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

### Multiplying a Fraction by a Whole Number

We know that multiplication can be represented as groups of objects times the number of objects in those groups.

$$5 \times 2 = 10$$





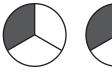






We can also multiply fractions by whole numbers using visual models to show groups of fractions.

For example, we can represent  $4 \times \frac{1}{3}$  as 4 groups of  $\frac{1}{3}$ .







$$4 \times \frac{1}{3} = \frac{4}{1} \times \frac{1}{3} = \frac{4}{3}$$

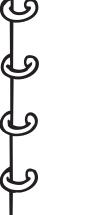
Since the numerator is bigger than the denominator, this is an improper fraction. We can write it as a mixed number.

We can use division to change the improper fraction to a mixed number.

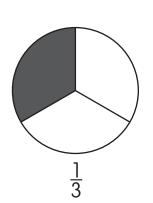
$$\frac{1}{3} = 3 \frac{1}{4} = 1 \frac{1}{3}$$

$$\frac{-3}{1}$$

We show the remainder as a fraction. The remainder becomes the numerator and the divisor becomes the denominator.







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

### Multiplying a Fraction by a Whole Number

Work with your partner to solve these practice problems.

Shade the visual models to solve each problem. Write improper fractions as mixed numbers.

1. 
$$5 \times \frac{1}{2} =$$
\_\_\_\_\_



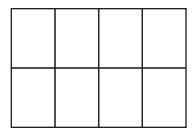


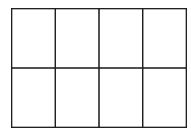






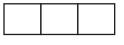
2. 
$$2 \times \frac{1}{8} =$$
\_\_\_\_\_



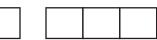


3. 
$$6 \times \frac{1}{3} =$$
\_\_\_\_\_

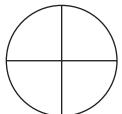


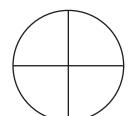


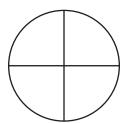




4. 
$$3 \times \frac{3}{4} =$$
\_\_\_\_\_







FOCUS & FIND

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

## Multiplying a Fraction by a Whole Number

Focus on what you learned. Find the answers.

Draw a visual model to solve each problem. Write improper fractions as mixed numbers.

1. 
$$8 \times \frac{1}{3} =$$
\_\_\_\_\_

2. 
$$5 \times \frac{2}{4} =$$
\_\_\_\_\_

3. 
$$6 \times \frac{3}{5} =$$
\_\_\_\_\_

4. 
$$3 \times \frac{1}{8} =$$
\_\_\_\_\_

#### **Fractions**

THINK & WRITE

#### Multiplying a Fraction by a Whole Number

Think about multiplying fractions by whole numbers. Write about what you learned.

1.	How do visual models help you multiply fractions by whole numbers?
2.	What is an improper fraction?
3.	One important thing to remember when multiplying a fraction by a whole number is