

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

A prime factorization tree for the number 81. The number 81 is in a rounded rectangle at the top. Two lines branch down from it to a circle on the left and a rounded rectangle on the right. From the rounded rectangle on the right, two lines branch down to a circle on the left and another rounded rectangle on the right. From this second rounded rectangle, two lines branch down to two circles. Below the tree is the equation: $__ \times __ \times __ \times __ = 81$

2

A prime factorization tree for the number 60. The number 60 is in a rounded rectangle at the top. Two lines branch down from it to a circle on the left and a rounded rectangle on the right. From the rounded rectangle on the right, two lines branch down to a circle on the left and another rounded rectangle on the right. From this second rounded rectangle, two lines branch down to two circles. Below the tree is the equation: $__ \times __ \times __ \times __ = 60$

3

A prime factorization tree for the number 24. The number 24 is in a rounded rectangle at the top. Two lines branch down from it to a circle on the left and a rounded rectangle on the right. From the rounded rectangle on the right, two lines branch down to a circle on the left and another rounded rectangle on the right. From this second rounded rectangle, two lines branch down to two circles. Below the tree is the equation: $__ \times __ \times __ \times __ = 24$

4

A prime factorization tree for the number 126. The number 126 is in a rounded rectangle at the top. Two lines branch down from it to a circle on the left and a rounded rectangle on the right. From the rounded rectangle on the right, two lines branch down to a circle on the left and another rounded rectangle on the right. From this second rounded rectangle, two lines branch down to two circles. Below the tree is the equation: $__ \times __ \times __ \times __ = 126$

5

A prime factorization tree for the number 375. The number 375 is in a rounded rectangle at the top. Two lines branch down from it to a circle on the left and a rounded rectangle on the right. From the rounded rectangle on the right, two lines branch down to a circle on the left and another rounded rectangle on the right. From this second rounded rectangle, two lines branch down to two circles. Below the tree is the equation: $__ \times __ \times __ \times __ = 375$

6

A prime factorization tree for the number 104. The number 104 is in a rounded rectangle at the top. Two lines branch down from it to a circle on the left and a rounded rectangle on the right. From the rounded rectangle on the right, two lines branch down to a circle on the left and another rounded rectangle on the right. From this second rounded rectangle, two lines branch down to two circles. Below the tree is the equation: $__ \times __ \times __ \times __ = 104$

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Answer Key

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

$\underline{3} \times \underline{3} \times \underline{3} \times \underline{3} = 81$

2

$\underline{2} \times \underline{2} \times \underline{3} \times \underline{5} = 60$

3

$\underline{2} \times \underline{2} \times \underline{2} \times \underline{3} = 24$

4

$\underline{2} \times \underline{3} \times \underline{3} \times \underline{7} = 126$

5

$\underline{3} \times \underline{5} \times \underline{5} \times \underline{5} = 375$

6

$\underline{2} \times \underline{2} \times \underline{2} \times \underline{13} = 104$