Running Differences of (Sqrd Axis #s - sequential PD#s) forms the BIM

NP = 6*yx* ± *y* on the BIM with the *x* value sets

(NP=NO-PRIMES; let x = 1, 2, 3,… and y = ODD # ≥3; add 3 exponential, 3^x)

Axis, A = 0, 1, 2, 3,…

Axis², A² = O²

Prime Diagonal, PD = A²

1st Diagonal = ALL ODDs ≥3 = contains ALL primes ≥3 = *y values* ≥3

Inner Grid, IG = Grid - PD - A - A² = all grid values inside the BLUE

Strict Inner Grid, SIG = IG - 1st Diagonal = contains no primes

Strict Inner Grid ODDs, SIGO = SIG ODDs only = contains no primes

Strict Inner Grid ODDs + ODD Axis², SIGO(A²) = SIGO + A² = NP

PRIMES, P = 1st Diagonal - NP

1st Diagonal = *y values* ≥3 =
3,**5**,**7**,9,**11**,**13**,15,**17**,**19**,21,**23**,25,27,**29**,
31,33,35,**37**,39,**41**,**43**,45,**47**,49,…

The NP pattern defines the PRIMES

x = 1 (Lower: - *y*)
x = 1 (Upper: + *y*)
x = 2 (Lower: - *y*)
x = 2 (Upper: + *y*)
x = 3 (Lower: - *y*)
x = 3 (Upper: + *y*)
x = 4 (Lower: - *y*)
x = 4 (Upper: + *y*)
x = 5 (Lower: - *y*)
x = 5 (Upper: + *y*)
x = 6 (Lower: - *y*)
x = 6 (Upper: + *y*)
x = 7 (Lower: - *y*)
x = 7 (Upper: + *y*)
x = 8 (Lower: - *y*)
x = 8 (Upper: + *y*)
x = 9 (Lower: - *y*)
x = 9 (Upper: + *y*)
x = 10 (Lower: - *y*)
x = 10 (Upper: + *y*)
x = 11 (Lower: - *y*)
x = 11 (Upper: + *y*)

Each set of *x* values (Lower: -*y* and Upper: +*y*) forms a double-wide L-shaped path beginning just below the 1st Diagonal.

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See TABLE 31a4 for a *x*-base set listing of the NP values for each *y*.

line ↓	Axis # = x	PD # = x²	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
0	0	0	-1	-4	-9	-16	-25	-36	-49	-64	-81	-100	-121	-144	-169	-196	-225	-256	-289	-324	-361	-400	-441	-484	-529	-576	-625	-676	-729	-784	-841	-900	-961	-1024	-1089	-1156	-1225	-1296	-1369	-1444	-1521	-1600	-1681	-1764	-1849	-1936	-2025	-2116	-2209	-2304	-2401	-2500
1	1	1	1																																																		
2	2	4	3	4																																																	
3	3	9	8	5	9																																																
4	4	16	15	12	7	16																																															
5	5	25	24	21	16	9	25																																														
6	6	36	35	32	27	20	11	36																																													
7	7	49	48	45	40	33	24	13	49																																												
8	8	64	63	60	55	48	39	28	15	64																																											
9	9	81	80	77	72	65	56	45	32	17	81																																										
10	10	100	99	96	91	84	75	64	51	36	19	100																																									
11	11	121	120	117	112	105	96	85	72	57	40	21	121																																								
12	12	144	143	140	135	128	119	108	95	80	63	44	23	144																																							
13	13	169	168	165	160	153	144	133	120	105	88	69	48	25	169																																						
14	14	196	195	192	187	180	171	160	147	132	115	96	75	52	27	196																																					
15	15	225	224	221	216	209	200	189	176	161	144	125	104	81	56	29	225																																				
16	16	256	255	252	247	240	231	220	207	192	175	156	135	112	87	60	31	256																																			
17	17	289	288	285	280	273	264	253	240	225	208	189	168	145	120	93	64	33	289																																		
18	18	324	323	320	315	308	299	288	275	260	243	224	203	180	155	128	99	68	35	324																																	
19	19	361	360	357	352	345	336	325	312	297	280	261	240	217	192	165	136	105	72	37	361																																
20	20	400	399	396	391	384	375	364	351	336	319	300	279	256	231	204	175	144	111	76	39	400																															
21	21	441	440	437	432	425	416	405	392	377	360	341	320	297	272	245	216	185	152	117	80	41	441																														
22	22	484	483	480	475	468	459	448	435	420	403	384	363	340	315	288	259	228	195	160	123	84	43	484																													
23	23	529	528	525	520	513	504	493	480	465	448	429	408	385	360	333	304	273	240	205	168	129	88	45	529																												
24	24	576	575	572	567	560	551	540	527	512	495	476	455	432	407	380	351	320	287	252	215	176	135	92	47	576																											
25	25	625	624	621	616	609	600	589	576	561	544	525	504	481	456	429	400	369	336	301	264	225	184	141	96	49	625																										
26	26	676	675	672	667	660	651	640	627	612	595	576	555	532	507	480	451	420	387	352	315	276	235	192	147	100	51	676																									
27	27	729	728	725	720	713	704	693	680	665	648	629	608	585	560	533	504	473	440	405	368	329	288	245	200	153	104	53	729																								
28	28	784	783	780	775	768	759	748	735	720	703	684	663	640	615	588	559	528	495	460	423	384	343	300	255	208	159	108	55	784																							
29	29	841	840	837	832	825	816	805	792	777	760	741	720	697	672	645	616	585	552	517	480	441	400	357	312	265	216	165	112	57	841																						
30	30	900	899	896	891	884	875	864	851	836	819	800	779	756	731	704	675	644	611	576	539	500	459	416	371	324	275	224	171	116	59	900																					
31	31	961	960	957	952	945	936	925	912	897	880	861	840	817	792	765	736	705	672	637	600	561	520	477	432	385	336	285	232	177	120	61	961																				
32	32	1024	1023	1020	1015	1008	999	988	975	960	943	924	903	880	855	828	799	768	735	700	663	624	583	540	495	448	399	348	295	240	183	124	63	1024																			
33	33	1089	1088	1085	1080	1073	1064	1053	1040	1025	1008	989	968	945	920	893	864	833	800	765	728	689	648	605	560	513	464	413	360	305	248	189	128	65	1089																		
34	34	1156	1155	1152	1147	1140	1131	1120	1107	1092	1075	1056	1035	1012	987	960	931	900	867	832	795	756	715	672	627	580	531	480	427	372	315	256	195	132	67	1156																	
35	35	1225	1224	1221	1216	1209	1200	1189	1176	1161	1144	1125	1104	1081	1056	1029	1000	969	936	901	864	825	784	741	696	649	600	549	496	441	384	325	264	201	136	69	1225																
36	36	1296	1295	1292	1287	1280	1271	1260	1247	1232	1215	1196	1175	1152	1127	1100	1071	1040	1007	972	935	896	855	812	767	720	671	620	567	512	455	396	335	272	207	140	71	1296															
37	37	1369	1368	1365	1360	1353	1344	1333	1320	1305	1288	1269	1248	1225	1200	1173	1144	1113	1080	1045	1008	969	928	885	840	793	744	693	640	585	528	469	408	345	280	213	144	73	1369													
38	38	1444	1443	1440	1435	1428	1419	1408	1395	1380	1363	1344	1323	1300	1275	1248	1219	1188	1155	1120	1083	1044	1003	960	915	868	819	768	715	660	603	544	483	420	355	288	219	148	75	1444											
39	39	1521	1520	1517	1512	1505	1496	1485	1472	1457	1440	1421	1400	1377	1352	1325	1296	1265	1232	1197	1160	1121	1080	1037	992	945	896	845	792	737	680	621	560	497	432	365	296	225	152	77	1521									
40	40	1600	1599	1596	1591	1584	1575	1564	1551	1536	1519	1500	1479	1456	1431	1404	1375	1344	1311	1276	1239	1200	1159	1116	1071	1024	975	924	871	816	759	700	639	576	511	444	375	304	231	156	79	1600							
41	41	1681	1680	1677	1672	1665	1656	1645	1632	1617	1600	1581	1560	1537	1512	1485	1456	1425	1392	1357	1320	1281	1240	1197	1152	1105	1056	1005	952	897	840	781	720	657	592	525	456	385	312	237	160	81	1681						
42	42	1764	1763	1760	1755	1748	1739	1728	1715	1700	1683	1664	1643	1620	1595	1568	1539	1508	1475	1440	1403	1364	1323	1280	1235	1188	1139	1088	1035	980	923	864	803	740	675	608	539	468	395	320	243	164	83	1764				
43	43	1849	1848	1845	1840	1833	1824	1813	1800	1785	1768	1749	1728	1705	1680	1653	1624	1593	1560	1525	1488	1449	1408	1365	1320	1273	1224	1173	1120	1065	1008	949	888	825	760	693	624	553	480	405	328	249	168	85	1849		
44	44	1936	1935	1932	1927	1920	1911	1900	1887	1872	1855	1836	1815	1792	1767	1740	1711	1680	1647	1612	1575	1536	1495	1452	1407	1360	1311	1260	1207	1152	1095	1036	975	912	847	780	711	640	567	492	415	336	255	172	87	1936	
45	45	2025	2024	2021	2016	2009	2000	1989	1976	1961	1944	1925	1904	1881	1856	1829	1800	1769	1736	1701	1664	1625	1584	1541	1496	1449	1400	1349	1296	1241	1184	1125	1064	1001	936	869	800	729	656	581	504	425	344	261	176	89	2025	
46	46	2116	2115	2112	2107	2100	2091	2080	2067	2052	2035	2016	1995	1972	1947	1920	1891	1860	1827	1792	1755	1716	1675	1632	1587	1540	1491	1440	1387	1332	1275	1216	1155	1092	1027	960	891	820	747	672	595	516	435	352	267	180	91	2116
47	47	2209	2208	2205	2200	2193	2184	2173	2160	2145	2128	2109	2088	2065	2040	2013	1984	1953	1920	1885	1848	1809	1768	1725	1680	1633	1584	1533	1480	1425	1368	1309	1248	1185	1120	1053	984	913	840	765	688	609	528	445	360	273	184	93	2209
48	48	2304	2303	2300	2295	2288	2279	2268	2255	2240	2223	2204	2183	2160	2135	2108	2079	2048	2015	1980	1943	1904	1863	1820	1775	1728	1679	1628	1575	1520	1463	1404	1343	1280	1215	1148	1079	1008	935	860	783	704	623	540	455	368	279	188	95	2304
49	49	2401	2400	2397	2392	2385	2376	2365	2352	2337	2320	2301	2280	2257	2232	2205	2176	2145	2112	2077	2040	2001	1960	1917	1872	1825	1776	1725	1672	1617	1560	1501	1440	1377	1312	1245	1176	1105	1032	957	880	801	720	637	552	465	376	285	192	97	2401
50	50	2500	2499	2496	2491	2484	2475	2464	2451	2436	2419	2400	2379	2356	2331	2304	2275	2244	2211	2176	2139	2100	2059	2016	1971	1924	1875	1824	1771	1716	1659	1600	1539	1476	1411	1344	1275	1204	1131	1056	979	900	819	736	651	564	475	384	291	196	99	2500

Table 31a6 +50x 50

• To grow PD Col, select and expand to the bottom and then fill left column by autofill, PD column will auto fill from this.
$'PD # = x2'–D$2 is formula for expanding Columns,drag across to autofill formula on grid. Drag down to autofill remaining cells below.
Here the resulting PD=Blue 0. Replace these with the actual PD values from Col. C.
One can make a 200x200 BIM, by adding columns out to x² - 40000, i.e., Axis Column 200. Axis Column 200.

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