

Table 141: Coordinate-Based Rectangle (CBR)

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p	z=Mp	z ² =MPS	x=2 ^{p-1}	y=x-1	PN = xz	4MPS	x ²	CBR=4z ² - x ² =C•R	Column(C)=y+z =2y+x	Row(R)=2z+x =3x+2y
2	3	9	2	1	6	36	4	32	4	8
3	7	49	4	3	28	196	16	180	10	18
4	15	225	8	7	120	900	64	836	22	38
5	31	961	16	15	496	3844	256	3588	46	78
6	63	3969	32	31	2016	15876	1024	14852	94	158
7	127	16129	64	63	8128	64516	4096	60420	190	318
8	255	65025	128	127	32640	260100	16384	243716	382	638
9	511	261121	256	255	130816	1044484	65536	978948	766	1278
10	1023	1046529	512	511	523776	4186116	262144	3923972	1534	2558
11	2047	4190209	1024	1023	2096128	16760836	1048576	15712260	3070	5118
12	4095	16769025	2048	2047	8386560	67076100	4194304	62881796	6142	10238
13	8191	67092481	4096	4095	33550336	268369924	16777216	251592708	12286	20478
14	16383	268402689	8192	8191	134209536	1073610756	67108864	1006501892	24574	40958
15	32767	1073676289	16384	16383	536854528	4294705156	268435456	4026269700	49150	81918
16	65535	4294836225	32768	32767	2147450880	17179344900	1073741824	16105603076	98302	163838
17	131071	17179607041	65536	65535	8589869056	68718428164	4294967296	64423460868	196606	327678
18	262143	68718952449	131072	131071	34359607296	274875809796	17179869184	257695940612	393214	655358
19	524287	274876858369	262144	262143	137438691328	1099507433476	68719476736	1030787956740	786430	1310718
				-1						
31	2147483647	4611686014132 420609	1073741824	1073741823	230584300813995 2128	1844674405652968 2436	115292150460684 6976	1729382255192283 5460	3221225470	5368709118
p	z=Mp	z ² =MPS	x=2 ^{p-1}	y=x-1	PN = xz	4MPS	x ²	CBR=4z ² - x ² =C•R	Column(C)=y+z =2y+x	Row(R)=2z+x =3x+2y

Table 141: Coordinate-Based Rectangle (CBR): $CRB=4MPS-x^2=4z^2 - x^2$

The CBR is an interesting finding on the **BIM**. If one subtracts x^2 from 4 times the **MPS** value one gets the CBR Area. The Column (C) and Row(R) coordinates are found on their Axis as $C=y+z$ and $R=2z+x$. The product of $C•R=$ CBR Area. The difference between the Row and Column coordinates: $R-C=2x$. Please see CBR graphics to visualize this information.

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