Table 196 Make_DMT

Table 196 Make DMT (via Exponential Power of 2)

p	z=Mp	x—>	EVENs-NOT÷4	Set 1		Set 1 EVENS÷4		Set 1	
	2^p-1	ODDs	2^2-1	2^3-1	2^4-1	2^5-1	2^6-1	2^7-1	One is one + 10
*1	2^1 -1	1	2	4	8	16	32	64	
2	2^2 -1	3	6	12	24	48	96	192	
		5	10	20	40	80	160	320	The first quantity one is one: 2^0 =1
3	2^3 -1	7	14	28	56	112	224	448	p=0 2^0 =1 2^0 -1=1-1=0 2^0^!=2^-1=-2 (0+0)/2=0
		9	18	36	72	144	288	576	**10 PARAMETERS for "p"**
		11	22	44	88	176	352	704	**p=1** gives a SQUARE 1x1, with AREA 1, no OC, OCS, or CR: This is ONE! 2^1 =2 2^1 -1=2-1=1=z x=z=2^{p-1} =2^{1-1} =2^0 =1=x x=(z+1)/2=(1+1)/2=1=x y=(z-1)/2=(1-1)/2=0=y **xz=PN=1*1=1** yz=OC=0*1=0 z=x+y=1+0=1=z x^2 =PNS=1^2 =1 y^2 =OCS=0^2 =0 z^2 =MPS=1^2 =1 xy=CR=1*0=0
		13	26	52	104	208	416	832	
4	2^4 -1	15	30	60	120	240	480	960	
		17	34	68	136	272	544	1088	**p=2** 2^2 =4 $z=2^2$ -1=4-1=3=z $x=2^{p-1}$ =2^{2-1}=2^1 =2=x x=(z+1)/2=(3+1)/2=2=x y=(z-1)/2=(3-1)/2=1=y **xz=PN=2*3=6** yz=OC=1*3=3 z=x+y=2+1=3=z x^2 =PNS=2^2 =4 y^2 =OCS=1^2 =1 z^2 =MPS=3^2 =9 xy=CR=1*2=2
		19	38	76	152	304	608	1216	
		23	46	92	184	368	736	1472	
		29	58	116	232	464	928	1856	**p=3** 2^3 =8 $z=2^3$ -1=8-1=7=z $x=2^{p-1}$ =2^{2} -1=2^2 =4=x x=(z+1)/2=(7+1)/2=4=x y=(z-1)/2=(7-1)/2=3=y **xz=PN=4*7=28** yz=OC=3*7=21 z=x+y=4+3=7=z x^2 =PNS=4^2 =16 y^2 =OCS=3^2 =9 z^2 =MPS=7^2 =49 xy=CR=4*3=12
5	2^5 -1	31	62	124	248	496	992	1984	
		37	74	148	296	592	1184	2368	
		41	82	164	328	656	1312	2624	p=4 2^4 =16 $z=2^4$ -1=16-1=15=z $x=2^{p-1}$ =2^{4-1}=2^3 =8=x x=(z+1)/2=(15+1)/2=8=x y=(z-1)/2=(15-1)/2=7=y xz=PN=8*15=120 yz=OC=7*15=105 z=x+y=8+7=15=z x^2 =PNS=8^2 =64 y^2 =OCS=7^2 =49 z^2 =MPS=15^2 =225 xy=CR=8*7=56
		43	86	172	344	688	1376	2752	
		47	94	188	376	752	1504	3008	
		53	106	212	424	848	1696	3392	**p=5** 2^5 =32 $z=2^5$ -1=32-1=31=z $x=2^{p-1}$ =2^{5-1}=2^4 =16=x x=(z+1)/2=(31+1)/2=16=x y=(z-1)/2=(31-1)/2=15=y **xz=PN=16*31=496** yz=OC=15*31=465 z=x+y=16+15=31=z x^2 =PNS=16^2 =256 y^2 =OCS=15^2 =225 z^2 =MPS=31^2 =961 xy=CR=16*15=240
		59	118	236	472	944	1888	3776	
		61	122	244	488	976	1952	3904	
6	2^6 -1	63	126	252	504	1008	2016	4032	p=6 2^6 =64 $z=2^6$ -1=64-1=63=z $x=2^{p-1}$ = 2^6^!=2^5=32=x x=(z+1)/2=(63+1)/2=32=x y=(z-1)/2=(63-1)/2=31=y xz=PN=32*63=2016 yz=OC=32*63=1953 z=x+y=32+31=63=z x^2 =PNS=32^2=1024 y^2 =OCS=31^2 =961 z^2 =MPS=63^2=3969 xy=CR=32*31=992
		67	134	268	536	1072	2144	4288	
		71	142	284	568	1136	2272	4544	
		73	146	292	584	1168	2336	4672	**p=7** 2^7 =128 $z=2^7$-1=128-1 =127=z $x=2^{p-1}$ =2^{7-1}=2^6=64= x x=(z+1)/2=(127+1)/2=64=x y=(z-1)/2=(127-1)/2=63=y **xz=PN=64*127=8128** yz=OC=63*127=8001 z=x+y=64+63=127=z x^2 =PNS=64^2 =4096 y^2 =OCS=63^2 =3969 z^2 =MPS=127^2=16129 xy=CR=64*63=4032
		79	158	316	632	1264	2528	5056	
		83	166	332	664	1328	2656	5312	
		89	178	356	712	1424	2848	5696	
		97	194	388	776	1552	3104	6208	
		101	202	404	808	1616	3232	6464	**Exponential Power of 2:** 2^0=1 2^1=2 2^2=4 2^3=8 2^4=16 2^5=32 2^6=64 2^7=128 2^8=256 2^9=512 2^{10}=1024 2^{11}=2048 2^{12}=4096 2^{13}=8192 2^{14}=16383 2^{15}=32768 2^{16}=65536 2^{17}=131072 2^{18}=524288 2^{20}=1048576 2^{21}=2097152 2^{22}=4194304 2^{23}=8388608 2^{24}=16777216 2^{25}=33554432 2^{26}=67108864 2^{27}=134217728 2^{28}=268435456 2^{29}=536870912 2^{30}=1073741824 2^{31}=2147483648 2^{32}=4294967296 If the exponent is treated as "p": 2^{p-1} = z = Mp container ; 2^{p-1} = x container The Euclid-Euler Theorem states: Perfect Number (PN)=2^{p-1} (2^p-1) when p=Mersenne Prime (Mp)
		103	206	412	824	1648	3296	6592	
		107	214	428	856	1712	3424	6848	
		109	218	436	872	1744	3488	6976	
		113	226	452	904	1808	3616	7232	
7	2^7 -1	127	254	508	1016	2032	4064	8128	

Table 196 Make DMT (Via the Exponential Power of 2)

To grow, select and expand to the bottom and then fill left column by autofill, other columns will autofill from this.

Simply double the ODDs Column. Double each Column for expanding Columns. The Mersenne Primes — Perfect Numbers are shown in BOLD.

Except for PN6, all PNs are found in Set 1 Columns 4-16-64… The p-values for TRUE, Active Mersenne Primes are: *(1)-2-3-5-7-13-17-19-31-61-89…

The ODDs Column contains non-containers, containers and TRUE, Active containers — the latter outlined with BOLD Box Borders.

Note: ODDs that are not Mp/derived from the Exponential Power of 2 are NOT TRUE and/or are non-containers, i.e. ODDs

5-9-11-13-15-17-19-21-23-25-27-29-33-35-37-39-41-43-45-47-49-51-53-55-57-59-63-65-67-69-71-73-75-77-79-81-83-85-87-91-93-95-97….

NOTICE:

p=# of STEPS from 1 to x

2p=total # of STEPS from 1 to xz=PN and # of Divisors(Factors) for xz=PN TRUE, Active ONLY

p_{next}=2p-1

$z=y_{next}$

$z+1=x_{next}$

$xz=PN=xy_{next}/2=CR_{next}/2$

$z^2=y^2_{next}$ and y=x-1

If the exponent is treated as "p": 2^{p-1}= z = Mp container ; 2^{p-1} = x container.

The Euclid-Euler Theorem states: Perfect Number (PN)=2^{p-1} (2^p-1) when p=Mersenne Prime (Mp)

Note that the Set 1 Columns above are — except for PN6 — the only columns that hold containers that include the TRUE, Active Mp-PN pairings, and, these columns are composed of 2^n EVENs÷4 that are exclusively where n=EVEN, i.e. one starts with 2^6 with n=ODD, but after 2^{n-1} = 2^{p-1}, one gets the EVENs÷4 of SET 1: 4-16-64-256-1024-4096-16384-65536 - 262144 … x-containers — where each value is 4x its previous value. *

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Table 196 Make DMT (via Exponential Power of 2)

p	z=Mp	x—>	EVENs-NOT÷4	Set 1		EVENS÷4		Set 1	
	2^p-1	ODDs	2^2-1	2^3-1	2^4-1	2^5-1	2^6-1	2^7-1	One is one + 10
*1	2^1 -1	1	2	4	8	16	32	64	
2	2^2 -1	3	6	12	24	48	96	192	
		5	10	20	40	80	160	320	The first quantity one is one: 2^0 =1
3	2^3 -1	7	14	28	56	112	224	448	p=0 2^0 =1 2^0 -1=1-1=0 2^0^!=2^-1=-2 (0+0)/2=0
		9	18	36	72	144	288	576	**10 PARAMETERS for "p"**
		11	22	44	88	176	352	704	**p=1** gives a SQUARE 1x1, with AREA 1, no OC, OCS, or CR: This is ONE! 2^1 =2 2^1 -1=2-1=1=z x=z=2^{p-1} =2^{1-1} =2^0 =1=x x=(z+1)/2=(1+1)/2=1=x y=(z-1)/2=(1-1)/2=0=y **xz=PN=1*1=1** yz=OC=0*1=0 z=x+y=1+0=1=z x^2 =PNS=1^2 =1 y^2 =OCS=0^2 =0 z^2 =MPS=1^2 =1 xy=CR=1*0=0
		13	26	52	104	208	416	832	
4	2^4 -1	15	30	60	120	240	480	960	
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		9	18	36	72	144	288	576	The first quantity one is one: 2^0 =1
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6	2^6 -1	63	126	252	504	1008	2016	4032	
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		73	146	292	584	1168	2336	4672	
		79	158	316	632	1264	2528	5056	
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		89	178	356	712	1424	2848	5696	
		97	194	388	776	1552	3104	6208	
		101	202	404	808	1616	3232	6464	
		103	206	412	824	1648	3296	6592	**Exponential Power of 2:** 2^0=1 2^1=2 2^2=4 2^3=8 2^4=16 2^5=32 2^6=64 2^7=128 2^8=256 2^9=512 2^{10}=1024 2^{11}=2048 2^{12}=4096 2^{13}=8192 2^{14}=16383 2^{15}=32768 2^{16}=65536 2^{17}=131072 2^{20}=524288 2^{20}=1048576 2^{21}=2097152 2^{22}=4194304 2^{23}=8388608 2^{24}=16777216 2^{25}=33554432 2^{26}=67108864 2^{27}=134217728 2^{28}=268435456 2^{29}=536870912 2^{30}=1073741824 2^{31}=2147483648 2^{32}=4294967296
		107	214	428	856	1712	3424	6848	
		109	218	436	872	1744	3488	6976	
		113	226	452	904	1808	3616	7232	
7	2^7 -1	127	254	508	1016	2032	4064	8128	

Table 196 Make DMT (Via the Exponential Power of 2)

To grow, select and expand to the bottom and then fill left column by autofill, other columns will autofill from this.

Simply double the ODDs Column. Double each Column for expanding Columns. The Mersenne Primes — Perfect Numbers are shown in BOLD.

Except for PN6, all PNs are found in Set 1 Columns 4-16-64… The p-values for TRUE, Active Mersenne Primes are: *(1)-2-3-5-7-13-17-19-31-61-89…

The ODDs Column contains non-containers, containers and TRUE, Active containers — the latter outlined with BOLD Box Borders.

Note: ODDs that are not Mp/derived from the Exponential Power of 2 are NOT TRUE and/or are non-containers, i.e. ODDs

5-9-11-13-15-17-19-21-23-25-27-29-33-35-37-39-41-43-45-47-49-51-53-55-57-59-63-65-67-69-71-73-75-77-79-81-83-85-87-91-93-95-97….

NOTICE:

p=# of STEPS from 1 to x

2p=total # of STEPS from 1 to xz=PN and # of Divisors(Factors) for xz=PN TRUE, Active ONLY

p_{next}=2p-1

z=y_{next}

z+1=x_{next}

xz=PN=xy_{next}/2=CR_{next}/2

z^2 =y^2_{next} and y=x-1

If the exponent is treated as "p": 2^{p-1}= z = Mp container ; 2^{p-1} = x container.

The Euclid-Euler Theorem states: Perfect Number (PN)=2^{p-1} (2^p-1) when p=Mersenne Prime (Mp)

Note that the Set 1 Columns above are — except for PN6 — the only columns that hold containers that include the TRUE, Active Mp-PN pairings, and, these columns are composed of 2^n EVENs÷4 that are exclusively where n=EVEN, i.e. one starts with 2^n with n=ODD, but after 2^{n-1} = 2^{p-1}, one gets the EVENs÷4 of SET 1: 4-16-64-256-1024-4096-16384-65536 - 262144 … x-containers — where each value is 4x its previous value. *Except for 2, ALL are ODDs.

Table 196 Make_DMT

Table 196 Make DMT (via Exponential Power of 2)

p	z=Mp	x—>	EVENs-NOT÷4	Set 1		Set 1 EVENS÷4		Set 1	
	2^p-1	ODDs	2^{2}-^{1}	2^{3}-^{1}	2^{4}-^{1}	2^{5}-^{1}	2^{6}-^{1}	2^{7}-^{1}	One is one + 10
*1	2^1 -1	1	2	4	8	16	32	64	
2	2^2 -1	3	6	12	24	48	96	192	
3	2^3 -1	7	14	28	56	112	224	448	
4	2^4 -1	15	30	60	120	240	480	960	
5	2^5 -1	31	62	124	248	496	992	1984	
6	2^6 -1	63	126	252	504	1008	2016	4032	
7	2^7 -1	127	254	508	1016	2032	4064	8128	

Table 196 Make DMT (Via the Exponential Power of 2)

To grow, select and expand to the bottom and then fill left column by autofill, other columns will autofill from this. Simply double the ODDs Column. Double each Column for expanding Columns.

The Mersenne Primes — Perfect Numbers are shown in BOLD.

Except for PN6, all PNs are found in Set 1 Columns 4-16-64… The p-values for TRUE, Active Mersenne Primes are: *(1)-2-3-5-7-13-17-19-31-61-89…

The ODDs Column contains non-containers, containers and TRUE, Active containers — the latter outlined with BOLD Box Borders.

ODDs that are not Mp/derived from the Exponential Power of 2 are NOT TRUE and/or are non-containers, i.e. ODDs 5-9-11-13-15-17-19-21-23-25-27-29-33-35-37-39-41-43-45-47-49-51-53-55-57-59-63-65-67-69-71-73-75-77-79-81-83-85-87-91-93-95-97-99-101-103-105-109-111-113-115-117-119-121-123-125-129…

NOTICE:

p=# of STEPS from 1 to x

2p=total # of STEPS from 1 to xz=PN and # of Divisors(Factors) for xz=PN TRUE, Active ONLY

p_{next}=2p-1

$z=y_{next}$

$z+1=x_{next}$

$xz=PN=xy_{next}/2=CR_{next}/2$

$z^2=y^2_{next}$ and y=x-1

If the exponent is treated as “p”: 2^p-1= z = Mp container ; 2^{p-1} = x container.

The Euclid-Euler Theorem states: Perfect Number (PN)=2^{p-1} (2^p-1) when p=Mersenne Prime (Mp)

Note that the Set 1 Columns above are — except for PN6 — the only columns that hold containers that include the TRUE, Active Mp-PN pairings, and, these columns are composed of 2^n EVENs÷4 that are exclusively where n=EVEN, i.e. one starts with 2^n with n=ODD, but after 2^{n-1} = 2^{p-1}, one gets the EVENs÷4 of SET 1:

4-16-64-256-1024-4096-16384-65536 - 262144 … x-containers — where each value is 4x its previous value. *

The first quantity one is one:
2^0 =1

p=0
2^0 =1
2^0 -1=1-1=0
2^0^{-1}=2^-1=-2
(0+0)/2=0

10 PARAMETERS for “p”

p=1 gives a SQUARE 1x1, with AREA 1, no OC, OCS, or CR: This is ONE!
2^1 =2
2^1 -1=2-1=1=z
$x=z=2^{p-1}=2^{1-1}=2^0$ =1=x
x=(z+1)/2=(1+1)/2=1=x
y=(z-1)/2=(1-1)/2=0=y
xz=PN=1*1=1
yz=OC=0*1=0
z=x+y=1+0=1=z
x^2 =PNS=1^2 =1
y^2 =OCS=0^2 =0
z^2 =MPS=1^2 =1
xy=CR=1*0=0

p=2
2^2 =4
$z=2^2$ -1=4-1=3=z
$x=2^{p-1}=2^{2-1}=2^1$ =2=x
x=(z+1)/2=(3+1)/2=2=x
y=(z-1)/2=(3-1)/2=1=y
xz=PN=2*3=6
yz=OC=1*3=3

z=x+y=2+1=3=Z
x^2 =PNS=2^2 =4
y^2 =OCS=1^2 =1
z^2 =MPS=3^2 =9
xy=CR=1*2=2

p=3
2^3 =8
$z=2^3$ -1=8-1=7=z
$x=2^{p-1}=2^{2-1}=2^2$ =4=x
x=(z+1)/2=(7+1)/2=4=x
y=(z-1)/2=(7-1)/2=3=y
xz=PN=4*7=28
yz=OC=3*7=21
z=x+y=4+3=7=z
x^2 =PNS=4^2 =16
y^2 =OCS=3^2 =9
z^2 =MPS=7^2 =49
xy=CR=4*3=12

p=4
2^4 =16
$z=2^4$ -1=16-1=15=z
$x=2^{p-1}=2^{4-1}=2^3$ =8=x
x=(z+1)/2=(15+1)/2=8=x
y=(z-1)/2=(15-1)/2=7=y
xz=PN=8*15=120
yz=OC=7*15=105
z=x+y=8+7=15=z
x^2 =PNS=8^2 =64
y^2 =OCS=7^2 =49
z^2 =MPS=15^2 =225
xy=CR=8*7=56

p=5
2^5 =32
$z=2^5$ -1=32-1=31=z
$x=2^{p-1}=2^{5-1}=2^4$ =16=x
x=(z+1)/2=(31+1)/2=16=x
y=(z-1)/2=(31-1)/2=15=y
xz=PN=16*31=496
yz=OC=15*31=465
z=x+y=16+15=31=z
x^2 =PNS=16^2 =256
y^2 =OCS=15^2 =225
z^2 =MPS=31^2 =961
xy=CR=16*15=240

p=6
2^6 =64
$z=2^6$ -1=64-1=63=z
$x=2^{p-1}$ = 2^6^{-1}=2^5=32=x
x=(z+1)/2=(63+1)/2=32=x
y=(z-1)/2=(63-1)/2=31=y
xz=PN=32*63=2016
yz=OC=32*63=1953
z=x+y=32+31=63=z
x^2 =PNS=32^2=1024
y^2 =OCS=31^2 =961
z^2 =MPS=63^2=3969
xy=CR=32*31=992

p=7
2^7 =128
$z=2^7$-1=128-1 =127=z
$x=2^{p-1}=2^{7-1}=2^6$=64= x
x=(z+1)/2=(127+1)/2=64=x
y=(z-1)/2=(127-1)/2=63=y
xz=PN=64*127=8128
yz=OC=63*127=8001
z=x+y=64+63=127=z
x^2 =PNS=64^2 =4096
y^2 =OCS=63^2 =3969
z^2 =MPS=127^2=16129
xy=CR=64*63=4032

Table 196 Make_DMT

Table 196 Make DMT (via Exponential Power of 2)

p	z=Mp	x—>	EVENs-NOT÷4	Set 1		Set 1	EVENS÷4	Set 1		Set 1		Set 1		Set 1	
	2^p-1	ODDs	2^{2}-^{1}	2^{3}-^{1}	2^{4}-^{1}	2^{5}-^{1}	2^{6}-^{1}	2^{7}-^{1}	2^{8}-^{1}	2^{9}-^{1}	2^{10}-^{1}	2^{11}-^{1}	2^{12}-^{1}	2^{13}-^{1}	One is one + 10
*1	2^1 -1	1	2	4	8	16	32	64	128	256	512	1024	2048	4096	
2	2^2 -1	3	6	12	24	48	96	192	384	768	1536	3072	6144	12288	
3	2^3 -1	7	14	28	56	112	224	448	896	1792	3584	7168	14336	28672	
4	2^4 -1	15	30	60	120	240	480	960	1920	3840	7680	15360	30720	61440	
5	2^5 -1	31	62	124	248	496	992	1984	3968	7936	15872	31744	63488	126976	
6	2^6 -1	63	126	252	504	1008	2016	4032	8064	16128	32256	64512	129024	258048	
7	2^7 -1	127	254	508	1016	2032	4064	8128	16256	32512	65024	130048	260096	520192	
8	2^8-1	255	510	1020	2040	4080	8160	16320	32640	65280	130560	261120	522240	1044480	
9	2^9-1	511	1022	2044	4088	8176	16352	32704	65408	130816	261632	523264	1046528	2093056	
10	2^{10}-1	1023	2046	4092	8184	16368	32736	65472	130944	261888	523776	1047552	2095104	4190208	
11	2^{11}-1	2047	4094	8188	16376	32752	65504	131008	262016	524032	1048064	2096128	4192256	8384512	
12	2^{12}-1	4095	8190	16380	32760	65520	131040	262080	524160	1048320	2096640	4193280	8386560	16773120	
13	2^{13}-1	8191	16382	32764	65528	131056	262112	524224	1048448	2096896	4193792	8387584	16775168	33550336	

The first quantity one is one: 2^0 =1

p=0
2^0 =1
2^0 -1=1-1=0
2^0^1=2^-1=-2
(0+0)/2=0

10 PARAMETERS for "p"

p=1 gives a SQUARE 1x1, with AREA 1, no OC, OCS, or CR: This is ONE!
2^1 =2
2^1 -1=2-1=1=z
x=z=2^{p-1} =2^{1-1} =2^0 =1=x
x=(z+1)/2=(1+1)/2=1=x
y=(z-1)/2=(1-1)/2=0=y
xz=PN=1*1=1
yz=OC=0*1=0
z=x+y=1+0=1=z
x^2 =PNS=1^2 =1
y^2 =OCS=0^2 =0
z^2 =MPS=1^2 =1
xy=CR=1*0=0

p=2
2^2 =4
z=2^2 -1=4-1=3=z
x=2^{p-1} =2^{2-1}=2^1 =2=x
x=(z+1)/2=(3+1)/2=2=x
y=(z-1)/2=(3-1)/2=1=y
xz=PN=2*3=6
yz=OC=1*3=3
z=x+y=2+1=3=z
x^2 =PNS=2^2 =4
y^2 =OCS=1^2 =1
z^2 =MPS=3^2 =9
xy=CR=1*2=2

p=3
2^3 =8
z=2^3 -1=8-1=7=z
x=2^{p-1} =2^2 -1=2^2 =4=x
x=(z+1)/2=(7+1)/2=4=x
y=(z-1)/2=(7-1)/2=3=y
xz=PN=4*7=28
yz=OC=3*7=21
z=x+y=4+3=7=z
x^2 =PNS=4^2 =16
y^2 =OCS=3^2 =9
z^2 =MPS=7^2 =49
xy=CR=4*3=12

p=4
2^4 =16
z=2^4 -1=16-1=15=z
x=2^{p-1} =2^{4-1}=2^3 =8=x
x=(z+1)/2=(15+1)/2=8=x
y=(z-1)/2=(15-1)/2=7=y
xz=PN=8*15=120
yz=OC=7*15=105
z=x+y=8+7=15=z
x^2 =PNS=8^2 =64
y^2 =OCS=7^2 =49
z^2 =MPS=15^2 =225
xy=CR=8*7=56

p=5
2^5 =32
z=2^5 -1=32-1=31=z
x=2^{p-1} =2^{5-1}=2^4 =16=x
x=(z+1)/2=(31+1)/2=16=x
y=(z-1)/2=(31-1)/2=15=y
xz=PN=16*31=496
yz=OC=15*31=465
z=x+y=16+15=31=z
x^2 =PNS=16^2 =256
y^2 =OCS=15^2 =225
z^2 =MPS=31^2 =961
xy=CR=16*15=240

p=6
2^6 =64
z=2^6 -1=64-1=63=z
x=2^{p-1} = 2^6^-1=2^5=32=x
x=(z+1)/2=(63+1)/2=32=x
y=(z-1)/2=(63-1)/2=31=y
xz=PN=32*63=2016
yz=OC=32*63=1953
z=x+y=32+31=63=z
x^2 =PNS=32^2=1024
y^2 =OCS=31^2 =961
z^2 =MPS=63^2=3969
xy=CR=32*31=992

p=7
2^7 =128
z=2^7-1=128-1 =127=z
x=2^{p-1} =2^7-1=2^6=64= x
x=(z+1)/2=(127+1)/2=64=x
y=(z-1)/2=(127-1)/2=63=y
xz=PN=64*127=8128
yz=OC=63*127=8001
z=x+y=64+63=127=z
x^2 =PNS=64^2 =4096
y^2 =OCS=63^2 =3969
z^2 =MPS=127^2=16129
xy=CR=64*63=4032

Exponential Power of 2:
2^0=1
2^1=2
2^2=4
2^3=8
2^4=16
2^5=32
2^6=64
2^7=128
2^8=256
2^9=512
2^{10}=1024
2^{11}=2048
2^{12}=4096
2^{13}=8192
2^{14}=16383
2^{15}=32768
2^{16}=65536
2^{17}=131072
2^{19}=524288
2^{20}=1048576
2^{21}=2097152
2^{22}=4194304
2^{23}=8388608
2^{24}=16777216
2^{25}=33554432
2^{26}=67108864
2^{27}=134217728
2^{28}=268435456
2^{29}=536870912
2^{30}=1073741824
2^{31}=2147483648
2^{32}=4294967296

Table 196 Make DMT (Via the Exponential Power of 2)

To grow, select and expand to the bottom and then fill left column by autofill, other columns will autofill from this.
Simply double the ODDs Column. Double each Column for expanding Columns. The Mersenne Primes — Perfect Numbers are shown in BOLD.
Except for PN6, all PNs are found in Set 1 Columns 4-16-64… The p-values for TRUE, Active Mersenne Primes are: *(1)-2-3-5-7-13-17-19-31-61-89…
The ODDs Column contains non-containers, containers and TRUE, Active containers — the latter outlined with BOLD Box Borders.
ODDs that are not Mp/derived from the Exponential Power of 2 are NOT TRUE and/or are non-containers, i.e. ODDs
5-9-11-13-15-17-19-21-23-25-27-29-33-35-37-39-41-43-45-47-49-51-53-55-57-59-63-65-67-69-71-73-75-77-79-81-83-
85-87-91-93-95-97-99-101-103-105-109-111-113-115-117-119-121-123-125-129…

NOTICE:

p=# of STEPS from 1 to x
2p=total # of STEPS from 1 to xz=PN and # of Divisors(Factors) for xz=PN TRUE, Active ONLY
p_{next}=2p-1
z=y_{next}
z+1=x_{next}
xz=PN=$xy_{next}/2=CR_{next}/2$
z^2 =y^2_{next} and y=x-1
If the exponent is treated as "p": 2^p-1= z = Mp container ; 2^{p-1} = x container.
The Euclid-Euler Theorem states: Perfect Number (PN)=2^{p-1} (2^p-1) when p=Mersenne Prime (Mp)
Note that the Set 1 Columns above are — except for PN6 — the only columns that hold containers that include the TRUE, Active Mp-PN pairings, and, these columns are composed of 2^n EVENs÷4 that are exclusively where n=EVEN, i.e. one starts with 2^n with n=ODD, but after 2^{n-1} = 2^{p-1}, one gets the EVENs÷4 of SET 1:
4-16-64-256-1024-4096-16384-65536 - 262144 … x-containers — where each value is 4x its previous value. *Except for 2, ALL are ODDs.