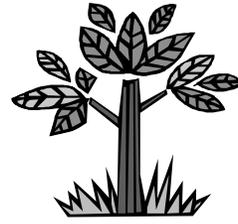


Factor Trees

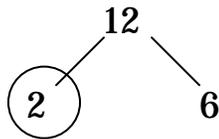


Objective:

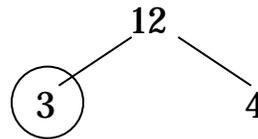
Create factor trees of whole numbers to find the prime factors. To recognize that the prime factors of a number are unique (Fundamental Theorem of Arithmetic)

Instructions:

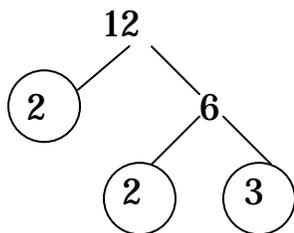
Begin with a whole number, such as 12. Then find any two factors of 12 and write the factors using “branches” below number. Circle any prime number in the branches. Examples of two different “trees” with number 12:



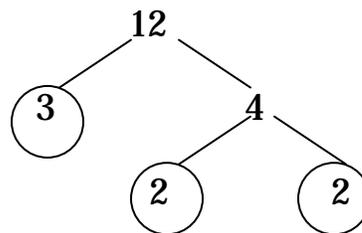
or



Continue branching composite numbers into factors. Again circle the prime numbers.



or



When all the lower tree branches have been circled, the prime factors of the number have been found. No other number this collection of prime numbers as factors.

The prime factors of 12 are: $2 \times 2 \times 3$

Have students create factors trees of a variety of numbers: