



5. There exist prime numbers  $p$  and  $q$  such that  $pq + 1$  is prime.

6. For any positive integer  $n$ ,  $2^{2^n} + 1$  is prime.

7. If 6 divides  $n$ , then 3 divides  $n$ .

8. If  $k$  divides  $m$  and  $k$  divides  $n$ , then  $k$  divides  $m + n$ .

9. If  $\ell$  divides  $m$  and  $m$  divides  $n$ , then  $\ell$  divides  $n$ .

10. If  $k$  divides  $n^2$ , then  $k$  divides  $n$ .