Fermat's little theorem extension:-

If p is prime no.

$(a^{p-2}) \bmod p = (a^{-1}) \bmod p$

↑ this can be calculated using modular exponentiation.

↘ multiplicative mod inverse.

suppose $a \times b = 1$

b is multiplicative inverse of a. and $b = a^{-1}$

now $(a \times b) \bmod m = 1$ here b is multiplicative mod inverse of a.

Basic definition:- a mein aisa kya multiply karoon k multiplication k baad mod by m karne k baad 1 aa jaye.

$b = (a^{-1}) \bmod m$

now you have to find b using a and m.

and fermats says that if m is prime then $a^{-1} \bmod m = (a^{m-2}) \bmod m$.

let $a = 3$ $m = 11$, we can tell that you should multiply a(3) with 4. so that $3*4 = 12 \% 11 = 1$.