

## Two sequences of primes whose formulas contain the number 360

Marius Coman  
Bucuresti, Romania  
email: mariuscoman13@gmail.com

**Abstract.** In this paper I present two possible infinite sequences of primes, having in common the fact that their formulas contain the number 360.

### Conjecture 1:

There exist an infinity of primes of the form  $360 \cdot p \cdot q + 1$ , where  $p, q$  are primes, both greater than or equal to 7.

The first few such primes:

:  $360 \cdot 7 \cdot 17 + 1 = 42841$ ;  
:  $360 \cdot 7 \cdot 19 + 1 = 47881$ ;  
:  $360 \cdot 11 \cdot 13 + 1 = 51481$ ;  
:  $360 \cdot 13 \cdot 17 + 1 = 79561$ ;  
:  $360 \cdot 11 \cdot 23 + 1 = 91081$ ;  
:  $360 \cdot 13 \cdot 23 + 1 = 107641$ .

### Conjecture 2:

There exist an infinity of primes of the form  $360 \cdot p \cdot q + r$ , where  $p, q, r$  are primes, all of them greater than or equal to 7.

The first few such primes for  $p = q = 7$ :

:  $360 \cdot 7 \cdot 7 + 17 = 17657$ ;  
:  $360 \cdot 7 \cdot 7 + 19 = 17659$ ;  
:  $360 \cdot 7 \cdot 7 + 29 = 17669$ ;  
:  $360 \cdot 7 \cdot 7 + 41 = 17681$ ;  
:  $360 \cdot 7 \cdot 7 + 41 = 17683$ .

The first few such primes for  $p = 7, q = 11$ :

:  $360 \cdot 7 \cdot 11 + 13 = 27733$ ;  
:  $360 \cdot 7 \cdot 11 + 17 = 27737$ ;  
:  $360 \cdot 7 \cdot 11 + 19 = 27739$ ;  
:  $360 \cdot 7 \cdot 11 + 23 = 27743$ ;  
:  $360 \cdot 7 \cdot 11 + 29 = 27749$ ;  
:  $360 \cdot 7 \cdot 11 + 31 = 27751$ .

Note the six consecutive primes obtained above!