

Name: \_\_\_\_\_



# Prime Factorization

Factors are numbers that you multiply together to get another number. When a factor is a prime number, it is called a prime factor. For example, the prime factors of 12 are  $2 \times 2 \times 3$ . So 2, 2, and 3 are prime factors of 12.

Find the prime factors of the numbers below. See the example.



$$\begin{aligned} 16 &= 2 \times 8 \\ &= 2 \times 2 \times 4 \\ &= 2 \times 2 \times 2 \times 2 \end{aligned}$$

$$\begin{aligned} 36 &= \boxed{4} \times \boxed{9} \\ &= \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \end{aligned}$$

$$\begin{aligned} 48 &= \boxed{4} \times \boxed{12} \\ &= \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \\ &= \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \end{aligned}$$

$$\begin{aligned} 56 &= \boxed{7} \times \boxed{\phantom{0}} \\ &= \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \\ &= \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \times \boxed{\phantom{0}} \end{aligned}$$