

Table 189c: Running Sums (Σ) of $2^p - 1 = p \#$.

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p	Σ of $2^p - 1 = p \#$	Mp = $2^p - 1 = z$
2	1+2=3 with p=2 entries	3
3	1+2+4=7 with p=3 entries	7
5	1+2+4+8+16=31 with p=5 entries	31
7	1+2+4+8+16+32+64=127 with p=7 entries	127
13	1+2+4+8+16+32+64+128+256+512+1024+2048+4096=8191 with p=13 entries	8191
17	1+2+4+8+16+32+64+128+256+512+1024+2048+4096+8192+16384+32768+65536=131071 with p=17 entries	131071
19	1+2+4+8+16+32+64+128+256+512+1024+2048+4096+8192+16384+32768+65536+131072+262144=524287 with p=19 entries	524287
31	1+2+4+8+16+32+64+128+256+512+1024+2048+4096+8192+16384+32768+65536+131072+262144+524288+1048576+2097152+4194304+8388608+16777216+33554432+67108864+134217728+268435456+536870912+1073741824+2147483648+4294967296+8589934592+17179869184+34359738368+68719476736+137438953472+274877906944+549755813888+1099511627776+2199023255552+4398046511104+8796093022208+17592186044416+35184372088832+70368744177664+140737488355328+281474976710656+562949953421312+1125899906842624+2251799813685248+4503599627370496+9007199254740992+18014398509481984+36028797018963968+72057594037927936+144115188075855872+288230376151711744+576460752303423488+1152921504606846976=2305843009213693951 with p=61 entries	2147483647
61	1+2+4+8+16+32+64+128+256+512+1024+2048+4096+8192+16384+32768+65536+131072+262144+524288+1048576+2097152+4194304+8388608+16777216+33554432+67108864+134217728+268435456+536870912+1073741824+2147483648+4294967296+8589934592+17179869184+34359738368+68719476736+137438953472+274877906944+549755813888+1099511627776+2199023255552+4398046511104+8796093022208+17592186044416+35184372088832+70368744177664+140737488355328+281474976710656+562949953421312+1125899906842624+2251799813685248+4503599627370496+9007199254740992+18014398509481984+36028797018963968+72057594037927936+144115188075855872+288230376151711744+576460752303423488+1152921504606846976=2305843009213693951 with p=61 entries	2305843009213693951
89	1+2+4+8+16+32+64+128+256+512+1024+2048+4096+8192+16384+32768+65536+131072+262144+524288+1048576+2097152+4194304+8388608+16777216+33554432+67108864+134217728+268435456+536870912+1073741824+2147483648+4294967296+8589934592+17179869184+34359738368+68719476736+137438953472+274877906944+549755813888+1099511627776+2199023255552+4398046511104+8796093022208+17592186044416+35184372088832+70368744177664+140737488355328+281474976710656+562949953421312+1125899906842624+2251799813685248+4503599627370496+9007199254740992+18014398509481984+36028797018963968+72057594037927936+144115188075855872+288230376151711744+576460752303423488+1152921504606846976+2305843009213693952+4611686018427387904+9223372036854775808+18446744073709551616+36893488147419103232+73786976294838206464+147573952589676412928+295147905179352825856+590295810358705651712+1180591620717411303424+2361183241434822606848+4722366482869645213696+9444732965739290427392+18889465931478580854784+37778931862957161709568+75557863725914323419136+151115727451828646838272+302231454903657293676544+604462909807314587353088+1208925819614629174706176+2417851639229258349412352+4835703278458516698824704+9671406556917033397649408+19342813113834066795298816+ 38685626227668133590597632+ 77371252455336267181195264+ 154742504910672534362390528+309485009821345068724781056=618970019642690137449562111 with p=89 entries	618970019642690137449562111
107		162259276829213363391578010288127
127		170141183460469231731687303715884105727
521		
607		
1279		
2203		
2281		
3217		
4253		
4423		
9689		
9941		
11213		
19937		
21701		
23209		
44497		
86243		
110503		
132049		
216091		
756839		
859433		
1257787		
1398269		
2976221		
3021377		
6972593		
13466917		
20996011		
24036583		
25964951		
30402457		
32582657		
37156667		
42643801		
43112609		
57885161		
74207281		
77232917		
82589933		
Table 189c	Table 189c: Running Sums (Σ)=p. This is the original Table 189: The Σ of some combination of the BF1=p, with Column 1 being the Primes. The distribution of those BF1 numbers — up to 8192 — is shown. What if every natural number -- EVEN or ODD, and already found on the DMT -- can also be made by the selective Running Sum (Σ) of the Butterfly Fractal 1 (BF1)? If you want an ODD (see Table 189a) you start with "1" and add up select EVENS -- 2-4-8-16-... -- and, if you want to make an EVEN (see Table 189b) you simply start without the "1." ALL natural numbers can be made from selective Σ s of the BF1. See Table 189c: Running Sums (Σ) of the BF1 that equal $2^p - 1$ to see how the “p” value ALSO gives the number of BF1 values that give the sum. Copyright©2025, Reginald Brooks, Brooks Design. All rights reserved.	