

# Specific Function of Prime Numbers

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## Abstract

This paper discusses a function of infinite formulas in determining prime numbers directly and in order.

This function consists of three steps:

1-Step (the first) is a formula that produces prime numbers and multiples of prime numbers (disbursed) from the list of numbers, and it depends on some of the constants that will never change, such as: 10 and 1 as for the variable constants in the formula are: 12 and 18 its variable depends on an increase 30 Every step.

$$10+1+12-1-10$$

$$23=10+13=1+12-1=11-10=1$$

$$12+30=42$$

$$53=10+43=1+42-1=41-10=31$$

$$42+30=72$$

$$83=10+73=1+72-1=71-10=61$$

$$72+30=102$$

$$113=10+103=1+102-1=101-10=91$$

$$102+30=132$$

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$$10+1+18-1-10$$

$$29=10+19=1+18-1=17-10=7$$

$$18+30=48$$

$$59=10+49=1+48-1=47-10=37$$

$$48+30=78$$

$$89=10+79=1+78-1=77-10=67$$

$$78+30=108$$

$$119=10+109=1+108-1=107-10=97$$

$$108+30=138$$

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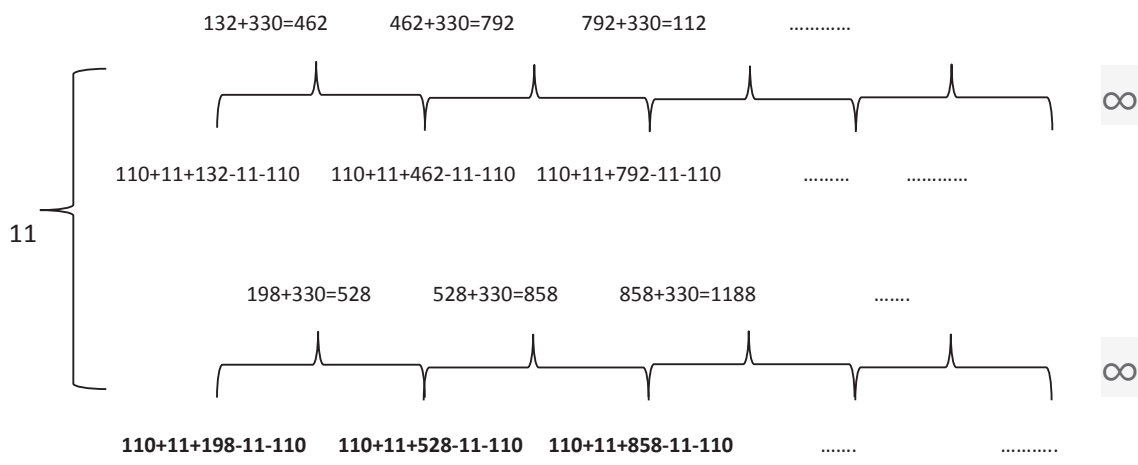
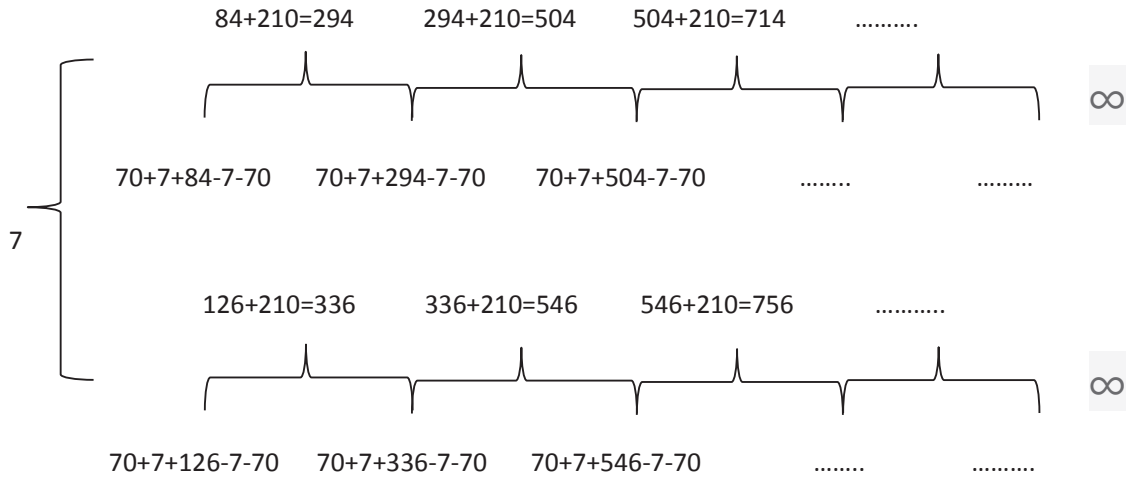
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2-The (second) step is to construct the variable and unchanging constants for each number you extract (the first step) as indicated.

		<b>10+1+12-1-10</b>	<b>10+1+18-1-10</b>
1	$1 \times 30 = 30$		
7	$7 \times 30 = 210$ , $7 \times 12 = 84$ , $7 \times 18 = 126$ , $7 \times 1 = 7$ , $7 \times 10 = 70$		
11	$11 \times 30 = 330$ , $11 \times 12 = 132$ , $11 \times 18 = 198$ , $11 \times 1 = 11$ , $11 \times 10 = 110$		
13	$13 \times 30 = 390$ , $13 \times 12 = 156$ , $13 \times 18 = 234$ , $13 \times 1 = 13$ , $13 \times 10 = 130$		
17	$17 \times 30 = 510$ , $17 \times 12 = 204$ , $17 \times 18 = 306$ , $17 \times 1 = 17$ , $17 \times 10 = 170$		
19	$19 \times 30 = 570$ , $19 \times 12 = 228$ , $19 \times 18 = 342$ , $19 \times 1 = 19$ , $19 \times 10 = 190$		
23	$23 \times 30 = 690$ , $23 \times 12 = 276$ , $23 \times 18 = 414$ , $23 \times 1 = 23$ , $23 \times 10 = 230$		
29	$29 \times 30 = 870$ , $29 \times 12 = 348$ , $29 \times 18 = 522$ , $29 \times 1 = 29$ , $29 \times 10 = 290$		
31	$31 \times 30 = 930$ , $31 \times 12 = 372$ , $31 \times 18 = 558$ , $31 \times 1 = 31$ , $31 \times 10 = 310$		
37	$37 \times 30 = 1110$ , $37 \times 12 = 444$ , $37 \times 18 = 666$ , $37 \times 1 = 37$ , $37 \times 10 = 370$		
41	$41 \times 30 = 1230$ , $41 \times 12 = 492$ , $41 \times 18 = 738$ , $41 \times 1 = 41$ , $41 \times 10 = 410$		
43	$43 \times 30 = 1290$ , $43 \times 12 = 516$ , $43 \times 18 = 774$ , $43 \times 1 = 43$ , $43 \times 10 = 430$		
47	$47 \times 30 = 1410$ , $47 \times 12 = 564$ , $47 \times 18 = 846$ , $47 \times 1 = 47$ , $47 \times 10 = 470$		
<u>49</u>	$49 \times 30 = 1470$ , $49 \times 12 = 588$ , $49 \times 18 = 882$ , $49 \times 1 = 49$ , $49 \times 10 = 490$		
53	$53 \times 30 = 1590$ , $53 \times 12 = 636$ , $53 \times 18 = 954$ , $53 \times 1 = 53$ , $53 \times 10 = 530$		
59	.....		



3-Step (the third) is clear as (the first step) in use, and results in the numbers of multiples of prime numbers, and these numbers must be crossed out in the list of numbers (first step), and the result is ordinarily initial numbers.



13...  $\infty$

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