Correlation in Natural Numbers

1- For each number X in set of Odd natural numbers {1,3,5,7,9,11, 13, 15, ...}

$$1 = 3 + (-2)$$

$$3 = 3 + 0$$

$$5 = 3 + 2$$

$$7 = 3 + 4$$

$$9 = 3 + 6$$

$$11=3+8$$

$$13=3+10$$

$$15 = 3 + 12$$

2- For each number X in set of Even natural numbers {2,4,6,8,10,12, ...}

$$Y = 3 + (Odd number) = 3 + (X - 3)$$

$$2 = 3 + (-1)$$

$$6 = 3 + 3$$

$$8 = 3 + 5$$

$$10=3+7$$

$$12=3+9$$

3- Any even number ends by 2 as last digit, if we added 3 to this number, the number will be divisible by 5.

4- Any even number ends by 4 as last digit, if we added 3 to this number, the result will be number ends by 7

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4 + 3, 14 + 3, 34+3, 1764+3, ...
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5- Any even number ends by 6 as last digit, if we added 3 to this number, the result will be number ends with 9

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6 + 3, 16 + 3, 26 + 3, 1546 + 3, ......
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6- Any Even number Ends by 8 as last digit, if we added 3 to this number, the result will be number ends by 1

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8+ 3, 18+3, 48+3, 68+3, 1758+3, .....
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7- Any Even number Ends by 0 as last digit, if we added 3 to this number, the result will be number ends by 3

0+3, 10+3, 50+3, 130+3, 13450+3,

8- For any number X0

$$N0 = X0 - 3$$

Xi = Next number divisible by X0 at position i

$$Xi = N0 + (1 + 2 * X0 * I) + 3$$

And Xi / X0 = Index of the number in this odd number SET {1,3,5,7,9,11,13,15, 17, ...}

For X0 = 17

N0 = 14

The next 7th number divisible by 17 will be

X7 = 14 + (1 + 2 * 17 * 7) + 3 = 255

X17/X0 = 255 / 17 = 15, which is the 8th number in the odd number Set

For X0 = 13

N0 = 10

The next 6th number divisible by 13 will be

X6 = 10 + (1 + 2 * 13 * 6) + 3 = 169

X17/X0 = 169/13 = 13, which is the 7th number in the odd number Set

For X0= 51

N0 = 48

The next 3rd number divisible by 51 will be

$$X3 = 48 + (1 + 2 * 51 * 3) + 3 = 357$$

X3/X0 = 357/51 = 7, which is the 4th number in the odd number Set

Based on this rule

$$[Xi = X0 + 2 * X0 * i + 1]$$

Xi will be any odd number at position i, and X0 will be our Prime number if no previous number Xi = this X0 where $I = \{-1, -2, -3, -4, \}$

9- I = Odd Number Set



10- Square of any number I, in the odd number Set, will be the ith number divisible by i And at position (i * 2 + 1) of the number in the odd number Set.

 $I = \{3,5,7,9,11,13,15,...\}$ and positions = $\{1,2,3,4,5,6,7,8,...\}$

Then square of 5 will be the 5th number divisible by 5

The square of 7 will be the 7th number divisible by 7 The square of 9 will be the 9th number divisible by 9

11- Correlation table

Numbers in gray in diagonal are squares of = $(N^2 - 3)$

Numbers at each column i = (Ni-3), which is the ith number divisible by N

Numbers that have similar values inside the I columns are factors of (Cell value + 3) and the factors are N value at each row.

For Example [42] then Xi = [42+3] = [45]

Based on I = {3,5,7,9,11,13,15,17,19,} and position = {1,2,3,4,5,6,7,8, 9, ...}

The 7^{th} number divisible by 3, which is 15, and 15 * 3 = 45

The 4^{th} number divisible by 5, which is 9, and 5 * 9 = 45

The 2^{nd} number divisible by 9, which is 5, and 9 * 5 = 45

The 1^{st} number divisible by 15, which is 3, and 15 * 3 = 45

Position	N	N0	Distance/repeat	l1=	12=	13=	14=	15=	16=	17
		=	frequency =	N0+1*	N0+2*	N0+3*	N0+4*	N0+5*	N0+6*	
		N-3	N*2	2*N	2 *N	2 *N	2 * N	2 *N	2 *N	
				Step=6	Step=10	Step=14	Step=18	Step=22	Step=26	Step=30
				{3}	{5}	{7}	{9}	{11}	{13}	{15}
1	3	0	6	6	<mark>12</mark>	<mark>18</mark>	<mark>24</mark>	<mark>30</mark>	<mark>36</mark>	42)
2	5	2	10	<mark>12</mark>	22	<mark>32</mark>	42)	<mark>52</mark>	<mark>62</mark>	<mark>72</mark>
3	7	4	14	<mark>18</mark>	<mark>32</mark>	46	<mark>60</mark>	<mark>74</mark>	88	102
4	9	6	18	<mark>24</mark>	42)	<mark>60</mark>	78	<mark>96</mark>	114	<mark>132</mark>
5	11	8	22	<mark>30</mark>	<mark>52</mark>	<mark>74</mark>	<mark>96</mark>	118	140	162
6	13	10	26	<mark>36</mark>	<mark>62</mark>	88	114	140	166	192
7	15	12	30	42)	<mark>72</mark>	102	<mark>132</mark>	162	192	222
8	17	14	34	48	<mark>82</mark>	116	<mark>150</mark>	184	218	252
9	19	16	38	<mark>54</mark>	<mark>92</mark>	130	<mark>168</mark>	206	244	282
10	21	18	42	<mark>60</mark>	<mark>102</mark>	<mark>144</mark>	<mark>186</mark>	228	270	312
11	23	20	46	<mark>66</mark>	<mark>112</mark>	<mark>158</mark>	<mark>204</mark>	250	296	342
12	25	22	50	<mark>72</mark>	<mark>122</mark>	172	<mark>222</mark>	272	322	372
13	27	24	54	<mark>78</mark>	<mark>132</mark>	<mark>186</mark>	<mark>240</mark>	294	348	402
14	29	26	58	<mark>84</mark>	<mark>142</mark>	<mark>200</mark>	<mark>258</mark>	316	374	432
15	31	28	62	<mark>90</mark>	<mark>152</mark>	214	<mark>276</mark>	338	400	462
16	33	30	66	<mark>96</mark>	<mark>162</mark>	<mark>228</mark>	<mark>294</mark>	360	426	492
17	35	32	70	102	<mark>172</mark>	242	<mark>312</mark>	382	452	522
18	37	34	74	<mark>108</mark>	<mark>182</mark>	<mark>256</mark>	<mark>330</mark>	404	478	552
19	39	36	78	114	<mark>192</mark>	<mark>270</mark>	<mark>348</mark>	426	504	582
20	41	38	82	<mark>120</mark>	<mark>202</mark>	<mark>284</mark>	<mark>366</mark>	448	530	612
21	43	40	86	<mark>126</mark>	<mark>212</mark>	<mark>298</mark>	<mark>384</mark>	470	556	642
22	45	(42)	90	132	<mark>222</mark>	<mark>312</mark>	<mark>402</mark>	492	582	672
23	47	44	94	138	<mark>232</mark>	<mark>326</mark>	<mark>420</mark>	514	608	702

24	49	46	98	<mark>144</mark>	<mark>242</mark>	340	<mark>438</mark>	536	634	732
25	51	48	102	150	<mark>252</mark>	<mark>354</mark>	<mark>456</mark>	558	660	762
26	53	50	106	156	<mark>262</mark>	368	<mark>476</mark>	580	686	792
27	55	52	110	162	<mark>272</mark>	382	<mark>492</mark>	602	712	822
28	57	54	114	168	<mark>282</mark>	396	<mark>510</mark>	624	738	852
29	59	56	118	174	<mark>292</mark>	410	<mark>528</mark>	646	764	882
30	61	58	122	180	<mark>302</mark>	<mark>424</mark>	<mark>546</mark>	668	790	912
31	63	60	126	186	<mark>312</mark>	438	<mark>564</mark>	690	816	942
32	65	62	130	192	<mark>322</mark>	452	<mark>582</mark>	712	842	972
33	67	64	134	198	332	466	600	734	868	1002
34	69	66	138	204	342	480	618	756	894	1032
35	71	68	142	210	352	494	636	778	920	1062
36	73	70	146	216	362	508	654	800	946	1092
37	75	72	150	222	372	522	672	822	972	1122
38	77	74	154	228	382	536	690	844	998	1152
39	79	76	158	234	392	550	708	866	1024	1182
40	81	78	162	240	402	564	726	888	1050	1212
41	83	80	166	246	412	578	744	910	1076	1242
42	85	82	170	252	422	592	762	932	1102	1272
43	87	84	174	258	432	606	780	954	1128	1302
44	89	86	178	264	442	620	798	976	1154	1332
45	91	88	182	270	452	634	816	998	1180	1362
46	93	90	186	276	462	648	834	1020	1206	1392
47	95	92	190	282	472	662	852	1042	1232	1422
48	97	94	194	288	482	676	870	1064	1258	1452
49	99	96	198	294	492	690	888	1086	1284	1482
50	101	98	202	300	502	704	906	1108	1310	1512
51	103	100	206	306	512	718	924	1130	1336	1542
52	105	102	210	312	522	732	942	1152	1362	1572