

Vocabulary

Vocabulary Start-Up

A common factor is a number that is a factor of two or more numbers. The greatest of the common factors of two or more numbers is called the greatest common factor (GCF).

The least number that is a multiple of two or more whole numbers is the least common multiple (LCM) of the numbers.

Fill in the charts below.

GCF
• stands for: greatest common factor
Define: • Greatest largest
• Common same
• Factor a number multiplied to another number

LCM
• stands for: least common multiple
Define: • Least smallest
• Common same
• Multiple the product of a number and any whole number

•Greatest Common Factor - largest same number that is a factor of two or more numbers.

•Least Common Multiple - smallest same number that is a multiple of two or more numbers.

# 1.1 Factors and Multiples (6.NS.4)

Key

## Guided Practice

Find the greatest common factor.

1.) 8, 32

GCF: 8

$$\begin{array}{r} 8 \\ 1 \times 8 \\ \hline 2 \times 4 \end{array}$$

$$\begin{array}{r} 32 \\ 1 \times 32 \\ \hline 2 \times 16 \\ 4 \times 8 \end{array}$$

2.) 24, 60

GCF: 12

$$\begin{array}{r} 24 \\ 1 \times 24 \\ \hline 2 \times 12 \\ 3 \times 8 \\ 4 \times 6 \end{array}$$

$$\begin{array}{r} 60 \\ 1 \times 60 \\ \hline 2 \times 30 \\ 3 \times 20 \\ 4 \times 15 \\ 5 \times 12 \\ 6 \times 10 \end{array}$$

3.) 3, 12, 18

GCF: 3

$$\begin{array}{r} 3 \\ 1 \times 3 \end{array}$$

$$\begin{array}{r} 12 \\ 1 \times 12 \\ \hline 2 \times 6 \\ 3 \times 4 \end{array}$$

$$\begin{array}{r} 18 \\ 1 \times 18 \\ \hline 2 \times 9 \\ 3 \times 6 \end{array}$$

Find the least common multiple.

4.) 7, 9

LCM: 63

7: 7, 14, 21, 28, 35, 42, 49, 56, 63

9: 9, 18, 27, 36, 45, 54, 63

5.) 6, 15

LCM: 30

6: 6, 12, 18, 24, 30, 36, 42, 48, 54, 60

15: 15, 30, 45, 60

6.) 9, 12, 15

LCM: 180

7.) The Movie House gives away a \$5 coupon for every 4 movies purchased. They give away a bag of popcorn for every 3 movies purchased. How many movies would you have to purchase in all before receiving both a \$5 coupon and a bag of popcorn at the same purchase? - LCM

3: 3, 6, 9, 12

4: 4, 8, 12

12 movies

Building on the Essential Question - In a word problem, how do you know if you are supposed to find the LCM or GCF?

\* If you are looking for the smallest amount (like above), you find the LCM.

\* If you are looking for the greatest amount,

Rate Yourself - Are you ready to move on? Shade the section that applies. find the GCF.

YES ? NO

Rate yourself! ☺