

List of Mersenne primes

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Mersenne primes M_p are generated by the formula $2^p - 1$, where p is prime.

#	p	M_p	Digits in M_p	Date of discovery	Discoverer
1	2	3	1	5th century BC	Ancient Greek mathematicians
2	3	7	1	5th century BC	Ancient Greek mathematicians
3	5	31	2	3rd century BC	Ancient Greek mathematicians
4	7	127	3	3rd century BC	Ancient Greek mathematicians
5	13	8 191	4	1456	<i>anonymous</i>
6	17	131 071	6	1588	Pietro Cataldi
7	19	524 287	6	1588	Pietro Cataldi
8	31	2 147 483 647	10	1772	Leonhard Euler
9	61	2 305 843 009 213 693 951	19	1883	Ivan M. Pervushin
10	89	618970019...449562111	27	1911	Ralph Ernest Powers
11	107	162259276...010288127	33	1914	Ralph Ernest Powers
12	127	170141183...884105727	39	1876	Édouard Lucas
13	521	686479766...115057151	157	January 30, 1952	Raphael M. Robinson, using LLT/SWAC
14	607	531137992...031728127	183	January 30, 1952	Raphael M. Robinson, using LLT/SWAC
15	1 279	104079321...168729087	386	June 25, 1952	Raphael M. Robinson, using LLT/SWAC
16	2 203	147597991...697771007	664	October 7, 1952	Raphael M. Robinson, using LLT/SWAC
17	2 281	446087557...132836351	687	October 9, 1952	Raphael M. Robinson, using LLT/SWAC
18	3 217	259117086...909315071	969	September 8, 1957	Hans Riesel, using LLT/BESK
19	4 253	190797007...350484991	1281	November 3, 1961	Alexander Hurwitz, using LLT/IBM 7090
20	4 423	285542542...608580607	1332	November 3, 1961	Alexander Hurwitz, using LLT/IBM 7090
21	9 689	478220278...225754111	2917	May 11, 1963	Donald B. Gillies, using LLT/ILLIAC II
22	9 941	346088282...789463551	2993	May 16, 1963	Donald B. Gillies, using LLT/ILLIAC II
23	11 213	281411201...696392191	3376	June 2, 1963	Donald B. Gillies, using LLT/ILLIAC II
24	19 937	431542479...968041471	6002	March 4, 1971	Tuckerman, using LLT/IBM 360/91
25	21 701	448679166...511882751	6533	October 30, 1978	Noll & Nickel, using LLT/CDC Cyber 174
26	23 209	402874115...779264511	6987	February 9, 1979	Noll
27	44 497	854509824...011228671	13395	April 8, 1979	Nelson & Slowinski
28	86 243	536927995...433438207	25962	September 25, 1982	Slowinski
29	110 503	521928313...465515007	33265	January 28, 1988	Colquitt & Welsh
30	132 049	512740276...730061311	39751	Sep. 19, 1983	Slowinski
31	216 091	746093103...815528447	65050	September 1, 1985	Slowinski
32	756 839	174135906...544677887	227832	February 19, 1992	Slowinski & Gage on Harwell Lab Cray-2
33	859 433	129498125...500142591	258716	January 4, 1994	Slowinski & Gage
34	1 257 787	412245773...089366527	378632	September 3, 1996	Slowinski & Gage
35	1 398 269	814717564...451315711	420921	November 13, 1996	GIMPS / Joel Armengaud
36	2 976 221	623340076...729201151	895932	August 24, 1997	GIMPS / Gordon Spence
37	3 021 377	127411683...024694271	909526	January 27, 1998	GIMPS / Roland Clarkson
38	6 972 593	437075744...924193791	2098960	June 1, 1999	GIMPS / Nayan Hajratwala
39	13 466 917	924947738...256259071	4053946	November 14, 2001	GIMPS / Michael Cameron
40	20 996 011	125976895...855682047	6320430	November 17, 2003	GIMPS / Michael Shafer
41	24 036 583	299410429...733969407	7235733	May 15, 2004	GIMPS / Josh Findley
42	25 964 951	122164630...577077247	7816230	February 18, 2005	GIMPS / Martin Nowak

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43	30 402 457	315416475...652943871	9152052	December 15, 2005	GIMPS / Curtis Cooper & Steven Boone
44	32 582 657	124575026...053967871	9808358	September 4, 2006	GIMPS / Curtis Cooper & Steven Boone
45	37 156 667	202254406...308220927	11185272	September 6, 2008	GIMPS / Hans-Michael Elvenich
46	42 643 801	169873516...562314751	12837064	April 12, 2009	GIMPS / Odd M. Strindmo
47	43 112 609	316470269...697152511	12978189	August 23, 2008	GIMPS / Edson Smith
48	57 885 161	581887266...724285951	17425170	January 25, 2013	GIMPS / Curtis Cooper
49?	74 207 281	300376418...086436351	22338618	January 7, 2016	GIMPS / Curtis Cooper
50?	77 232 917	467333183...762179071	23249425	December 26, 2017	GIMPS / Jonathan Pace
51?	82 589 933	148894445...217902591	24862048	December 7, 2018	GIMPS / Patrick Laroche

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