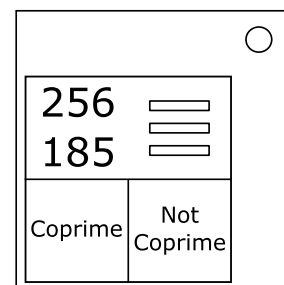


On the Subject of Coprime Checker

Check the pairs!

This module consists of 2 buttons, 2 numbers being shown and 3 stage lights. These buttons say "Coprime" and "Not Coprime" respectively.



To solve the module, exactly 1 button corresponding to the pair of numbers must be correctly pressed 3 times overall. If the pair of numbers are coprime to each other, press "Coprime". Otherwise, if the pair of numbers are not coprime to each other, press "Not Coprime." Incorrectly pressing a button will generate 2 new numbers alongside striking in the process.

To determine whatever the pair of numbers are coprime or not, take the prime factorization between these 2 numbers. If there are no prime factors in common with the pair of numbers, the pair of numbers are considered to be coprime.

To perform a prime factorization of a number, try to divide your starting number by a prime number less than your starting number. If the result returns a remainder, try dividing a different prime number instead to the starting number until you are unable to divide this number any further. Otherwise, if result does not return a remainder, note that prime factor and repeat this procedure with the quotient as your new starting number. Once being unable to divide this number, all prime factors you have noted up to this point is the prime factorization of your original number.

An example of prime factorization is shown on this page.

Prime Factorization To A Number (Example)	
966	Initial value, before factoring
2×483	2 is divisible by 966.
$2 \times 3 \times 161$	2 is not divisible by 483. However, 3 is.
$2 \times 3 \times 7 \times 23$	2, 3 and 5 are all not divisible by 161. However, 7 is.
	23 is prime. The prime factorization ends here.
748	Initial value, before factoring
2×374	2 is divisible by 748.
$2 \times 2 \times 187$	2 is divisible by 374.
$2 \times 2 \times 11 \times 17$	2, 3 and 5, 7 are all not divisible by 187. However, 11 is.
	17 is prime. The prime factorization ends here.

Options (Alt-0)

Highlighter

☒ Enabled (Alt-H)

Color:

- ☒ Blue (Alt-1)
- ☐ Red (Alt-2)
- ☐ Green (Alt-3)
- ☐ Yellow (Alt-4)

Page layout

- ☒ Vertical
- ☐ Side by side