

Prime Factorization
by
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***every composite
number expressed as
a product of a prime
number.***

Concept Summary:



■ Prime

- A whole number that has exactly two factors, 1 and the number itself.
- 11, 13, 25

■ Composite

- A number greater than 1 with more than two factors.
- 6, 10, 18

■ Neither prime nor composite

- 1 has only one factor. 0 has an infinite number of factors.
- 0, 1

Identify Prime and composite, or neither



- **28:** The factors of 28 are 1 and 28, 2 and 14, and 4 and 7. Since 28 has more than two factors, it is a composite number.
- **11:** The factors of 11 are 1 and 11. Since there are exactly two factors, 1 and the number itself, 11 is a prime number.



Remember

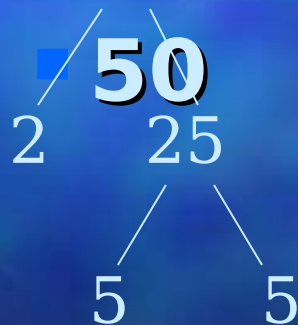
- **Factor**: when two or more numbers are multiplied, each number is called a factor of the product.
- **Prime Number**: a whole number that has exactly two unique factors, 1 and the number itself.
- **Composite number**: a number greater than 1 with more than two factors.

Prime Numbers and Prime Factorization

- Every Composite number can be written as a product of prime numbers
- $6 = 2 \times 3$
- $8 = 2 \times 2 \times 2$
- $12 = 2 \times 2 \times 3$

Prime Factors

- **Factors that are prime numbers are called prime factors. You can use Factor Tree to find prime factors. This one shows the prime factors of 50**



$50 = 2 \times 5 \times 5$ is the prime factorization of 50.

Hope you enjoy the
Lesson!

Have a nice day to
all of you!!!!!!!!!!

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