

Prime Number Prediction Formula

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Abstract

The current mathematical consensus is that Prime numbers, those integers only divisible by one and themselves, follow no standard predictable pattern.

This body of work provides the first formula to predict prime numbers. In doing so, this proves that prime numbers follow a pattern, and proves Goldbach's Conjecture to be true.

This is done by forming an algorithm that considers all even integers, systematically eliminates some, and the resulting subset of even integers produces all prime numbers once three is subtracted from each.

Introduction

Imagine the concept of every possible even integer. Adding three to any prime number will result in one of these even integers. However, not every one of these even integers minus three will result in a prime number. A formula to display all possible prime numbers can therefore be assembled by identifying and eliminating those even integers that do not result in a prime number after subtracting three.

This can be done with an algorithmic set of strands. These strands continue indefinitely. When the results of these strands are combined, they display all even integers that will, and will not result in a prime number (after subtracting three). In other words, the strands provide us the set of even integers to be eliminated and display all prime numbers.

Body of Work

We begin by building strands at the number 6. Six is the first possible even integer to build a strand upon, as it would not be possible for a strand to gain significance before that point. The definition of significance in this context is detailed on page 12.

Beginning with the even integer 6, the strands can be formed as follows. Each strand starts at an even integer, and will skip by an even integer. We then calculate the difference between that 'skip by' number and the starting number. The difference will follow an even number pattern (0, 2, 4, 6, 8, 10, etc). In turn, this even number pattern indicates where to start the next strand.

Thus, we begin with 6, skipping by 6. This strand will not eliminate the number 6, as 6 minus 3 is 3 which is a prime number. The difference of the skips by number (6) minus the starting number (6) in this strand is zero. Each "skips by" will increase by 4, and the starting point will increase by 2. The difference will therefore climb by 2 each strand as well. The pattern of strands will look as follows:

Skips by	Starts with	Difference
6	6	0
10	8	2
14	10	4
18	12	6
22	14	8

Recall that we are looking at all even integers, and these strands will indicate which even integers we can eliminate. Plotting these strands will look as follows, where blacked out even integers indicate those even integers to be eliminated.

Strand 1

Starts with 6

Skips by 6

Skips by	Starts with	Difference
6	6	0

1
Starts with 6
(Not including 6)

2
Skips by 6

3
All blacked out
even integers
are eliminated

2		190	284		472	566		754	
4	98		286	380		568	662		
6	100	194		382	476		664	758	
8		196	290		478	572		760	
10	104		292	386		574	668		
	106	200		388	482		670	764	
14		202	296		484	578		766	
16	110		298	392		580	674		
	112	206		394	488		676	770	
20		208	302		490	584		772	
22	116		304	398		586	680		
	118	212		400	494		682	776	
26		214	308		496	590		778	
28	122		310	404		592	686		
	124	218		406	500		688	782	
32		220	314		502	596		784	
34	128		316	410		598	692		
	130	224		412	506		694	788	
38		226	320		508	602		790	
40	134		322	416		604	698		
	136	230		418	512		700	794	
44		232	326		514	608		796	
46	140		328	422		610	704		
	142	236		424	518		706	800	
50		238	332		520	614		802	
52	146		334	428		616	710		
	148	242		430	524		712	806	
56		244	338		526	620		808	
58	152		340	434		622	716		
	154	248		436	530		718	812	
62		250	344		532	626		814	
64	158		346	440		628	722		
	160	254		442	536		724	818	
68		256	350		538	632		820	
70	164		352	446		634	728		
	166	260		448	542		730	824	
74		262	356		544	638		826	
76	170		358	452		640	734		
	172	266		454	548		736	830	
80		268	362		550	644		832	
82	176		364	458		646	740		
	178	272		460	554		742	836	
86		274	368		556	650		838	
88	182		370	464		652	746		
	184	278		466	560		748	842	
92		280	374		562	656		844	
94	188		376	470		658	752		

This is the first of an infinite possibility of strands, each strand continuing infinitely. When combined, the strands continue to eliminate even integers. This will be further illustrated below. All remaining even integers not eliminated by these strands reveal all prime numbers after subtracting 3 from each remaining even integer. An infinite number of strands would display all primes.

Next, the patterns will be displayed for the subsequent 3 strands, followed by an overlapped mapping of the strands displaying all remaining even integers.

Strand 2

Starts with 8

Skips by 10

Skips by	Starts with	Difference
6	6	0
10	8	2

1

Starts with 8
(Not including 8)

2

Skips by 10

3

All blacked out
even integers
are eliminated

2	96	190	284		472	566	660	754
4		192	286	380	474		662	756
6	100	194		382	476	570	664	
8	102	196	290	384		572	666	760
10	104		292	386	480	574		762
12	106	200	294		482	576	670	764
14		202	296	390	484		672	766
16	110	204		392	486	580	674	
	112	206	300	394		582	676	770
20	114		302	396	490	584		772
22	116	210	304		492	586	680	774
24		212	306	400	494		682	776
26	120	214		402	496	590	684	
	122	216	310	404		592	686	780
30	124		312	406	500	594		782
32	126	220	314		502	596	690	784
34		222	316	410	504		692	786
36	130	224		412	506	600	694	
	132	226	320	414		602	696	790
40	134		322	416	510	604		792
42	136	230	324		512	606	700	794
44		232	326	420	514		702	796
46	140	234		422	516	610	704	
	142	236	330	424		612	706	800
50	144		332	426	520	614		802
52	146	240	334		522	616	710	804
54		242	336	430	524		712	806
56	150	244		432	526	620	714	
	152	246	340	434		622	716	810
60	154		342	436	530	624		812
62	156	250	344		532	626	720	814
64		252	346	440	534		722	816
66	160	254		442	536	630	724	
	162	256	350	444		632	726	820
70	164		352	446	540	634		822
72	166	260	354		542	636	730	824
74		262	356	450	544		732	826
76	170	264		452	546	640	734	
	172	266	360	454		642	736	830
80	174		362	456	550	644		832
82	176	270	364		552	646	740	834
84		272	366	460	554		742	836
86	180	274		462	556	650	744	
	182	276	370	464		652	746	840
90	184		372	466	560	654		842
92	186	280	374		562	656	750	844
94		282	376	470	564		752	846

Strand 3

Starts with 10

Skips by 14

Skips by	Starts with	Difference
6	6	0
10	8	2
14	10	4

1

Starts with 10
(Not including 10)

2

Skips by 14

3

All blacked out
even integers
are eliminated

2	96	190	284	378		566	660	754
4	98		286	380	474	568	662	756
6	100	194	288	382	476		664	758
8	102	196		384	478	572	666	760
10	104	198	292	386	480	574		762
12	106	200	294		482	576	670	764
14		202	296	390	484	578	672	
16	110	204	298	392		580	674	768
18	112		300	394	488	582	676	770
20	114	208	302	396	490		678	772
22	116	210		398	492	586	680	774
	118	212	306	400	494	588		776
26	120	214	308		496	590	684	778
28		216	310	404	498	592	686	
30	124	218	312	406		594	688	782
32	126		314	408	502	596	690	784
34	128	222	316	410	504		692	786
36	130	224		412	506	600	694	788
	132	226	320	414	508	602		790
40	134	228	322		510	604	698	792
42		230	324	418	512	606	700	
44	138	232	326	420		608	702	796
46	140		328	422	516	610	704	798
48	142	236	330	424	518		706	800
50	144	238		426	520	614	708	802
	146	240	334	428	522	616		804
54	148	242	336		524	618	712	806
56		244	338	432	526	620	714	
58	152	246	340	434		622	716	810
60	154		342	436	530	624	718	812
62	156	250	344	438	532		720	814
64	158	252		440	534	628	722	816
	160	254	348	442	536	630		818
68	162	256	350		538	632	726	820
70		258	352	446	540	634	728	
72	166	260	354	448		636	730	824
74	168		356	450	544	638	732	826
76	170	264	358	452	546		734	828
78	172	266		454	548	642	736	830
	174	268	362	456	550	644		832
82	176	270	364		552	646	740	834
84		272	366	460	554	648	742	
86	180	274	368	462		650	744	838
88	182		370	464	558	652	746	840
90	184	278	372	466	560		748	842
92	186	280		468	562	656	750	844
	188	282	376	470	564	658		846

Strand 4

Starts with 12

Skips by 18

Skips by	Starts with	Difference
6	6	0
10	8	2
14	10	4
18	12	6

1

Starts with 12
(Not including 12)

2

Skips by 18

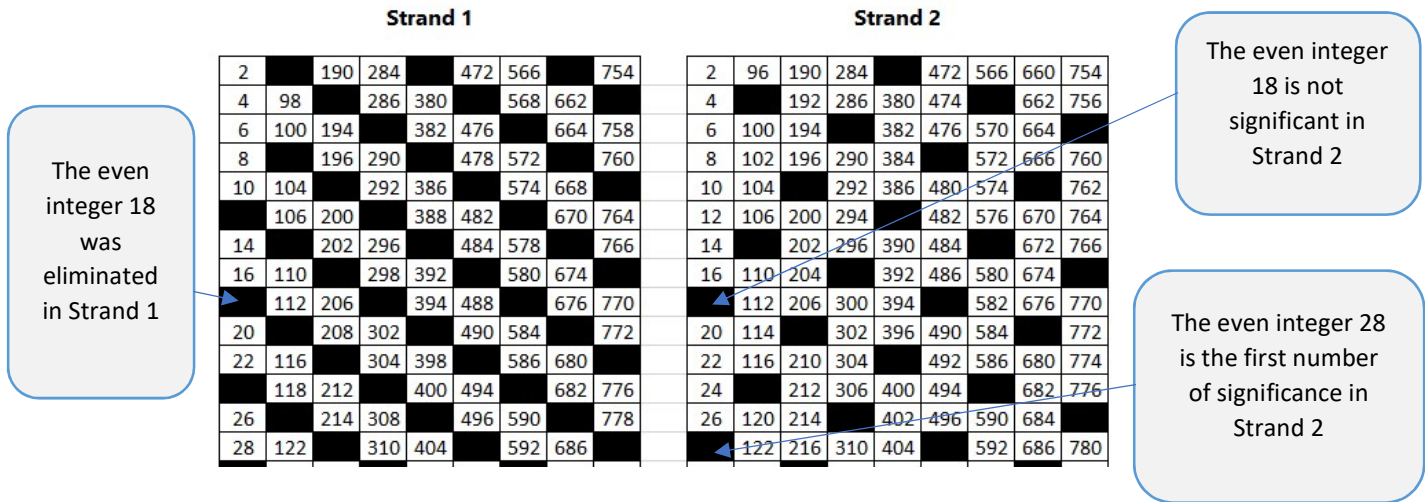
3

All blacked out
even integers
are eliminated

2	96	190	284	378	472	566		754
4	98		286	380	474	568	662	756
6	100	194	288	382	476		664	758
8		196	290	384	478	572	666	760
10	104	198	292	386		574	668	762
12	106	200	294	388	482	576	670	764
14	108	202	296		484	578	672	766
16	110	204	298	392	486	580	674	
18	112	206		394	488	582	676	770
20	114	208	302	396	490	584		772
22	116		304	398	492	586	680	774
24	118	212	306	400	494		682	776
26		214	308	402	496	590	684	778
28	122	216	310	404		592	686	780
	124	218	312	406	500	594	688	782
32	126	220	314		502	596	690	784
34	128	222	316	410	504	598	692	
36	130	224		412	506	600	694	788
38	132	226	320	414	508	602		790
40	134		322	416	510	604	698	792
42	136	230	324	418	512		700	794
44		232	326	420	514	608	702	796
46	140	234	328	422		610	704	798
	142	236	330	424	518	612	706	800
50	144	238	332		520	614	708	802
52	146	240	334	428	522	616	710	
54	148	242		430	524	618	712	806
56	150	244	338	432	526	620		808
58	152		340	434	528	622	716	810
60	154	248	342	436	530		718	812
62		250	344	438	532	626	720	814
64	158	252	346	440		628	722	816
	160	254	348	442	536	630	724	818
68	162	256	350		538	632	726	820
70	164	258	352	446	540	634	728	
72	166	260		448	542	636	730	824
74	168	262	356	450	544	638		826
76	170		358	452	546	640	734	828
78	172	266	360	454	548		736	830
80		268	362	456	550	644	738	832
82	176	270	364	458		646	740	834
	178	272	366	460	554	648	742	836
86	180	274	368		556	650	744	838
88	182	276	370	464	558	652	746	
90	184	278		466	560	654	748	842
92	186	280	374	468	562	656		844
94	188		376	470	564	658	752	846

Significance

The strands continue infinitely in this manner, and more can be found in the appendix. In each strand, significance occurs with the first eliminated even integer not to have been previously eliminated by preceding strands. Note that in each strand, it takes increasingly more time for significance to occur.



For the purposes of thoroughly illustrating this concept, this document will include the strands up to the strand that starts with 32, and skips by 58. This distance provides a complete example where all even integers up to 846 have gained significance according to the above definition. The below grid displays the complete strand pattern to 846. The strands themselves can all be found in the appendix.

Skips by	Starts with	Difference
6	6	0
10	8	2
14	10	4
18	12	6
22	14	8
26	16	10
30	18	12
34	20	14
38	22	16
42	24	18
46	26	20
50	28	22
54	30	24
58	32	26

When strands have been completed so that significance has been gained to the desired point, all appropriate even integers will have been eliminated.

Significance will be gained at the following points:

2	96	190	284	378	472	566	660	754
4	98	192	286	380	474	568	662	756
6	100	194	288	382	476	570	664	758
8	102	196	290	384	478	572	666	760
10	104	198	Strand 8	386	480	574	668	762
Strand 1	106	200	294	388	482	576	670	764
14	108	202	296	390	484	578	672	766
16	110	204	298	392	486	580	674	768
18	112	206	300	394	488	582	676	770
20	114	208	302	396	490	584	678	772
22	116	210	304	398	492	586	680	774
24	118	212	306	400	494	588	682	776
26	120	214	308	402	496	590	684	778
Strand 2	122	216	310	404	498	592	686	780
30	Strand 5	218	312	406	500	594	688	782
32	126	220	314	408	502	596	690	784
34	128	222	316	410	504	598	692	786
36	130	224	318	412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134	Strand 7	322	416	510	604	698	792
42	136	230	324	418	512	606	700	794
44	138	232	326	420	514	608	702	796
46	140	234	328	422	516	610	704	798
48	142	236	330	424	518	612	706	800
50	144	238	332	426	520	614	708	802
Strand 3	146	240	334	428	522	616	710	804
54	148	242	336	430	524	618	712	806
56	150	244	338	432	526	620	714	808
58	152	246	340	434	528	622	716	810
60	154	248	342	436	530	624	718	812
62	156	250	344	438	Strand 11	626	720	814
64	158	252	346	440	534	Strand 12	722	816
66	160	254	348	442	536	630	724	818
68	162	256	350	Strand 10	538	632	726	820
70	164	258	352	446	540	634	728	822
72	166	260	354	448	542	636	730	824
74	168	262	356	450	544	638	Strand 13	826
76	170	264	358	452	546	640	734	828
78	Strand 6	266	360	454	548	642	736	830
80	174	268	362	456	550	644	738	832
82	176	270	Strand 9	458	552	646	740	834
Strand 4	178	272	366	460	554	648	742	836
86	180	274	368	462	556	650	744	838
88	182	276	370	464	558	652	746	840
90	184	278	372	466	560	654	748	842
92	186	280	374	468	562	656	750	Strand 14
94	188	282	376	470	564	658	752	846

Once the patterns of all strands are overlaid, the remaining even integers display all prime numbers after 3 is subtracted (up to 839 for this example) :

All Remaining Even Integers

(Strands 1-14 overlapped)

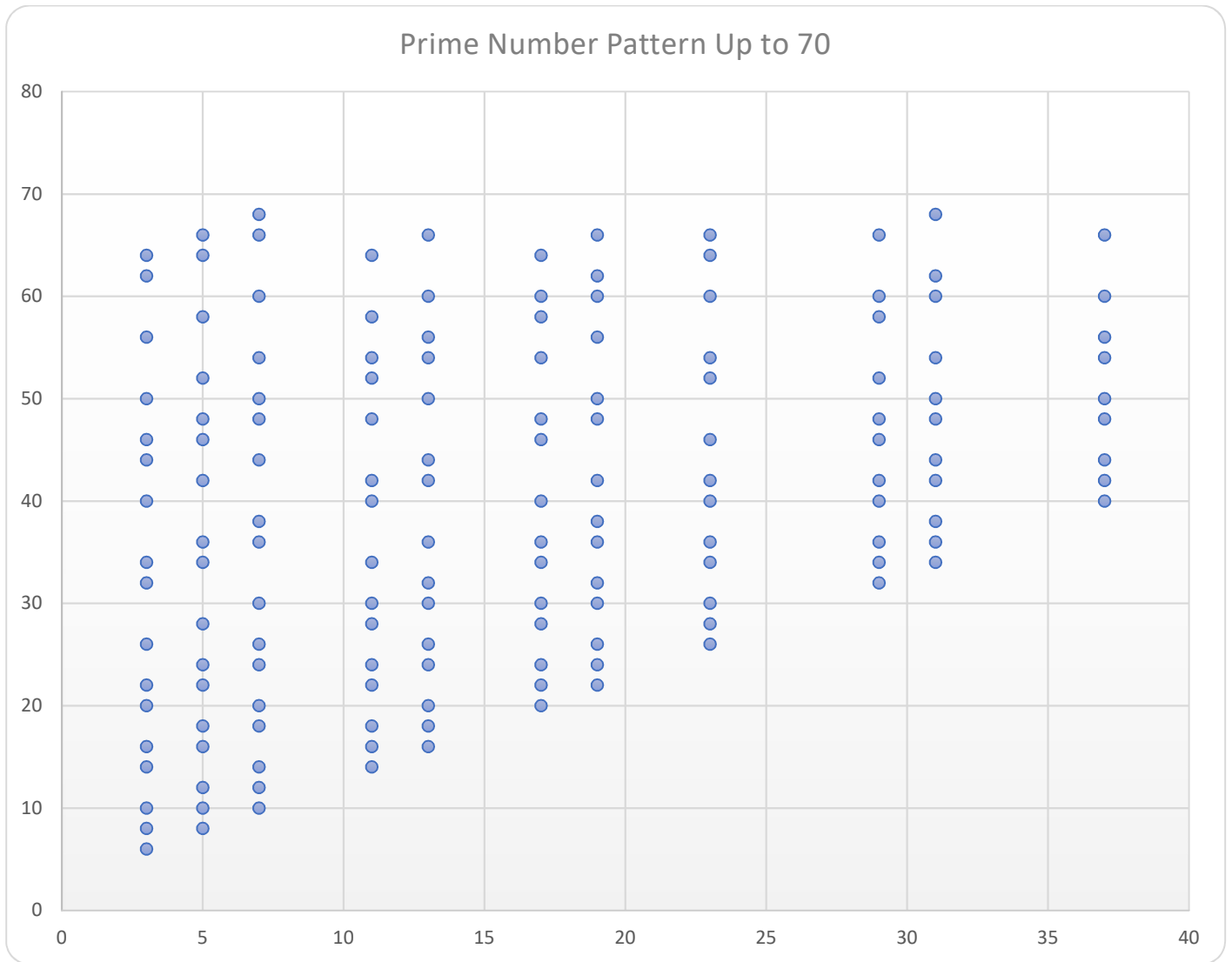
2			284			566		754
4			286				662	
6	100	194		382			664	
8		196			572			760
10	104		386		574			
	106	200		482				764
14		202	296					
16	110		392		580			
	112						676	
20			490					772
22	116						680	
			400	494				776
26		214			590			
			310	404				686
32			314		502	596		
34			316					
	130			412	506		694	
		226	320			602		790
40	134					604		
		230			512			
44		232						
46	140			422		610	704	
	142	236		424				800
50								
			334			616		
		242			524		712	
56		244			526	620		
	152		340	434		622		
	154			436				812
62								814
64							722	
	160	254		442				
			350					
70			352	446		634		
	166	260					730	824
74			356		544			826
76	170			452				
		266					736	830
			362		550	644		832
82	176					646		
		272		460			742	
86		274				650		
	182		370	464			746	
	184			466	560			842
92		280				656		
			376	470				

All Prime Numbers

(Same as on the left, subtract 3 from each)

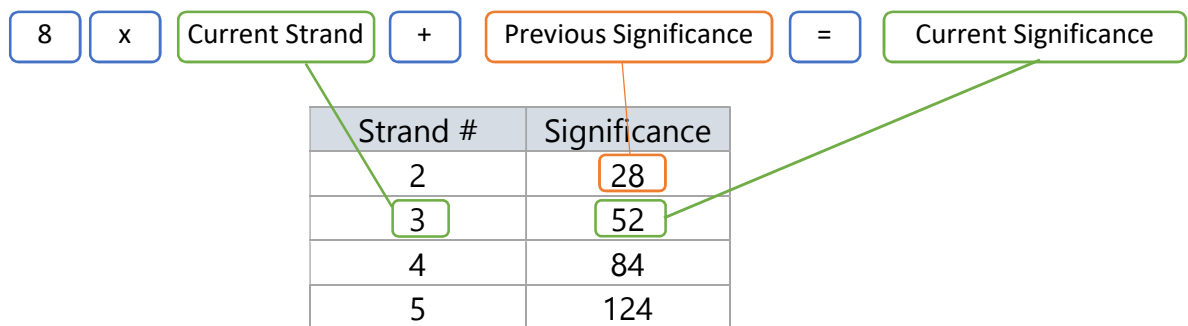
2			281			563		751
4-3=1			283				659	
3	97	191		379			661	
5		193				569		757
7	101		383		571			
	103	197		479				761
11		199	293					
13	107		389		577			
	109						673	
17			487					769
19	113						677	
			397	491				773
23		211			587			
			307	401			683	
29			311		499	593		
31			313					
	127			409	503		691	
		223	317			599		787
37	131					601		
		227			509			
41		229						
43	137			419		607	701	
	139	233		421				797
47								
			331			613		
		239			521		709	
53		241			523	617		
	149		337	431		619		
	151			433				809
59								811
61							719	
	157	251		439				
			347					
67			349	443		631		
	163	257					727	821
71			353		541			823
73	167			449				
		263					733	827
			359		547	641		829
79	173					643		
		269		457			739	
83		271				647		
	179		367	461			743	
	181			463	557			839
89		277				653		
			373	467				

This body of work has definitively shown that a pattern exists among prime numbers. The pattern that appears vertically above the 3 on an X and Y axis can be placed horizontally along the X axis, and consequently map all primes. Additionally, each prime number on the X-axis individually displays the same pattern on each vertical axis.



Conclusion

Prime numbers can be predicted to any given point, based on when each strand becomes significant. In the above body of work, all prime numbers have been predicted up to 846. This can be done up to any even integer by understanding how many strands are required. Multiplying the current strand 8 times, then adding the previous strand's significance point will always yield the current strand's significance point.



Utilizing the above approach, the following formula will predict all prime numbers:

$$P = ((2m) - ((2k - (k-3) > (k-3))) + (\overline{2k})) - 3$$

Where:

- k = odd integers
- $2m$, where m is an integer (*therefore $2m$ equals all evens*).
- $2k$ represents how many to 'skip by'
- $(\overline{2k})$ is skipping by that same number infinitely
- $2k - (k-3)$ is the starting point

The first strand of this body of work can be used as an example. If $k = 3$, then $2(3) =$ skipping distance. $2(3)-(3-3) =$ starting point. This provides “Skip by 6 starting with 6-0”. $2(k)-(k-3)>(k-3)$ is the starting point, which is greater than, not including, the starting point.

Proof for Goldbach’s Conjecture

Goldbach’s Conjecture states that every even is the sum of two prime numbers. The pattern that determines the prime numbers is some even integers minus three. The rest of the evens are eliminated.

Overlapping the pattern onto itself, beginning each time with the even integer that will subtract the next consecutive prime to equal another prime, eliminates all evens.

Either this total elimination means that no even greater than or equal to 6 is a sum of two primes, or all evens greater than or equal to 6 are a sum of two primes.

Since 8 is a sum of two primes and 8 is greater than 6, we know it must be true that all evens greater than or equal to 6 are a sum of two primes.

Appendix

The first four strands and their patterns were displayed in the body of work. The remaining strands used to compile the “All Prime Numbers” figure are included below for reference.

Skips by	Starts with	Difference
6	6	0
10	8	2
14	10	4
18	12	6
22	14	8
26	16	10
30	18	12
34	20	14
38	22	16
42	24	18
46	26	20
50	28	22
54	30	24
58	32	26

Starts with 14, skips by 22

2	96		284	378	472	566	660	754
4	98	192	286	380	474	568	662	756
6	100	194	288	382		570	664	758
8		196	290	384	478	572	666	760
10	104	198	292	386	480	574	668	
12	106	200	294		482	576	670	764
14	108	202	296	390	484	578	672	766
16	110	204	298	392	486	580		768
18	112	206		394	488	582	676	770
20	114	208	302	396	490	584	678	772
22	116	210	304	398	492		680	774
24	118		306	400	494	588	682	776
26	120	214	308	402	496	590	684	778
28	122	216	310	404		592	686	780
30		218	312	406	500	594	688	782
32	126	220	314	408	502	596	690	
34	128	222	316		504	598	692	786
	130	224	318	412	506	600	694	788
38	132	226	320	414	508	602		790
40	134	228		416	510	604	698	792
42	136	230	324	418	512	606	700	794
44	138	232	326	420	514		702	796
46	140		328	422	516	610	704	798
48	142	236	330	424	518	612	706	800
50	144	238	332	426		614	708	802
52		240	334	428	522	616	710	804
54	148	242	336	430	524	618	712	
56	150	244	338		526	620	714	808
	152	246	340	434	528	622	716	810
60	154	248	342	436	530	624		812
62	156	250		438	532	626	720	814
64	158	252	346	440	534	628	722	816
66	160	254	348	442	536		724	818
68	162		350	444	538	632	726	820
70	164	258	352	446	540	634	728	822
72	166	260	354	448		636	730	824
74		262	356	450	544	638	732	826
76	170	264	358	452	546		734	828
78	172	266	360		548	642	736	830
	174	268	362	456	550	644	738	832
82	176	270	364	458	552	646		834
84	178	272		460	554	648	742	836
86	180	274	368	462	556	650	744	838
88	182	276	370	464	558		746	840
90	184		372	466	560	654	748	842
92	186	280	374	468	562	656	750	844
94	188	282	376	470		658	752	846

Starts with 16, skips by 26

2	96	190	284	378	472	566	660	754
4	98	192	286		474	568	662	756
6	100	194	288	382	476	570	664	758
8	102	196	290	384	478	572		760
10	104		292	386	480	574	668	762
12	106	200	294	388	482	576	670	764
14	108	202	296	390		578	672	766
16	110	204	298	392	486	580	674	768
18	112	206	300	394	488	582	676	
20	114	208		396	490	584	678	772
22	116	210	304	398	492	586	680	774
24	118	212	306	400	494		682	776
26		214	308	402	496	590	684	778
28	122	216	310	404	498	592	686	780
30	124	218	312		500	594	688	782
32	126	220	314	408	502	596	690	784
34	128	222	316	410	504	598		786
36	130		318	412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134	228	322	416		604	698	792
	136	230	324	418	512	606	700	794
44	138	232	326	420	514	608	702	
46	140	234		422	516	610	704	798
48	142	236	330	424	518	612	706	800
50	144	238	332	426	520		708	802
52		240	334	428	522	616	710	804
54	148	242	336	430	524	618	712	806
56	150	244	338		526	620	714	808
58	152	246	340	434	528	622	716	810
60	154	248	342	436	530	624		812
62	156		344	438	532	626	720	814
64	158	252	346	440	534	628	722	816
66	160	254	348	442		630	724	818
	162	256	350	444	538	632	726	820
70	164	258	352	446	540	634	728	
72	166	260		448	542	636	730	824
74	168	262	356	450	544	638	732	826
76	170	264	358	452	546		734	828
78		266	360	454	548	642	736	830
80	174	268	362	456	550	644	738	832
82	176	270	364		552	646	740	834
84	178	272	366	460	554	648	742	836
86	180	274	368	462	556	650		838
88	182		370	464	558	652	746	840
90	184	278	372	466	560	654	748	842
92	186	280	374	468		656	750	844
	188	282	376	470	564	658	752	846

Starts with 18, skips by 30

2	96	190	284		472	566	660	754
4	98	192	286	380	474	568	662	756
6	100	194		382	476	570	664	758
8	102	196	290	384	478	572	666	760
10	104		292	386	480	574	668	762
12	106	200	294	388	482	576	670	764
14		202	296	390	484	578	672	766
16	110	204	298	392	486	580	674	
18	112	206	300	394	488	582	676	770
20	114	208	302	396	490	584		772
22	116	210	304	398	492	586	680	774
24	118	212	306	400	494		682	776
26	120	214	308	402	496	590	684	778
28	122	216	310	404		592	686	780
30	124	218	312	406	500	594	688	782
32	126	220	314		502	596	690	784
34	128	222	316	410	504	598		786
36	130	224		412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134		322	416	510	604	698	792
42	136	230	324	418	512	606	700	794
44		232	326	420	514	608	702	796
46	140	234	328	422	516	610	704	
	142	236	330	424	518	612	706	800
50	144	238	332	426	520	614		802
52	146	240	334	428	522	616	710	804
54	148	242	336	430	524	618		806
56	150	244	338	432	526	620	714	808
58	152	246	340	434		622	716	810
60	154	248	342	436	530	624	718	812
62	156	250	344		532	626	720	814
64	158	252	346	440	534	628	722	816
66	160	254		442	536	630	724	818
68	162	256	350	444	538	632	726	820
70	164		352	446	540	634	728	822
72	166	260	354	448	542	636	730	824
74		262	356	450	544	638	732	826
76	170	264	358	452	546		734	828
	172	266	360	454	548	642	736	830
80	174	268	362	456	550	644		832
82	176	270	364		552	646	740	834
84	178	272	366	460	554	648	742	836
86	180	274	368	462	556	650		838
88	182	276	370	464	558	652	746	840
90	184		372	466	560	654	748	842
92	186	280	374	468		656	750	844
94	188	282	376	470	564	658	752	846

Starts with 20, skips by 34

2	96		284	378	472	566	660	754
4	98	192	286	380	474	568	662	756
6	100	194	288	382	476	570	664	758
8	102	196	290	384	478	572		760
10	104	198		386	480	574	668	762
12	106	200	294	388	482	576	670	764
14	108	202	296	390	484	578	672	766
16	110	204	298	392	486	580	674	
18	112	206	300		488	582	676	770
20	114	208	302	396	490	584	678	772
22	116	210	304	398	492	586	680	774
24	118	212	306	400	494	588	682	776
26	120	214	308	402		590	684	778
28		216	310	404	498	592	686	780
30	124	218	312	406	500	594	688	782
32	126	220	314	408	502	596	690	784
34	128	222	316	410	504		692	786
36	130		318	412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134	228	322	416	510	604	698	792
42	136	230	324	418	512	606		794
44	138	232		420	514	608	702	796
46	140	234	328	422	516	610	704	798
48	142	236	330	424	518	612		800
50	144	238	332	426	520	614	708	
52	146	240	334		522	616	710	804
	148	242	336	430	524	618	712	806
56	150	244	338	432	526	620	714	808
58	152	246	340	434	528	622	716	810
60	154	248	342	436		624	718	812
62		250	344	438	532	626	720	814
64	158	252	346	440	534	628	722	816
66	160	254	348	442	536	630	724	818
68	162	256	350	444	538		726	820
70	164		352	446	540	634	728	822
72	166	260	354	448	542	636	730	824
74	168	262	356	450	544	638	732	826
76	170	264	358	452	546	640		828
78	172	266		454	548	642	736	830
80	174	268	362	456	550	644	738	832
82	176	270	364	458	552	646	740	834
84	178	272	366	460	554	648	742	
86	180	274	368		556	650	744	838
	182	276	370	464	558	652	746	840
90	184	278	372	466	560	654	748	842
92	186	280	374	468	562	656	750	844
94	188	282	376	470		658	752	846

Starts with 22, skips by 38

2	96	190	284	378	472	566	660	754
4		192	286	380	474	568	662	756
6	100	194		382	476	570	664	758
8	102	196	290	384		572	666	760
10	104	198	292	386	480	574		762
12	106	200	294	388	482	576	670	764
14	108	202	296	390	484	578	672	766
16	110	204	298	392	486	580	674	768
18	112	206	300	394	488	582	676	770
20	114	208	302	396	490	584	678	772
22	116	210	304	398	492	586	680	774
24	118		306	400	494	588	682	776
26	120	214	308		496	590	684	778
28	122	216	310	404	498		686	780
30	124	218	312	406	500	594	688	
32	126	220	314	408	502	596	690	784
34	128	222	316	410	504	598	692	786
36	130	224	318	412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134	228	322	416	510	604	698	792
42		230	324	418	512	606	700	794
44	138	232		420	514	608	702	796
46	140	234	328	422		610	704	798
48	142	236	330	424	518	612		800
50	144	238	332	426	520	614	708	802
52	146	240	334	428	522	616	710	804
54	148	242	336	430	524	618	712	806
56	150	244	338	432	526	620	714	808
58	152	246	340	434	528	622	716	810
	154	248	342	436	530	624	718	812
62	156		344	438	532	626	720	814
64	158	252	346		534	628	722	816
66	160	254	348	442	536		724	818
68	162	256	350	444	538	632	726	
70	164	258	352	446	540	634	728	822
72	166	260	354	448	542	636	730	824
74	168	262	356	450	544	638	732	826
76	170	264	358	452	546	640	734	828
78	172	266	360	454	548	642	736	830
80		268	362	456	550	644	738	832
82	176	270		458	552	646	740	834
84	178	272	366	460		648	742	836
86	180	274	368	462	556	650		838
88	182	276	370	464	558	652	746	840
90	184	278	372	466	560	654	748	842
92	186	280	374	468	562	656	750	844
94	188	282	376	470	564	658	752	846

Starts with 24, skips by 42

2	96	190	284	378	472	566	660	754
4	98		286	380	474	568	662	756
6	100	194	288	382	476		664	758
8	102	196	290	384	478	572	666	760
10	104	198	292	386	480	574	668	762
12	106	200	294	388	482	576	670	764
14		202	296	390	484	578	672	766
16	110	204	298	392		580	674	768
18	112	206	300	394	488	582	676	770
20	114	208	302	396	490	584	678	772
22	116	210	304	398	492	586	680	774
24	118	212	306	400	494	588	682	776
26	120	214	308		496	590	684	778
28	122	216	310	404	498		686	
30	124	218	312	406	500	594	688	782
32	126	220	314	408	502	596	690	784
34	128	222	316	410	504	598	692	786
36	130	224		412	506	600	694	788
38	132	226	320	414	508	602		790
40	134	228	322	416	510	604	698	792
42	136	230	324	418	512	606	700	794
44	138	232	326	420	514	608	702	796
46	140		328	422	516	610	704	798
48	142	236	330	424	518		706	800
50	144	238	332	426	520	614	708	802
52	146	240	334	428	522	616	710	804
54	148	242	336	430	524	618	712	806
56		244	338	432	526	620	714	808
58	152	246	340	434	528	622	716	810
60	154	248	342	436	530	624	718	812
62	156	250	344	438	532	626	720	814
64	158	252	346		534	628	722	816
66	160	254	348	442	536		724	818
68	162	256	350	444	538	632	726	820
70	164	258	352	446	540	634	728	
72	166	260	354	448	542	636	730	824
74	168	262	356	450	544	638	732	826
76	170	264	358	452	546	640	734	828
78	172	266		454	548	642	736	830
80	174	268	362	456	550	644		832
82	176	270	364	458	552	646	740	834
84	178	272	366	460	554	648	742	836
86	180	274	368	462	556	650	744	838
88	182		370	464	558	652	746	840
90	184	278	372	466	560	654	748	842
92	186	280	374	468	562	656	750	844
94	188	282	376	470	564	658	752	846

Starts with 26, skips by 46

2	96	190	284	378	472	566	660	754
4	98	192	286	380	474	568	662	756
6	100	194	288	382	476	570	664	758
8	102	196	290	384	478	572	666	760
10	104	198	292	386	480	574	668	
12	106	200	294	388	482	576		764
14	108	202	296	390	484		672	766
16	110	204	298	392		580	674	768
18	112	206	300		488	582	676	770
20	114	208		396	490	584	678	772
22	116		304	398	492	586	680	774
24		212	306	400	494	588	682	776
26	120	214	308	402	496	590	684	
28	122	216	310	404	498	592	686	780
30	124	218	312	406	500	594	688	782
32	126	220	314	408	502	596	690	784
34	128	222	316	410	504	598	692	786
36	130	224	318	412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134	228	322	416	510	604	698	792
42	136	230	324	418	512	606	700	794
44	138	232	326	420	514	608	702	796
46	140	234	328	422	516	610	704	798
48	142	236	330	424	518	612	706	800
50	144	238	332	426	520	614	708	802
52	146	240	334	428	522	616	710	804
54	148	242	336	430	524	618	712	806
56	150	244	338	432	526	620	714	
58	152	246	340	434	528	622		810
60	154	248	342	436	530		718	812
62	156	250	344	438		626	720	814
64	158	252	346		534	628	722	816
66	160	254		442	536	630	724	818
68	162		350	444	538	632	726	820
70		258	352	446	540	634	728	822
	166	260	354	448	542	636	730	824
74	168	262	356	450	544	638	732	826
76	170	264	358	452	546	640	734	828
78	172	266	360	454	548	642	736	830
80	174	268	362	456	550	644	738	832
82	176	270	364	458	552	646	740	834
84	178	272	366	460	554	648	742	836
86	180	274	368	462	556	650	744	838
88	182	276	370	464	558	652	746	840
90	184	278	372	466	560	654	748	842
92	186	280	374	468	562	656	750	844
94	188	282	376	470	564	658	752	846

Starts with 28, skips by 50

2	96	190	284		472	566	660	754
4	98	192	286	380	474	568	662	756
6	100	194	288	382	476	570	664	758
8	102	196	290	384		572	666	760
10	104	198	292	386	480	574	668	762
12	106	200	294	388	482	576	670	764
14	108	202	296	390	484		672	766
16	110	204	298	392	486	580	674	768
18	112	206	300	394	488	582	676	770
20	114	208	302	396	490	584		772
22	116	210	304	398	492	586	680	774
24	118	212	306	400	494	588	682	776
26	120	214	308	402	496	590	684	
28	122	216	310	404	498	592	686	780
30	124	218	312	406	500	594	688	782
32	126	220	314	408	502	596	690	784
34		222	316	410	504	598	692	786
36	130	224	318	412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134		322	416	510	604	698	792
42	136	230	324	418	512	606	700	794
44	138	232	326	420	514	608	702	796
46	140	234		422	516	610	704	798
48	142	236	330	424	518	612	706	800
50	144	238	332	426	520	614	708	802
52	146	240	334		522	616	710	804
54	148	242	336	430	524	618	712	806
56	150	244	338	432	526	620	714	808
58	152	246	340	434		622	716	810
60	154	248	342	436	530	624	718	812
62	156	250	344	438	532	626	720	814
64	158	252	346	440	534		722	816
66	160	254	348	442	536	630	724	818
68	162	256	350	444	538	632	726	820
70	164	258	352	446	540	634		822
72	166	260	354	448	542	636	730	824
74	168	262	356	450	544	638	732	826
76	170	264	358	452	546	640	734	
	172	266	360	454	548	642	736	830
80	174	268	362	456	550	644	738	832
82	176	270	364	458	552	646	740	834
84		272	366	460	554	648	742	836
86	180	274	368	462	556	650	744	838
88	182	276	370	464	558	652	746	840
90	184		372	466	560	654	748	842
92	186	280	374	468	562	656	750	844
94	188	282	376	470	564	658	752	846

Starts with 30, skips by 54

2	96	190	284	378	472	566	660	754
4	98		286	380	474	568	662	756
6	100	194	288	382	476		664	758
8	102	196	290	384	478	572	666	760
10	104	198	292	386	480	574	668	762
12	106	200	294	388	482	576	670	764
14	108	202	296	390	484	578	672	766
16	110	204	298	392	486	580	674	768
18	112	206		394	488	582	676	770
20	114	208	302	396	490	584		772
22	116	210	304	398	492	586	680	774
24	118	212	306	400	494	588	682	776
26	120	214	308	402	496	590	684	778
28	122	216	310	404	498	592	686	780
30	124	218	312	406	500	594	688	782
32	126	220	314		502	596	690	784
34	128	222	316	410	504	598	692	
36	130	224	318	412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134	228	322	416	510	604	698	792
42	136	230	324	418	512	606	700	794
44		232	326	420	514	608	702	796
46	140	234	328	422		610	704	798
48	142	236	330	424	518	612	706	800
50	144	238	332	426	520	614	708	802
52	146	240	334	428	522	616	710	804
54	148	242	336	430	524	618	712	806
56	150	244	338	432	526	620	714	808
58	152		340	434	528	622	716	810
60	154	248	342	436	530		718	812
62	156	250	344	438	532	626	720	814
64	158	252	346	440	534	628	722	816
66	160	254	348	442	536	630	724	818
68	162	256	350	444	538	632	726	820
70	164	258	352	446	540	634	728	822
72	166	260		448	542	636	730	824
74	168	262	356	450	544	638		826
76	170	264	358	452	546	640	734	828
78	172	266	360	454	548	642	736	830
80	174	268	362	456	550	644	738	832
82	176	270	364	458	552	646	740	834
	178	272	366	460	554	648	742	836
86	180	274	368		556	650	744	838
88	182	276	370	464	558	652	746	
90	184	278	372	466	560	654	748	842
92	186	280	374	468	562	656	750	844
94	188	282	376	470	564	658	752	846

Starts with 32, skips by 58

2	96	190	284	378	472	566	660	754
4	98	192	286		474	568	662	756
6	100	194	288	382	476	570	664	758
8	102	196	290	384	478	572	666	760
10	104	198	292	386	480	574	668	762
12	106	200	294	388	482	576		764
14	108	202	296	390	484	578	672	766
16	110	204	298	392	486	580	674	768
18	112		300	394	488	582	676	770
20	114	208	302	396	490	584	678	772
22	116	210	304	398	492	586	680	774
24	118	212	306	400	494	588	682	776
26	120	214	308	402		590	684	778
28	122	216	310	404	498	592	686	780
30	124	218	312	406	500	594	688	782
32	126	220	314	408	502	596	690	784
34	128	222	316	410	504	598	692	
36	130	224	318	412	506	600	694	788
38	132	226	320	414	508	602	696	790
40	134	228		416	510	604	698	792
42	136	230	324	418	512	606	700	794
44	138	232	326	420	514	608	702	796
46	140	234	328	422	516	610	704	798
48	142	236	330	424	518		706	800
50	144	238	332	426	520	614	708	802
52	146	240	334	428	522	616	710	804
54		242	336	430	524	618	712	806
56	150	244	338	432	526	620	714	808
58	152	246	340	434	528	622	716	810
60	154	248	342	436	530	624	718	812
62	156	250	344		532	626	720	814
64	158	252	346	440	534	628	722	816
66	160	254	348	442	536	630	724	818
68	162	256	350	444	538	632	726	820
70	164	258	352	446	540	634		822
72	166	260	354	448	542	636	730	824
74	168	262	356	450	544	638	732	826
76	170		358	452	546	640	734	828
78	172	266	360	454	548	642	736	830
80	174	268	362	456	550	644	738	832
82	176	270	364	458	552	646	740	834
84	178	272	366	460		648	742	836
86	180	274	368	462	556	650	744	838
88	182	276	370	464	558	652	746	840
	184	278	372	466	560	654	748	842
92	186	280	374	468	562	656	750	
94	188	282	376	470	564	658	752	846