Table179_RunningSums-EDMT+

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EVENS		ALL Running Sums (∑) ACROSS (—>) the Rows.										EVENS÷4					
1 1	2 3	4 7	8 15	16 31	32 63	64 127	128 255	256 511	512 1023	1024 2047	2048 4095	4096 8191	8192 16383	16384 32767	32768 65535	65536 131071
2 2	4 6	8 14	16 30	32 62	64 126	128 254	256	512	1024	2048	4096	8192	16384	32768	65536	131072
4 4	8 12	16 **28**	32 60	64 124	128 252	256 508	512	1024	2048	4096	8192	16384	32768	65536	131072	262144
8 8	16 24	32 56	64 120	128 248	256 504	512	1024	2048	4096	8192	16384	32768	65536	131072	262144	524288
16 16	32 48	64 112	128 240	256 **496**	512 1008	1024 2032										
32 32	64 96	128 224	256 480	512 992	1024 2016	2048 4064										
64 64	128 192	256 448	512 960	1024 1984	2048 4032	4096 **8128**	8192	16384	32768	65536	131072	262144	524288	1048576	2097152	4194304
128 128	256 384	512 896	1024 1920	2048 3968	4096 8064	8192 16256	16384 32768	32768	65536	131072	262144	524288	1048576	2097152	4194304	8388608
256 256	512 768	1024 1792	2048 3840	4096 7936	8192 16128	16384 32512	32768 65280	65536 130816	131072	262144	524288	1048576	2097152	4194304	8388608	16777216
512 512	1024 1536	2048 3584	4096 7680	8192 15872	16384 32256	32768 65024	65536 130560	131072 261632	262144 523776	524288	1048576	2097152	4194304	8388608	16777216	33554432
1024 1024	2048 3072	4096 7168	8192 15360	16384 31744	32768 64512	65536 130048	131072 261120	262144 523264	524288 1047552	1048576 2096128	2097152	4194304	8388608	16777216	33554432	67108864
2048 2048	4096 6144	8192 14336	16384 30720	32768 63488	65536 129024	131072 260096	262144 522240	524288 1046528	1048576 2095104	2097152 4192256	4194304 8386560	8388608	16777216	33554432	67108864	134217728
4096 4096	8192 12288	16384 28672	32768 61440	65536 126976	131072 258048	262144 520192	524288 1044480	1048576 2093056	2097152 4190208	4194304 8384512	8388608 16773120	16777216 33550336	33554432	67108864	134217728	268435456
8192 8192	16384 24576	32768 57344	65536 122880	131072 253952	262144 516096	524288 1040384	1048576 2088960	2097152 4186112	4194304 8380416	8388608 16769024	16777216 33546240	33554432 67100672	67108864 134209536	134217728	268435456	536870912
16384 16384	32768 49152	65536 114688	131072 245760	262144 507904	524288 1032192	1048576 2080768	2097152 4177920	4194304 8372224	8388608 16760832	16777216 33538048	33554432 67092480	67108864 134201344	134217728 268419072	268435456 536854528	536870912	1073741824
32768 32768	65536 98304	131072 229376	262144 491520	524288 1015808	1048576 2064384	2097152 4161536	4194304 8355840	8388608 16744448	16777216 33521664	33554432 67059456	67108864 134184960	134217728 268402688	268435456 536838144	536870912 1073709056	1073741824 2147450880	2147483648
65536 65536	131072 196608	262144 458752	524288 983040	1048576 2031616	2097152 4128768	4194304 8323072	8388608 16711680	16777216 33488896	33554432 67043328	67108864 134475674112	134217728 268369920	268435456 536805376	536870912 1073676288	1073741824 2147418112	2147483648 4294901760	4294967296 8589869056

ONLY Perfect Numbers (PN=xz) show ALL divisors as the Running Sums (∑) in the Columns 1 and the Column containing the PN, both down the Column to the Row with the PN, e.i. PN 496 consists of factors 1-2-4-8-16 from Col. 1 and 31-62-124-248 leading up to 496. Their sum = 496 = PN = xz = 2^{p-1} (2^p -1). ONLY the 2 Columns in the p=5 Rows are needed. This contrasts sharply with both the other SET/STRAND 1 PN "candidates" (GRAY) that are NOT TRUE PN, and, ALL the other "container" candidates (YELLOW-GREEN)in SET/STRAND 2 e.i. 120 from SET/STRAND 2, has 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60, 120 has 16 divisors and 15 factors (factor sum=240) that do NOT form a PN, and not all of the divisors are even present on the EDMT Running Sums, such as the ODD 5.

Table179_RunningSums-EDMT+ Perfect Numbers (PN=xz) in BOLD (WHITE), SET/STRAND 1 in PURPLE, SET/STRAND 2 in GREEN-BLUE-GREEN.

Header Row=Mp=z=2^p -1 in the WHITE ∑s. Header Column=x=2^{p-1} in either WHITE or BLACK.

Border Key: BLACK=Mersenne Prime-Perfect Numbers, and GRAY="containers" — both in SET/STRAND 1. YELLOW="containers" in SET/STRAND 2. In both SETS/STRANDS 1 & 2, the cell value directly below any given BLACK, GRAY or YELLOW PD cell value equals the Complement Rectangle (CR) — xy — of the "container that is next in that Row. This CR value is 2x the starting cell value, e.i. PN 28 has 56 directly below and 56=xy=CR of the adjacent "container" value 120. The CR is shown with a matching CIRCLE/OVAL border to the PD cell that it belongs to. The cell previous to 28 has the value of 12 and 12 is the CR of PN28, and when divided by 2 equals PN6. This is a natural connection — even entanglement, if you will — between any given "container" and those before and after. SET/STRAND 1 "containers" also hold the TRUE Mp-PN pairings.

SET/STRAND 1: p=ODD "net"p=EVEN=x x÷4 y÷3 z NOT÷3 xz NOT÷3 and the Differences between PNs — and other candidates — are ÷24.

SET/STRAND 2 "containers": p=EVEN "net"p=ODD=x x÷4 y NOT÷3 z÷3 xz÷3 and the Differences between PN "container" candidates are ÷24.

SET/STRAND 1 is every other PD and SET/STRAND 2 is every other PD in between. SET/STRAND 1 and SET/STRAND 2 Differences ÷24 are specific and exclusive to each set — they can not be mixed. SETS/STRANDS 1 & 2 act like two similar — yet dissimilar — strands spiraling around each other like a doublehelix, connected by the CR of one being double the PN of the one previous — both in terms of their Running Sums (∑).

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