Factors and Factor Trees Guided Notes

A number is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of another if it divides into that number with no remainder.

Example: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A number that has exactly two factors, 1 and itself is called a \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_.

Examples: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A number that has more than two factors is called a\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Examples: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Practice

1. List the factors of 36.

1. List the factors of 30.
2. Is 6 prime or composite?
3. Is 11 prime or composite?

You can break down a composite number into prime factors.

You can do this by making a factor tree.

Example 1: Find the prime factorization of 24 by using a factor tree.

Example 2: Find the prime factorization of 50 by using a factor tree.

Practice

Find the prime factorization of each number.

1. 45
2. 32