

Warm Up



What is a multiple????

The answers you get
when multiply by a given
number.

Write the first 10 multiples of:

(a) 9 9, 18, 27, 36, 45, 54, 63, 72, 81, 90

(b) 11 11, 22, 33, 44, 55, 66, 77, 88, 99, 110

(c) 6 6, 12, 18, 24, 30, 36, 42, 48, 54, 60

What is a factor

The numbers multiplied together to get an give a number.

$$5 \times 2 = 10$$

← multiple of 5

← multiple of 2

factor of 10

factor of 10

The diagram illustrates the relationship between factors and multiples using the equation $5 \times 2 = 10$. The numbers 5, 2, and 10 are written in blue. Two green arrows originate from the numbers 5 and 2 and point to the text 'factor of 10', indicating that 5 and 2 are factors of 10. Two red arrows originate from the number 10 and point to the text 'multiple of 5' and 'multiple of 2', indicating that 10 is a multiple of both 5 and 2.

List the factors of

(a) 15

$$1 \times 15$$
$$3 \times 5$$

(b) 20

$$1 \times 20$$
$$2 \times 10$$
$$4 \times 5$$

common factors are 1, 5

$$\text{GCF} = 5$$

Prime Numbers: numbers that cannot be divided by any number but one and itself (1 and itself are the only factors!)

 **EXAMPLE:** 1, 2, 5, 7, 11.....

Composite Numbers: a positive number that has more than 2 factors

Prime Factorization: is finding all the prime factors that divide into a composite number

 **Must complete a factor tree**

LET'S SORT THESE NUMBERS

~~11~~, ~~27~~, ~~43~~, ~~18~~, ~~35~~, 29, 50, 17, 21, 14, 31, 44, 25, 37, 16, 39, 23, 28, 41, 33

prime

11
43
29

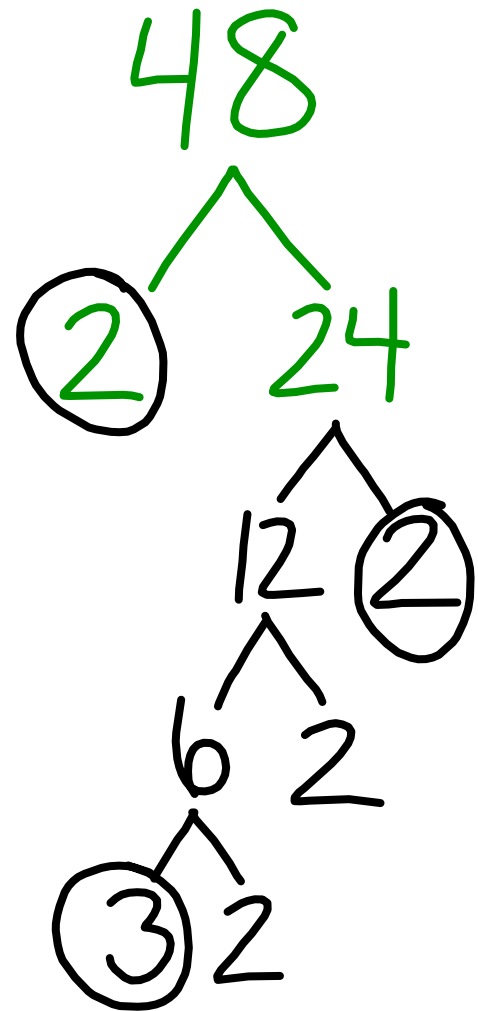
composite

27
18
35

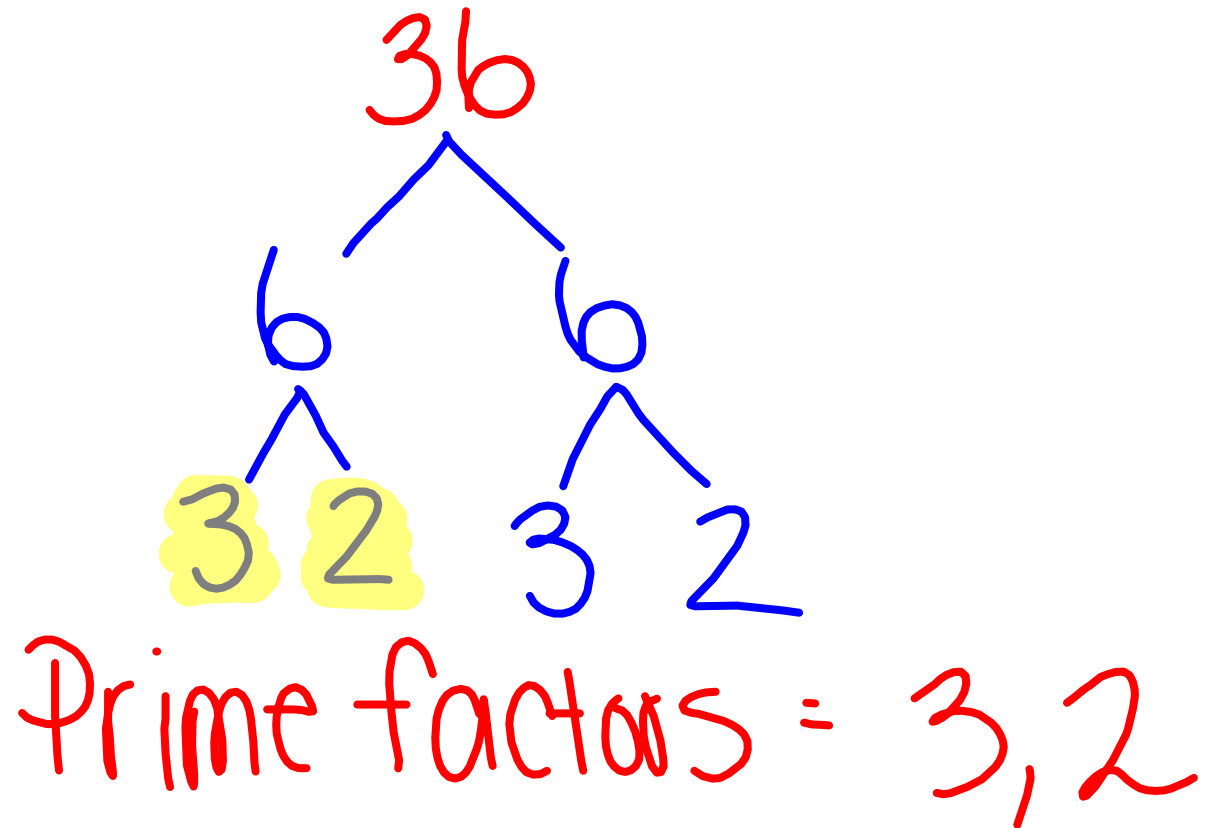
We will do these together

Find the PRIME FACTORS of (factor tree):

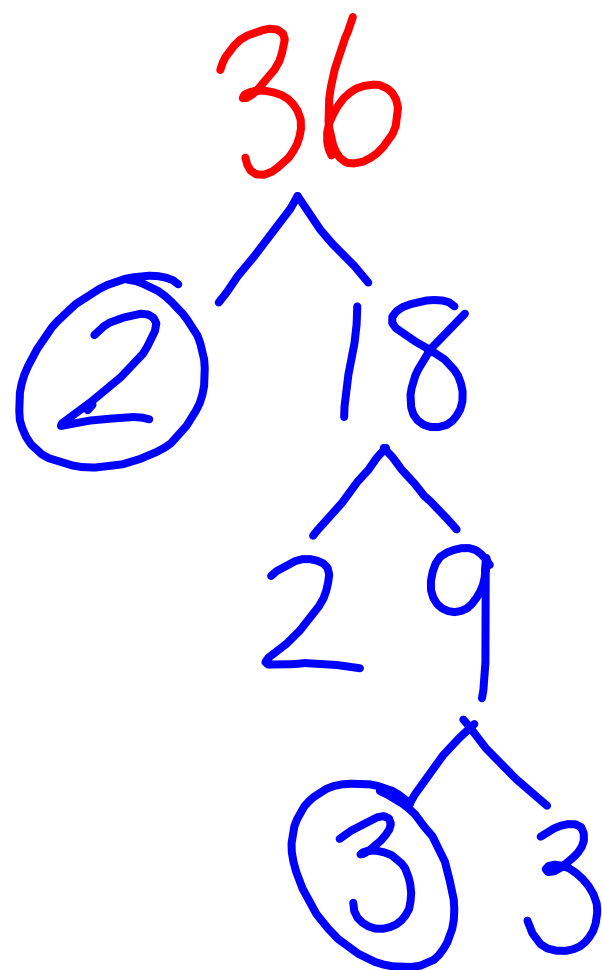
(a) 48



(b) 36



Prime factors: 2, 3



You try

Find the prime factors of the following:

a) 30

b) 72

c) 6

Homework

- Study multiplication facts + complete worksheet
- USE YOUR NOTES FOR HELP!

