2172	134443	2160	134471	2166	134489	2168
134503	2165	134507	2169	134513	2165	134581	2166	134587	2167	134591	2158
134593	2171	134597	2164	134609	2166	134639	2163	134669	2167	134677	2168
134681	2169	134683	2169	134699	2163	134707	2169	134731	2166	134741	2168
134753	2170	134777	2165	134789	2168	134807	2166	134837	2168	134839	2170
134851	2168	134857	2167	134867	2163	134873	2171	134887	2170	134909	2165
134917	2165	134921	2170	134923	2166	134947	2166	134951	2168	134989	2171
134999	2174	<b>135007</b>	<b>2168</b>	135017	2167	135019	2167	135029	2169	135043	2173
135049	2172	135059	2168	135077	2173	135089	2168	135101	2174	135119	2165
135131	2169	135151	2170	135173	2172	135181	2173	135193	2171	135197	2173
135209	2175	135211	2172	135221	2171	135241	2169	135257	2171	135271	2177
135277	2171	135281	2172	135283	2173	135301	2174	135319	2170	135329	2173
135347	2169	135349	2174	135353	2176	135367	2167	135389	2172	135391	2165
135403	2170	135409	2172	135427	2177	135431	2171	135433	2174	135449	2180
135461	2169	135463	2169	135467	2167	135469	2168	135479	2171	135497	2171
135511	2175	135533	2176	135559	2171	135571	2178	135581	2177	135589	2172
135593	2181	135599	2174	135601	2172	135607	2173	135613	2179	135617	2172
135623	2179	135637	2176	135647	2177	135649	2172	135661	2177	135671	2179
135697	2176	135701	2177	135719	2172	135721	2175	135727	2176	135731	2176
135743	2173	135757	2172	135781	2168	135787	2184	135799	2173	135829	2175
135841	2179	135851	2176	135859	2175	135887	2177	135893	2174	135899	2178
135911	2180	135913	2173	135929	2181	135937	2184	135977	2182	135979	2179
<b>136013</b>	<b>2181</b>	136027	2180	136033	2177	136043	2180	136057	2174	136067	2178
136069	2178	136093	2180	136099	2172	136111	2182	136133	2182	136139	2174
136163	2183	136177	2171	136189	2180	136193	2183	136207	2181	136217	2181
136223	2184	136237	2182	136247	2183	136261	2182	136273	2179	136277	2183
136303	2175	136309	2178	136319	2180	136327	2191	136333	2180	136337	2179
136343	2182	136351	2179	136361	2177	136373	2172	136379	2183	136393	2186
136397	2180	136399	2180	136403	2182	136417	2188	136421	2180	136429	2180
136447	2183	136453	2181	136463	2190	136471	2181	136481	2184	136483	2185
136501	2186	136511	2184	136519	2182	136523	2186	136531	2180	136537	2185
136541	2186	136547	2185	136559	2182	136573	2185	136601	2181	136603	2180
136607	2184	136621	2182	136649	2185	136651	2181	136657	2187	136691	2181
136693	2184	136709	2183	136711	2184	136727	2181	136733	2186	136739	2187
136751	2181	136753	2185	136769	2187	136777	2184	136811	2183	136813	2192

**Table 5.** Continue 15

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
136841	2187	136849	2186	136859	2187	136861	2184	136879	2186	136883	2188
136889	2184	136897	2191	136943	2193	136949	2178	136951	2191	136963	2182
136973	2188	136979	2185	136987	2183	136991	2193	136993	2194	136999	2189
137029	2185	137077	2185	137087	2197	137089	2188	137117	2192	137119	2185
137131	2189	137143	2190	137147	2191	137153	2195	137177	2196	137183	2192
137191	2187	137197	2191	137201	2191	137209	2187	137219	2194	137239	2185
137251	2188	137273	2189	137279	2193	137303	2196	137321	2193	137339	2191
137341	2192	137353	2194	137359	2195	137363	2190	137369	2188	137383	2190
137387	2192	137393	2192	137399	2188	137413	2186	137437	2188	137443	2192
137447	2194	137453	2197	137477	2194	137483	2194	137491	2196	137507	2193
137519	2185	137537	2188	137567	2186	137573	2195	137587	2195	137593	2190
137597	2189	137623	2191	137633	2194	137639	2199	137653	2187	137659	2193
137699	2197	137707	2193	137713	2198	137723	2192	137737	2196	137743	2192
137771	2190	137777	2193	137791	2193	137803	2195	137827	2192	137831	2194
137849	2191	137867	2193	137869	2196	137873	2194	137909	2199	137911	2191
137927	2196	137933	2198	137941	2200	137947	2196	137957	2201	137983	2193
137993	2199	137999	2197	<b>138007</b>	<b>2193</b>	138041	2195	138053	2191	138059	2201
138071	2200	138077	2198	138079	2192	138101	2202	138107	2194	138113	2193
138139	2191	138143	2192	138157	2203	138163	2199	138179	2201	138181	2199
138191	2198	138197	2201	138209	2197	138239	2201	138241	2199	138247	2196
138251	2198	138283	2199	138289	2200	138311	2193	138319	2201	138323	2197
138337	2202	138349	2192	138371	2200	138373	2202	138389	2205	138401	2201
138403	2201	138407	2202	138427	2203	138433	2204	138449	2201	138451	2204
138461	2199	138469	2202	138493	2196	138497	2199	138511	2204	138517	2200
138547	2207	138559	2199	138563	2201	138569	2197	138571	2199	138577	2195
138581	2203	138587	2199	138599	2203	138617	2205	138629	2210	138637	2206
138641	2201	138647	2207	138661	2204	138679	2206	138683	2198	138727	2209
138731	2207	138739	2202	138763	2201	138793	2197	138797	2205	138799	2206
138821	2207	138829	2203	138841	2208	138863	2203	138869	2204	138883	2200
138889	2201	138893	2200	138899	2203	138917	2201	138923	2202	138937	2203
138959	2196	138967	2203	138977	2203	<b>139021</b>	<b>2208</b>	139033	2208	139067	2204
139079	2208	139091	2203	139109	2206	139121	2205	139123	2208	139133	2208
139169	2204	139177	2204	139187	2210	139199	2208	139201	2206	139241	2210
139267	2208	139273	2206	139291	2211	139297	2207	139301	2207	139303	2208
139309	2202	139313	2206	139333	2210	139339	2204	139343	2212	139361	2204

**Table 5.** Continue 16

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
139367	2208	139369	2205	139387	2209	139393	2215	139397	2203	139409	2202
139423	2205	139429	2211	139439	2206	139457	2213	139459	2207	139483	2209
139487	2216	139493	2216	139501	2209	139511	2215	139537	2201	139547	2201
139571	2205	139589	2212	139591	2209	139597	2206	139609	2212	139619	2216
139627	2205	139661	2214	139663	2217	139681	2210	139697	2213	139703	2212
139709	2209	139721	2209	139729	2208	139739	2209	139747	2206	139753	2213
139759	2210	139787	2203	139801	2207	139813	2210	139831	2205	139837	2208
139861	2219	139871	2214	139883	2211	139891	2212	139901	2212	139907	2208
139921	2209	139939	2208	139943	2204	139967	2216	139969	2214	139981	2218
139987	2215	139991	2212	139999	2210	140009	2210	140053	2211	140057	2213
140069	2215	140071	2217	140111	2215	140123	2211	140143	2207	140159	2214
140167	2218	140171	2209	140177	2210	140191	2217	140197	2216	140207	2213
140221	2215	140227	2214	140237	2218	140249	2223	140263	2213	140269	2213
140281	2216	140297	2221	140317	2205	140321	2216	140333	2210	140339	2211
140351	2216	140363	2213	140381	2220	140401	2221	140407	2219	140411	2215
140417	2217	140419	2220	140423	2211	140443	2220	140449	2222	140453	2217
140473	2221	140477	2216	<b>140521</b>	<b>2216</b>	140527	2220	140533	2216	140549	2220
140551	2222	140557	2215	140587	2218	140593	2216	140603	2218	140611	2219
140617	2221	140627	2223	140629	2214	140639	2215	140659	2221	140663	2227
140677	2212	140681	2222	140683	2215	140689	2219	140717	2222	140729	2218
140731	2219	140741	2220	140759	2221	140761	2219	140773	2219	140779	2223
140797	2219	140813	2220	140827	2214	140831	2220	140837	2223	140839	2224
140863	2217	140867	2222	140869	2220	140891	2217	140893	2225	140897	2222
140909	2219	140929	2217	140939	2216	140977	2220	140983	2222	140989	2219
<b>141023</b>	<b>2221</b>	141041	2221	141061	2227	141067	2223	141073	2219	141079	2223
141101	2215	141107	2226	141121	2219	141131	2218	141157	2223	141161	2222
141179	2230	141181	2229	141199	2225	141209	2221	141221	2225	141223	2221
141233	2227	141241	2232	141257	2224	141263	2215	141269	2218	141277	2225
141283	2221	141301	2224	141307	2224	141311	2221	141319	2225	141353	2227
141359	2224	141371	2225	141397	2224	141403	2229	141413	2224	141439	2225
141443	2227	141461	2219	141481	2230	141497	2231	141499	2227	141509	2232
141511	2231	141529	2225	141539	2227	141551	2230	141587	2225	141601	2223
141613	2230	141619	2233	141623	2227	141629	2227	141637	2227	141649	2235
141653	2230	141667	2225	141671	2230	141677	2221	141679	2230	141689	2226
141697	2222	141707	2230	141709	2227	141719	2234	141731	2234	141761	2232

**Table 5.** Continue 17

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
141767	2226	141769	2227	141773	2229	141793	2231	141803	2232	141811	2230
141829	2232	141833	2234	141851	2230	141853	2231	141863	2236	141871	2231
141907	2224	141917	2229	141931	2233	141937	2238	141941	2232	141959	2233
141961	2234	141971	2227	141991	2226	<b>142007</b>	<b>2227</b>	142019	2228	142031	2233
142039	2232	142049	2235	142057	2232	142061	2230	142067	2234	142097	2232
142099	2239	142111	2237	142123	2232	142151	2223	142157	2233	142159	2233
142169	2236	142183	2235	142189	2234	142193	2239	142211	2238	142217	2233
142223	2230	142231	2236	142237	2232	142271	2241	142297	2232	142319	2231
142327	2230	142357	2232	142369	2235	142381	2239	142391	2239	142403	2234
142421	2235	142427	2237	142433	2235	142453	2236	142469	2233	142501	2240
142529	2233	142537	2235	142543	2234	142547	2236	142553	2235	142559	2236
142567	2234	142573	2234	142589	2238	142591	2234	142601	2236	142607	2236
142609	2231	142619	2233	142657	2238	142673	2238	142697	2239	142699	2231
142711	2241	142733	2237	142757	2230	142759	2237	142771	2236	142787	2233
142789	2243	142799	2230	142811	2236	142837	2239	142841	2239	142867	2241
142871	2232	142873	2240	142897	2235	142903	2242	142907	2237	142939	2234
142949	2243	142963	2235	142969	2240	142973	2236	142979	2240	142981	2239
142993	2237	<b>143053</b>	<b>2243</b>	143063	2240	143093	2233	143107	2235	143111	2239
143113	2240	143137	2240	143141	2238	143159	2242	143177	2240	143197	2236
143239	2241	143243	2239	143249	2245	143257	2237	143261	2239	143263	2241
143281	2240	143287	2236	143291	2244	143329	2244	143333	2243	143357	2243
143387	2241	143401	2244	143413	2238	143419	2242	143443	2243	143461	2240
143467	2244	143477	2243	143483	2243	143489	2238	143501	2245	143503	2242
143509	2241	143513	2241	143519	2242	143527	2242	143537	2245	143551	2243
143567	2241	143569	2245	143573	2235	143593	2243	143609	2245	143617	2243
143629	2252	143651	2243	143653	2246	143669	2243	143677	2244	143687	2246
143699	2244	143711	2243	143719	2246	143729	2245	143743	2246	143779	2245
143791	2243	143797	2240	143807	2244	143813	2245	143821	2240	143827	2254
143831	2242	143833	2250	143873	2238	143879	2247	143881	2243	143909	2245
143947	2255	143953	2246	143971	2244	143977	2241	143981	2246	143999	2247
<b>144013</b>	<b>2252</b>	144031	2251	144037	2243	144061	2252	144071	2247	144073	2255
144103	2257	144139	2241	144161	2251	144163	2251	144167	2244	144169	2249
144173	2249	144203	2254	144223	2248	144241	2251	144247	2258	144253	2250
144259	2251	144271	2251	144289	2251	144299	2247	144307	2253	144311	2250
144323	2250	144341	2252	144349	2250	144379	2247	144383	2253	144407	2256

**Table 5.** Continue 18

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
144409	2255	144413	2248	144427	2247	144439	2253	144451	2247	144461	2256
144479	2252	144481	2250	144497	2247	144511	2255	144539	2250	144541	2245
144563	2249	144569	2254	144577	2250	144583	2252	144589	2252	144593	2255
144611	2255	144629	2256	144659	2258	144667	2256	144671	2244	144701	2257
144709	2255	144719	2250	144731	2253	144737	2253	144751	2252	144757	2244
144763	2253	144773	2250	144779	2256	144791	2250	144817	2249	144829	2258
144839	2253	144847	2257	144883	2253	144887	2254	144889	2254	144899	2254
144917	2254	144931	2251	144941	2255	144961	2257	144967	2251	144973	2256
144983	2257	<b>145007</b>	<b>2255</b>	145009	2262	145021	2265	145031	2263	145037	2256
145043	2257	145063	2265	145069	2260	145091	2255	145109	2252	145121	2257
145133	2264	145139	2262	145177	2256	145193	2266	145207	2261	145213	2257
145219	2266	145253	2260	145259	2263	145267	2264	145283	2264	145289	2264
145303	2262	145307	2257	145349	2258	145361	2258	145381	2257	145391	2262
145399	2262	145417	2257	145423	2262	145433	2272	145441	2257	145451	2262
145459	2265	145463	2258	145471	2268	145477	2268	145487	2261	145501	2262
145511	2261	145513	2262	145517	2272	145531	2263	145543	2265	145547	2261
145549	2262	145577	2264	145589	2271	145601	2258	145603	2263	145633	2269
145637	2273	145643	2267	145661	2265	145679	2261	145681	2264	145687	2273
145703	2272	145709	2272	145721	2262	145723	2265	145753	2267	145757	2268
145759	2273	145771	2273	145777	2268	145799	2271	145807	2269	145819	2273
145823	2272	145829	2262	145861	2263	145879	2269	145897	2270	145903	2266
145931	2270	145933	2270	145949	2275	145963	2266	145967	2275	145969	2267
145987	2263	145991	2267	<b>146009</b>	<b>2262</b>	146011	2274	146021	2277	146023	2271
146033	2273	146051	2264	146057	2273	146059	2271	146063	2274	146077	2271
146093	2276	146099	2266	146117	2267	146141	2278	146161	2278	146173	2265
146191	2268	146197	2273	146203	2267	146213	2274	146221	2272	146239	2270
146249	2277	146273	2275	146291	2269	146297	2277	146299	2272	146309	2274
146317	2278	146323	2269	146347	2270	146359	2275	146369	2276	146381	2272
146383	2274	146389	2270	146407	2272	146417	2271	146423	2281	146437	2274
146449	2270	146477	2270	146513	2272	146519	2273	146521	2275	146527	2280
146539	2266	146543	2269	146563	2277	146581	2272	146603	2275	146609	2277
146617	2276	146639	2271	146647	2268	146669	2269	146677	2269	146681	2268
146683	2269	146701	2277	146719	2277	146743	2279	146749	2275	146767	2270
146777	2272	146801	2270	146807	2279	146819	2279	146833	2280	146837	2267
146843	2271	146849	2277	146857	2284	146891	2277	146893	2275	146917	2276

**Table 5.** Continue 19

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
146921	2276	146933	2275	146941	2277	146953	2276	146977	2272	146983	2280
146987	2280	146989	2276	147011	2281	147029	2280	147031	2278	147047	2272
147073	2274	147083	2279	147089	2272	147097	2272	147107	2278	147137	2281
147139	2285	147151	2286	147163	2279	147179	2286	147197	2276	147209	2281
147211	2281	147221	2283	147227	2278	147229	2287	147253	2278	147263	2280
147283	2279	147289	2279	147293	2280	147299	2284	147311	2278	147319	2273
147331	2282	147341	2278	147347	2287	147353	2277	147377	2270	147391	2276
147397	2284	147401	2276	147409	2280	147419	2273	147449	2282	147451	2280
147457	2281	147481	2283	147487	2283	147503	2283	147517	2275	147541	2280
147547	2278	147551	2276	147557	2282	147571	2281	147583	2279	147607	2291
147613	2279	147617	2275	147629	2291	147647	2284	147661	2285	147671	2279
147673	2287	147689	2282	147703	2284	147709	2287	147727	2282	147739	2281
147743	2286	147761	2281	147769	2278	147773	2281	147779	2285	147787	2286
147793	2281	147799	2275	147811	2281	147827	2289	147853	2282	147859	2282
147863	2285	147881	2291	147919	2280	147937	2276	147949	2287	147977	2287
147997	2283	<b>148013</b>	<b>2286</b>	148021	2280	148061	2292	148063	2286	148073	2288
148079	2276	148091	2288	148123	2291	148139	2284	148147	2286	148151	2286
148153	2283	148157	2278	148171	2280	148193	2287	148199	2285	148201	2289
148207	2282	148229	2286	148243	2283	148249	2277	148279	2282	148301	2286
148303	2284	148331	2292	148339	2292	148361	2285	148367	2288	148381	2287
148387	2293	148399	2286	148403	2286	148411	2285	148429	2288	148439	2286
148457	2289	148469	2285	148471	2291	148483	2291	148501	2284	148513	2283
148517	2291	148531	2286	148537	2290	148549	2286	148573	2295	148579	2280
148609	2282	148627	2287	148633	2293	148639	2291	148663	2282	148667	2298
148669	2289	148691	2294	148693	2294	148711	2287	148721	2297	148723	2292
148727	2296	148747	2283	148763	2286	148781	2293	148783	2296	148793	2291
148817	2289	148829	2292	148853	2289	148859	2290	148861	2292	148867	2298
148873	2295	148891	2290	148913	2291	148921	2294	148927	2285	148931	2298
148933	2290	148949	2285	148957	2292	148961	2286	148991	2293	148997	2294
<b>149011</b>	<b>2289</b>	149021	2296	149027	2296	149033	2294	149053	2289	149057	2290
149059	2294	149069	2296	149077	2292	149087	2291	149099	2291	149101	2292
149111	2293	149113	2294	149119	2296	149143	2293	149153	2289	149159	2291
149161	2295	149173	2296	149183	2291	149197	2288	149213	2293	149239	2297
149249	2296	149251	2290	149257	2301	149269	2297	149287	2296	149297	2299
149309	2297	149323	2287	149333	2292	149341	2297	149351	2294	149371	2301

**Table 5.** Continue 20

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
149377	2303	149381	2294	149393	2294	149399	2289	149411	2298	149417	2298
149419	2296	149423	2294	149441	2299	149459	2289	149489	2298	149491	2294
149497	2297	149503	2295	149519	2294	149521	2302	149531	2302	149533	2294
149543	2300	149551	2301	149561	2300	149563	2294	149579	2300	149603	2298
149623	2296	149627	2301	149629	2306	149689	2296	149711	2300	149713	2299
149717	2296	149729	2298	149731	2297	149749	2304	149759	2292	149767	2299
149771	2303	149791	2299	149803	2297	149827	2296	149837	2295	149839	2304
149861	2301	149867	2300	149873	2298	149893	2305	149899	2301	149909	2305
149911	2299	149921	2306	149939	2297	149953	2299	149969	2305	149971	2302
149993	2291										



**Table 6.** The smallest known sizes  $\bar{t}_2 = \bar{t}_2(2, q)$  of complete arcs in planes  $\text{PG}(2, q)$ ,  $q = 150001$  and 40 sporadic prime  $q$ 's in the interval  $[150503...410009]$ \*\*

$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$	$q$	$\bar{t}_2$
<b>150001</b>	<b>2298</b>	150503	2319	151007	2324	152003	2331	153001	2332	154001	2340
155003	2355	156007	2363	157007	2367	158003	2383	159013	2387	160001	2397
161009	2407	162007	2412	163003	2423	164011	2429	165001	2439	166013	2448
<b>167009</b>	<b>2455</b>	168013	2463	<b>169003</b>	<b>2472</b>	<b>170503</b>	<b>2481</b>	180001	2555	185021	2591
<b>190027</b>	<b>2635</b>	<b>200003</b>	<b>2711</b>	210011	2780	<b>250007</b>	<b>3065</b>	260003	3129	270001	3188
280001	3262	<b>290011</b>	<b>3325</b>	300007	3384	330017	3571	350003	3685	360007	3740
<b>370003</b>	<b>3767</b>	<b>380041</b>	<b>3819</b>	<b>390001</b>	<b>3883</b>	<b>400009</b>	<b>3937</b>	<b>410009</b>	<b>4000</b>		

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\*\*New sizes and sizes smaller than in [5] are written in **bold font**