

Name \_\_\_\_\_ Date \_\_\_\_\_

## MULTIPLYING AND DIVIDING FRACTIONS

### APPLICATIONS

**HOW DO YOU KNOW WHICH OPERATION TO USE IN A WORD PROBLEM?**

**LOOK FOR KEY WORDS**



#### DIVISION

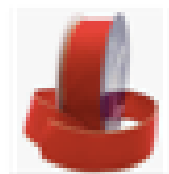
How many  $\rightarrow$   
 are in  $\rightarrow$   
 - cut in equal pieces  
 - split up in equal parts

#### MULTIPLICATION

"of"  
 repeated addition

#### EXAMPLE 1:

Georgia has a piece of ribbon that is  $\frac{2}{3}$  yards long. She is doing a craft that requires the ribbon to be cut into 12 pieces of equal size. How long will each piece be?



division  
 $\frac{2}{3} \div 12$

#### Questions to Ponder:

1. What is the question asking?
2. Which operation will be used to answer the question? How do you know?

NOTES: CC.6.NS.1

**EXAMPLE 2:**

Eden carried  $\frac{1}{2}$  gallon of water on a hike. She drank  $\frac{2}{3}$  of the water. How much water (in gallons) did she drink?

*\* keyword*



*Multiply*  
 $\frac{2}{3} \times \frac{1}{2}$

**Questions to Ponder:**

1. What is the question asking?
2. Which operation will be used to answer the question? How do you know?

**EXAMPLE 3:**

Ethan worked  $4\frac{1}{2}$  hours each day for 3 days mowing lawns. How many total hours did he work in the 3 days?

*\* Repeated addition*



*Multiply*  
 $4\frac{1}{2} \times 3$

**Questions to Ponder:**

1. What is the question asking?
2. Which operation will be used to answer the question? How do you know?

NOTES: CC.6.NS.1

**EXAMPLE 4:**

Carol makes  $9\frac{1}{3}$  cups of snack mix. She puts all the snack mix into plastic bags. She puts  $\frac{2}{3}$  cup of snack mix in each bag. How many plastic bags does Carol need?



*How many  $\frac{2}{3}$ 's are in  $9\frac{1}{3}$ ?*

*total* 

*divide*  
 $9\frac{1}{3} \div \frac{2}{3} = 2\frac{2}{3}$

**Questions to Ponder:**

1. What is the question asking?
2. Which operation will be used to answer the question? How do you know?

**EXAMPLE 5:**

A chef bought 3 bags of beans. Each bag contains  $1\frac{2}{3}$  kilograms of beans. How many kilograms of beans did the chef buy?



*repeated addition*

*multiply*

$3 \times 1\frac{2}{3} = 5\frac{2}{3}$

**Questions to Ponder:**

1. What is the question asking?
2. Which operation will be used to answer the question? How do you know?