

## CLASSIFICATION OF $n$ WITH $d(n) \leq 22d(2)$

Notes on this table:

- Each entry is multiplied by an implicit  $3^k$ ;  $k$  will always refer to this  $k$ .
- If the base entry is divisible by 3, instead its not-divisible-by-3-part will be listed with a restriction on  $k$ , and base  $f$  adjusted appropriately.
- To find  $f$ , take the “base  $f$ ” listed and add three times the sum of all the variables used (including the implicit  $k$ ).
- Only approximations for  $d$  are listed (rounded to the nearest to 5 decimal places), as the exact values are easy enough to deduce. For families, just the infimum (minimum) and supremum are listed – again, approximated, exact values are easy enough.
- The number 1 gets a special listing in the  $f \bmod 3$  listing because  $g(1)$  doesn’t follow the general pattern for  $g(3n + 1)$ .
- This table is written to avoid redundancy; 4 is not listed, for instance, because it is just a special case of  $3^n + 1$ . Though there is a preference for things not divisible by 3;  $3^k$  for  $k \geq 1$  may technically be a special case of  $(2 \cdot 3^n + 1)3^k$ , but the former will be listed anyway.
- A number in parentheses in the “restrictions” column means allowing this is valid but redundant, and not counted in the “min  $d$ ” and “min  $D$ ” columns. Note, however, that not all redundancy will be eliminated, because sometimes there’s no natural way to choose.
- In one or two cases, the restrictions were too long to list succinctly; in these cases, they’re referenced and listed separately at the bottom.

Form	Restrictions	Base $f$	min $d$	sup $d$	$f \bmod 3$	min $D$	max $D$
1	$k \geq 1$	0	0.00000	0.00000	0	<b>0</b>	<b>0</b>
2		2	0.10721	0.10721	2	<b>0</b>	<b>0</b>
1	$k = 0$	1	1.00000	1.00000	1*	<b>0</b>	<b>0</b>
32768		30	1.60816	1.60816	0	1	1
$64(3^n + 1)$	$n \geq 1$	13	0.85769	1.64326	1	0	1
$32(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	13	1.22232	1.64326	1	1	1
$16(4 \cdot 3^n + 1)$		13	1.03392	1.64326	1	1	1
$8(8 \cdot 3^n + 1)$	$n \geq 1$	13	1.53179	1.64326	1	1	1
$4(16 \cdot 3^n + 1)$		13	1.47772	1.64326	1	1	1
$2(32 \cdot 3^n + 1)$	$n \geq 1$ (0)	13	1.61497	1.64326	1	1	1
$64 \cdot 3^n + 1$		13	1.60093	1.64326	1	1	1
65536		32	1.71537	1.71537	2	1	1
$128(3^n + 1)$	$n \geq 1$	15	0.96490	1.75048	0	0	1
$64(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	15	1.32953	1.75048	0	1	1
$32(4 \cdot 3^n + 1)$		15	1.14113	1.75048	0	1	1
$16(8 \cdot 3^n + 1)$	$n \geq 1$	15	1.63900	1.75048	0	1	1
$8(16 \cdot 3^n + 1)$		15	1.58493	1.75048	0	1	1
$4(32 \cdot 3^n + 1)$	$n \geq 1$ (0)	15	1.72218	1.75048	0	1	1

$2(64 \cdot 3^n + 1)$		15	1.70814	1.75048	0	1	1
$128 \cdot 3^n + 1$	$n \geq 1$ (0)	15	1.74337	1.75048	0	1	1
$5(4 \cdot 3^n + 1)$		10	1.21016	1.81950	1	1	1
$4(5 \cdot 3^n + 1)$	$n \geq 2$	10	1.75948	1.81950	1	1	1
131072		34	1.82258	1.82258	1	1	1
$256(3^n + 1)$	$n \geq 1$	17	1.07211	1.85769	2	0	1
$128(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	17	1.43674	1.85769	2	1	1
$64(4 \cdot 3^n + 1)$		17	1.24835	1.85769	2	1	1
$32(8 \cdot 3^n + 1)$	$n \geq 1$	17	1.74621	1.85769	2	1	1
$16(16 \cdot 3^n + 1)$		17	1.69214	1.85769	2	1	1
$8(32 \cdot 3^n + 1)$	$n \geq 1$ (0)	17	1.82939	1.85769	2	1	1
$4(64 \cdot 3^n + 1)$		17	1.81535	1.85769	2	1	1
$2(128 \cdot 3^n + 1)$	$n \geq 1$ (0)	17	1.85058	1.85769	2	1	1
$256 \cdot 3^n + 1$		17	1.84604	1.85769	2	1	1
$8(5 \cdot 3^n + 1)$	$n \geq 2$	12	1.86669	1.92671	0	1	1
$5(8 \cdot 3^n + 1)$	$n \geq 1$	12	1.81524	1.92671	0	1	1
262144		36	1.92979	1.92979	0	1	1
$512(3^n + 1)$	$n \geq 1$	19	1.17932	1.96490	1	1	1
$256(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	19	1.54395	1.96490	1	1	1
$128(4 \cdot 3^n + 1)$		19	1.35555	1.96490	1	1	1
$64(8 \cdot 3^n + 1)$	$n \geq 1$	19	1.85342	1.96490	1	1	1
$32(16 \cdot 3^n + 1)$		19	1.79935	1.96490	1	1	1
$16(32 \cdot 3^n + 1)$	$n \geq 1$ (0)	19	1.93660	1.96490	1	1	1
$8(64 \cdot 3^n + 1)$		19	1.92256	1.96490	1	1	1
$4(128 \cdot 3^n + 1)$	$n \geq 1$ (0)	19	1.95779	1.96490	1	1	1
$2(256 \cdot 3^n + 1)$		19	1.95425	1.96490	1	1	1
$512 \cdot 3^n + 1$	$n \geq 1$	19	1.96312	1.96490	1	1	1
$(3^n + 1)(3^m + 1)$	$n, m \geq 1$	2	0.42884	2.00000	2	0	1
$(3^n + 1)3^m + 1$	$n \geq 1$	2	0.60508	2.00000	2	0	1
$14(4 \cdot 3^n + 1)$		13	1.39856	2.00790	1	1	1
$8(7 \cdot 3^n + 1)$	$n \neq 0, 2$	13	1.88087	2.00790	1	1	1
$7(8 \cdot 3^n + 1)$	$n \geq 1$	13	1.89643	2.00790	1	1	1
$4(14 \cdot 3^n + 1)$	$n \geq 1$	13	1.94365	2.00790	1	1	1
$16(5 \cdot 3^n + 1)$	$n \geq 2$	14	1.97390	2.03392	2	1	2
$5(16 \cdot 3^n + 1)$		14	1.86837	2.03392	2	1	2
524288		38	2.03700	2.03700	2	2	2
$1024(3^n + 1)$	$n \geq 1$	21	1.28653	2.07211	0	1	1
$512(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	21	1.65117	2.07211	0	1	1
$256(4 \cdot 3^n + 1)$		21	1.46277	2.07211	0	1	1
$128(8 \cdot 3^n + 1)$	$n \geq 1$	21	1.96063	2.07211	0	1	1
$64(16 \cdot 3^n + 1)$		21	1.90656	2.07211	0	1	1
$32(32 \cdot 3^n + 1)$	$n \geq 1$ (0)	21	2.04381	2.07211	0	1	1
$16(64 \cdot 3^n + 1)$		21	2.02977	2.07211	0	1	1
$8(128 \cdot 3^n + 1)$	$n \geq 1$ (0)	21	2.06501	2.07211	0	1	1
$4(256 \cdot 3^n + 1)$		21	2.06146	2.07211	0	1	1
$2(512 \cdot 3^n + 1)$	$n \geq 1$	21	2.07033	2.07211	0	1	1
$1024 \cdot 3^n + 1$		21	2.06944	2.07211	0	1	1
81920		33	2.10603	2.10603	0	1	1

$2(3^n + 1)(3^m + 1)$	$n, m \geq 1$	4	0.53605	2.10721	1	0	1
$(3^n + 1)(2 \cdot 3^m + 1)$	$n \geq 1, m \geq 1$ (0)	4	0.90069	2.10721	1	0	1
$2((3^n + 1)3^m + 1)$	$n \geq 1$	4	0.71229	2.10721	1	0	1
$2(3^n + 1)3^m + 1$	$n, m \geq 1$	4	1.21016	2.10721	1	1	1
$(2 \cdot 3^n + 1)3^m + 1$	See (0.1)	4	1.55924	2.10721	1	1	1
$16(7 \cdot 3^n + 1)$	$n \neq 0, 2$	15	1.98808	2.11511	0	1	1
$14(8 \cdot 3^n + 1)$	$n \geq 1$	15	2.00364	2.11511	0	1	1
$8(14 \cdot 3^n + 1)$	$n \geq 1$	15	2.05086	2.11511	0	1	1
$7(16 \cdot 3^n + 1)$		15	1.94956	2.11511	0	1	1
$160(3^n + 1)$	$n \geq 1$	16	1.35555	2.14113	1	1	2
$80(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	16	1.72019	2.14113	1	1	2
$40(4 \cdot 3^n + 1)$		16	1.53179	2.14113	1	1	2
$32(5 \cdot 3^n + 1)$	$n \geq 2$	16	2.08111	2.14113	1	1	2
$20(8 \cdot 3^n + 1)$	$n \neq 0, 2$	16	2.02966	2.14113	1	1	2
$16(10 \cdot 3^n + 1)$		16	1.88087	2.14113	1	1	2
$10(16 \cdot 3^n + 1)$		16	1.97558	2.14113	1	1	2
$8(20 \cdot 3^n + 1)$	$n \geq 2$	16	2.12600	2.14113	1	2	2
$5(32 \cdot 3^n + 1)$	$n \geq 1$	16	2.11284	2.14113	1	2	2
$4(40 \cdot 3^n + 1)$	$n \geq 1$	16	2.11847	2.14113	1	2	2
$2(80 \cdot 3^n + 1)$	$n \geq 1$	16	2.12978	2.14113	1	2	2
$160 \cdot 3^n + 1$		16	2.12412	2.14113	1	2	2
1048576		40	2.14421	2.14421	1	2	2
26624		30	2.17517	2.17517	0	2	2
683	$k \geq 1$	20	2.17799	2.17799	2	2	2
$2048(3^n + 1)$	$n \geq 1$	23	1.39374	2.17932	2	1	2
$1024(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	23	1.75837	2.17932	2	1	2
$512(4 \cdot 3^n + 1)$		23	1.56998	2.17932	2	1	2
$256(8 \cdot 3^n + 1)$	$n \geq 1$	23	2.06784	2.17932	2	2	2
$128(16 \cdot 3^n + 1)$		23	2.01377	2.17932	2	2	2
$64(32 \cdot 3^n + 1)$	$n \geq 1$ (0)	23	2.15102	2.17932	2	2	2
$32(64 \cdot 3^n + 1)$		23	2.13698	2.17932	2	2	2
$16(128 \cdot 3^n + 1)$	$n \geq 1$ (0)	23	2.17222	2.17932	2	2	2
$8(256 \cdot 3^n + 1)$		23	2.16867	2.17932	2	2	2
$4(512 \cdot 3^n + 1)$	$n \geq 1$	23	2.17754	2.17932	2	2	2
$2(1024 \cdot 3^n + 1)$		23	2.17665	2.17932	2	2	2
$2048 \cdot 3^n + 1$	$n \geq 1$ (0)	23	2.17887	2.17932	2	2	2
$5(5 \cdot 3^n + 1)$	$n \geq 2$	11	2.15014	2.21016	2	2	2
$52(3^n + 1)$	$n \geq 1$	13	1.42469	2.21027	1	1	2
$26(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	13	1.78933	2.21027	1	1	2
$13(4 \cdot 3^n + 1)$		13	1.60093	2.21027	1	1	2
$4(13 \cdot 3^n + 1)$	$n \geq 2$	13	2.18703	2.21027	1	2	2
$2(26 \cdot 3^n + 1)$	$n \geq 1$	13	2.17548	2.21027	1	2	2
$52 \cdot 3^n + 1$		13	2.15825	2.21027	1	2	2
163840		35	2.21324	2.21324	2	2	2
$4(3^n + 1)(3^m + 1)$	$n, m \geq 1$	6	0.64326	2.21442	0	0	1
$2(3^n + 1)(2 \cdot 3^m + 1)$	$n \geq 1, m \geq 1$ (0)	6	1.00790	2.21442	0	0	1
$(3^n + 1)(4 \cdot 3^m + 1)$	$n \geq 1$	6	0.81950	2.21442	0	0	1
$(2 \cdot 3^n + 1)(2 \cdot 3^m + 1)$	$n, m \geq 1$ (0)	6	1.31737	2.21442	0	1	1

$4((3^n + 1)3^m + 1)$	$n \geq 1$	6	0.81950	2.21442	0	0	1
$2(2(3^n + 1)3^m + 1)$	$n, m \geq 1$	6	1.31737	2.21442	0	1	1
$4(3^n + 1)3^m + 1$	$n, m \geq 1$	6	1.37254	2.21442	0	1	1
$2((2 \cdot 3^n + 1)3^m + 1)$	See (0.1)	6	1.66645	2.21442	0	1	1
$2(2 \cdot 3^n + 1)3^m + 1$	$n \geq 1 (0), m \geq 1$	6	1.72922	2.21442	0	1	1
$(4 \cdot 3^n + 1)3^m + 1$	$m \geq 2$	6	1.54506	2.21442	0	1	1
$32(7 \cdot 3^n + 1)$	$n \neq 0, 2$	17	2.09529	2.22232	2	2	2
$16(14 \cdot 3^n + 1)$	$n \geq 1$	17	2.15807	2.22232	2	2	2
$14(16 \cdot 3^n + 1)$		17	2.05677	2.22232	2	2	2
$7(32 \cdot 3^n + 1)$	$n \geq 1 (0)$	17	2.19402	2.22232	2	2	2
323		18	2.22286	2.22286	0	2	2
107	$k \geq 1$	15	2.33982	2.33982	0	2	2
$320(3^n + 1)$	$n \geq 1$	18	1.46277	2.24834	0	1	2
$160(2 \cdot 3^n + 1)$	$n \geq 1 (0)$	18	1.82740	2.24834	0	1	2
$80(4 \cdot 3^n + 1)$		18	1.63900	2.24834	0	1	2
$64(5 \cdot 3^n + 1)$	$n \geq 2$	18	2.18833	2.24834	0	1	2
$40(8 \cdot 3^n + 1)$	$n \neq 0, 2$	18	2.13687	2.24834	0	1	2
$32(10 \cdot 3^n + 1)$		18	1.98808	2.24834	0	1	2
$20(16 \cdot 3^n + 1)$		18	2.08280	2.24834	0	1	2
$16(20 \cdot 3^n + 1)$	$n \geq 2$	18	2.23322	2.24834	0	2	2
$10(32 \cdot 3^n + 1)$	$n \geq 1$	18	2.22005	2.24834	0	2	2
$8(40 \cdot 3^n + 1)$	$n \geq 1$	18	2.22568	2.24834	0	2	2
$5(64 \cdot 3^n + 1)$	$n \geq 1$	18	2.23416	2.24834	0	2	2
$4(80 \cdot 3^n + 1)$	$n \geq 1$	18	2.23699	2.24834	0	2	2
$2(160 \cdot 3^n + 1)$		18	2.23133	2.24834	0	2	2
$320 \cdot 3^n + 1$	$n \geq 1 (0)$	18	2.24550	2.24834	0	2	2
665		20	2.25092	2.25092	2	2	2
2097152		42	2.25143	2.25143	0	2	2
$17(3^n + 1)$	$n \geq 1$	10	1.47772	2.25329	1	1	2
$17 \cdot 3^n + 1$	$n \geq 2$	10	2.24550	2.25329	1	2	2
$152(3^n + 1)$	$n \geq 1$	16	1.49562	2.28120	1	1	2
$76(2 \cdot 3^n + 1)$	$n \geq 1 (0)$	16	1.86026	2.28120	1	1	2
$38(4 \cdot 3^n + 1)$		16	1.67186	2.28120	1	1	2
$19(8 \cdot 3^n + 1)$	$n \geq 1$	16	2.16973	2.28120	1	2	2
$8(19 \cdot 3^n + 1)$	$n \geq 1$	16	2.23371	2.28120	1	2	2
$4(38 \cdot 3^n + 1)$	$n \geq 1$	16	2.25735	2.28120	1	2	2
$2(76 \cdot 3^n + 1)$		16	2.24550	2.28120	1	2	2
$152 \cdot 3^n + 1$	$n \geq 1$	16	2.27522	2.28120	1	2	2
25600		30	2.28227	2.28227	0	2	2
53428		32	2.28238	2.28238	2	2	2
$4(38 \cdot 3^n + 1)$	$n \geq 1$	16	2.25735	2.28120	1	2	2
$4(38 \cdot 3^n + 1)$	$n \geq 1$	16	2.25735	2.28120	1	2	2
1366	$k \geq 1$	22	2.28520	2.28520	1	2	2
$4096(3^n + 1)$	$n \geq 1$	25	1.50095	2.28653	1	1	2
$2048(2 \cdot 3^n + 1)$	$n \geq 1 (0)$	25	1.86559	2.28653	1	1	2
$1024(4 \cdot 3^n + 1)$		25	1.67719	2.28653	1	1	2
$512(8 \cdot 3^n + 1)$	$n \geq 1$	25	2.17506	2.28653	1	2	2
$256(16 \cdot 3^n + 1)$		25	2.12098	2.28653	1	2	2

$128(32 \cdot 3^n + 1)$	$n \geq 1$ (0)	25	2.25823	2.28653	1	2	2
$64(64 \cdot 3^n + 1)$		25	2.24419	2.28653	1	2	2
$32(128 \cdot 3^n + 1)$	$n \geq 1$ (0)	25	2.27943	2.28653	1	2	2
$16(256 \cdot 3^n + 1)$		25	2.27588	2.28653	1	2	2
$8(512 \cdot 3^n + 1)$	$n \geq 1$	25	2.28475	2.28653	1	2	2
$4(1024 \cdot 3^n + 1)$		25	2.28386	2.28653	1	2	2
$2(2048 \cdot 3^n + 1)$	$n \geq 1$ (0)	25	2.28608	2.28653	1	2	2
$4096 \cdot 3^n + 1$		25	2.28586	2.28653	1	2	2
$35(3^n + 1)$	$n \geq 1$	12	1.50577	2.29135	0	1	2
$7(5 \cdot 3^n + 1)$	$n \geq 2$	12	2.23133	2.29135	0	2	2
$5(7 \cdot 3^n + 1)$	$n \geq 3$	12	2.27694	2.29135	0	2	2
$35 \cdot 3^n + 1$	$n \geq 1$	12	2.26546	2.29135	0	2	2
229376		36	2.29443	2.29443	0	2	2
$50(3^n + 1)$	$n \geq 1$	13	1.53179	2.31737	1	1	2
$25(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	13	1.89643	2.31737	1	1	2
$10(5 \cdot 3^n + 1)$	$n \geq 2$	13	2.25735	2.31737	1	2	2
$5(10 \cdot 3^n + 1)$	$n \geq 1$	13	2.22783	2.31737	1	2	2
$2(25 \cdot 3^n + 1)$	$n \geq 2$	13	2.30526	2.31737	1	2	2
$50 \cdot 3^n + 1$	$n \geq 1$	13	2.29923	2.31737	1	2	2
$104(3^n + 1)$	$n \geq 1$	15	1.53190	2.31748	0	1	2
$52(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	15	1.89654	2.31748	0	1	2
$26(4 \cdot 3^n + 1)$		15	1.70814	2.31748	0	1	2
$13(8 \cdot 3^n + 1)$	$n \geq 2$	15	2.27981	2.31748	0	2	2
$8(13 \cdot 3^n + 1)$	$n \geq 2$	15	2.29424	2.31748	0	2	2
$4(26 \cdot 3^n + 1)$	$n \geq 1$	15	2.28269	2.31748	0	2	2
$2(52 \cdot 3^n + 1)$		15	2.26546	2.31748	0	2	2
$104 \cdot 3^n + 1$	$n \geq 1$	15	2.30874	2.31748	0	2	2
75776		33	2.31892	2.31892	0	2	2
935		21	2.32040	2.32040	0	2	2
$8(3^n + 1)(3^m + 1)$	$n, m \geq 1$	8	0.75048	2.32163	2	0	2
$4(3^n + 1)(2 \cdot 3^m + 1)$	$n \geq 1, m \geq 1$ (0)	8	1.11511	2.32163	2	0	2
$2(3^n + 1)(4 \cdot 3^m + 1)$	$n \geq 1$	8	0.92671	2.32163	2	0	2
$2(2 \cdot 3^n + 1)(2 \cdot 3^m + 1)$	$n, m \geq 1$ (0)	8	1.47975	2.32163	2	1	2
$(3^n + 1)(8 \cdot 3^m + 1)$	See (0.2)	8	1.42458	2.32163	2	1	2
$(2 \cdot 3^n + 1)(4 \cdot 3^m + 1)$	$n \geq 1$ (0)	8	1.29135	2.32163	2	1	2
$8((3^n + 1)3^m + 1)$	$n \geq 1$	8	0.92671	2.32163	2	0	2
$4(2(3^n + 1)3^m + 1)$	See (0.3)	8	1.42458	2.32163	2	1	2
$2(4(3^n + 1)3^m + 1)$	See (0.4)	8	1.37050	2.32163	2	1	2
$8(3^n + 1)3^m + 1$	See (0.5)	8	1.45202	2.32163	2	1	2
$4((2 \cdot 3^n + 1)3^m + 1)$	See (0.1)	8	1.77366	2.32163	2	1	2
$2(2(2 \cdot 3^n + 1)3^m + 1)$	See (0.6)	8	1.83644	2.32163	2	1	2
$4(2 \cdot 3^n + 1)3^m + 1$	$n \geq 1$ (0)	8	1.80487	2.32163	2	1	2
$2((4 \cdot 3^n + 1)3^m + 1)$	$m \geq 1$	8	1.53605	2.32163	2	1	2
$2(4 \cdot 3^n + 1)3^m + 1$	See (0.7)	8	1.45202	2.32163	2	1	2
$(8 \cdot 3^n + 1)3^m + 1$	$n \geq 1, m \geq 2$	8	2.19805	2.32163	2	2	2
2800		24	2.32527	2.32527	0	2	2
$448(3^n + 1)$	$n \geq 1$	19	1.54395	2.32953	1	1	2
$224(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	19	1.90859	2.32953	1	1	2

$112(4 \cdot 3^n + 1)$		19	1.72019	2.32953	1	1	2
$64(7 \cdot 3^n + 1)$	$n \neq 0, 2$	19	2.20250	2.32953	1	2	2
$56(8 \cdot 3^n + 1)$	$n \geq 1$	19	2.21806	2.32953	1	2	2
$32(14 \cdot 3^n + 1)$	$n \geq 1$	19	2.26528	2.32953	1	2	2
$28(16 \cdot 3^n + 1)$		19	2.16398	2.32953	1	2	2
$16(28 \cdot 3^n + 1)$		19	2.23371	2.32953	1	2	2
$14(32 \cdot 3^n + 1)$	$n \geq 1$ (0)	19	2.30124	2.32953	1	2	2
$8(56 \cdot 3^n + 1)$	$n \geq 1$	19	2.31333	2.32953	1	2	2
$7(64 \cdot 3^n + 1)$		19	2.28720	2.32953	1	2	2
$4(112 \cdot 3^n + 1)$		19	2.30526	2.32953	1	2	2
$2(224 \cdot 3^n + 1)$	$n \geq 1$	19	2.32547	2.32953	1	2	2
$448 \cdot 3^n + 1$		19	2.32344	2.32953	1	2	2
646		20	2.33007	2.33007	2	2	2
931		21	2.33211	2.33211	0	2	2
215		17	2.33430	2.33430	2	2	2
310		18	2.33504	2.33504	0	2	2
2788		24	2.33700	2.33700	0	2	2
25088		30	2.33743	2.33743	0	2	2
8360		27	2.33831	2.33831	0	2	2
4018		25	2.33903	2.33903	1	2	2
928		21	2.34092	2.34092	0	2	2
4015		25	2.34107	2.34107	1	2	2
225280		36	2.34363	2.34363	0	2	2
103		15	2.34386	2.34386	0	2	2
36080		31	2.345323	2.34523	1	2	2
214	$k \geq 1$	17	2.34703	2.34703	2	2	2
925		21	2.34987	2.34987	0	2	2
2774		24	2.35075	2.35075	0	2	2
8320		27	2.35140	2.35140	0	2	2
308		18	2.35272	2.35272	0	2	2
2771		24	2.35370	2.35370	0	2	2
$148(3^n + 1)$	$n \geq 1$	16	1.56845	2.35042	1	1	2
$74(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	16	1.93308	2.35042	1	1	2
$37(4 \cdot 3^n + 1)$		16	1.74468	2.35042	1	1	2
$4(37 \cdot 3^n + 1)$	$n \geq 2$	16	2.34584	2.35042	1	2	2
$2(74 \cdot 3^n + 1)$	$n \geq 1$	16	2.34175	2.35042	1	2	2
$148 \cdot 3^n + 1$		16	2.33564	2.35042	1	2	2
24928		30	2.35491	2.35491	0	2	2
$640(3^n + 1)$	$n \geq 1$	20	1.56998	2.35555	2	1	2
$320(2 \cdot 3^n + 1)$	$n \geq 1$ (0)	20	1.93461	2.35555	2	1	2
$160(4 \cdot 3^n + 1)$		20	1.74621	2.35555	2	1	2
$128(5 \cdot 3^n + 1)$	$n \geq 2$	20	2.29554	2.35555	2	2	2
$80(8 \cdot 3^n + 1)$	$n \neq 0, 2$	20	2.24408	2.35555	2	2	2
$64(10 \cdot 3^n + 1)$		20	2.09529	2.35555	2	2	2
$32(20 \cdot 3^n + 1)$	$n \geq 2$	20	2.34043	2.35555	2	2	2
$20(32 \cdot 3^n + 1)$	$n \geq 1$	20	2.32726	2.35555	2	2	2
$16(40 \cdot 3^n + 1)$	$n \geq 1$	20	2.33289	2.35555	2	2	2
$10(64 \cdot 3^n + 1)$	$n \geq 1$	20	2.34137	2.35555	2	2	2

$8(80 \cdot 3^n + 1)$	$n \geq 1$	20	2.34420	2.35555	2	2	2
$5(128 \cdot 3^n + 1)$	$n \geq 1 (0)$	20	2.34845	2.35555	2	2	2
$4(160 \cdot 3^n + 1)$		20	2.33854	2.35555	2	2	2
$2(320 \cdot 3^n + 1)$	$n \geq 1 (0)$	20	2.35271	2.35555	2	2	2
$640 \cdot 3^n + 1$		20	2.35129	2.35555	2	2	2
74752		33	2.35607	2.35607	0	2	2
11972		28	2.35767	2.35767	1	2	2
1330		22	2.35813	2.35813	1	2	2
4194304		44	2.35863	2.35863	2	2	2

$$(0.1) \quad (n = 0) \quad \text{or} \quad m \geq 1, (n, m) \neq (1, 2)$$

$$(0.2) \quad n, m \geq 1, (n, m) \neq (2, 2)$$

$$(0.3) \quad n, m \geq 1, (n, m) \neq (2, 1)$$

$$(0.4) \quad n \geq 1, (n, m) \neq (2, 0)$$

$$(0.5) \quad n = 1 \quad \text{or} \quad n \geq 1, m \geq 1$$

$$(0.6) \quad (n = 0) \quad \text{or} \quad m \geq 1$$

$$(0.7) \quad n = 0 \quad \text{or} \quad m \geq 1$$