Euclids Algorithm

$$gcd(a,b) = gcd(rem(b,a), a)$$

$gcd(105, 224) = gcd(rem(224, 105), 105))$

$= gcd(14, 105)$

Why this works?

→ $gcd(105, 224) = 105x + 224y$

$= 14x + 105y$

i.e., the gcd of (105, 224) also divides a linear combination of 105 & 224

The x & y value can be anything

Eg: $224 - 2(105) = 14$

This is rem itself

When a becomes, then last non-zero remainder is the answer which won't change.

And this gcd call is the recursive function