

Objectives:

- Students will memorize the multiplication table, as evidenced by them passing “minute quizzes.”
- Students will multiply whole numbers by fractions, as evidenced by them completing a warm-up worksheet where they do so.
- Students will find the fraction of a collection of objects, as evidenced by them completing a homework assignment where they do so.

Student Materials on Desk Corner:

- Homework #2-18
- Homework Checker
- Readiness Checker

Student Materials for Class:

- Homework Log
- Binder Paper
- Pencils

Teacher Materials:

- “Warm-up 2-19” for each student
- “Minute Quiz 2-19” for each student
- “Homework #2-18” answer key and grading roster for TA
- “Homework #2-19” handout for each student

Homework:

- Homework #2-19

Time	Activity
Before Bell	<p>DO NOW</p> <p>As students enter the classroom, shake hands and give them a copy of the warm-up. Remind students that there is a minute quiz, so students need to be seated quietly with a pencil when the bell rings.</p>
5 min	<p>MINUTE QUIZ, HOMEWORK COLLECTION, AND WARM-UP</p> <p>Minute Quiz When the bell rings, quickly go around and put the minute quiz on each student’s desk, facedown. Then, start everyone on the quiz at the same time and give everyone one minute. While students are working on the quiz, stamp the readiness checkers of students who were ready when the bell rang and had their readiness checkers out.</p> <p>Homework Collection Instruct the TA go around and collect homework and stamp homework checkers. Give the TA the answer key and have him or her grade the homework that was collected.</p> <p>Warm-up After the minute quiz, students should work on the warm-up while you take attendance.</p>
35 min	<p>LESSON: FRACTIONS OF COLLECTIONS</p> <p>Notes Follow the handwritten Cornell Notes.</p> <p>Homework Pass out the “Homework #2-19” handout and have students write down the assignment on their homework logs.</p>
45 min	<p>ALEKS</p> <p>Students should continue with ALEKS. Use this student work time to return graded homework.</p>

Solve the following multiplication problems. You have exactly one minute!

$5 \cdot 7 =$	$11 \cdot 5 =$	$6 \cdot 12 =$
$5 \cdot 12 =$	$10 \cdot 8 =$	$11 \cdot 10 =$
$10 \cdot 2 =$	$3 \cdot 3 =$	$10 \cdot 2 =$
$4 \cdot 6 =$	$7 \cdot 5 =$	$2 \cdot 3 =$

Solve the following multiplication problems. You have exactly one minute!

$5 \cdot 7 =$	$11 \cdot 5 =$	$6 \cdot 12 =$
$5 \cdot 12 =$	$10 \cdot 8 =$	$11 \cdot 10 =$
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$5 \cdot 12 =$	$10 \cdot 8 =$	$11 \cdot 10 =$
$10 \cdot 2 =$	$3 \cdot 3 =$	$10 \cdot 2 =$
$4 \cdot 6 =$	$7 \cdot 5 =$	$2 \cdot 3 =$

Solve the following multiplication problems. You have exactly one minute!

$7 \cdot 8 =$	$7 \cdot 8 =$	$4 \cdot 12 =$
$4 \cdot 7 =$	$6 \cdot 4 =$	$2 \cdot 9 =$
$9 \cdot 9 =$	$1 \cdot 9 =$	$11 \cdot 11 =$
$12 \cdot 7 =$	$7 \cdot 7 =$	$12 \cdot 11 =$

Solve the following multiplication problems. You have exactly one minute!

$7 \cdot 8 =$	$7 \cdot 8 =$	$4 \cdot 12 =$
$4 \cdot 7 =$	$6 \cdot 4 =$	$2 \cdot 9 =$
$9 \cdot 9 =$	$1 \cdot 9 =$	$11 \cdot 11 =$
$12 \cdot 7 =$	$7 \cdot 7 =$	$12 \cdot 11 =$

Solve the following multiplication problems. You have exactly one minute!

$7 \cdot 8 =$	$7 \cdot 8 =$	$4 \cdot 12 =$
$4 \cdot 7 =$	$6 \cdot 4 =$	$2 \cdot 9 =$
$9 \cdot 9 =$	$1 \cdot 9 =$	$11 \cdot 11 =$
$12 \cdot 7 =$	$7 \cdot 7 =$	$12 \cdot 11 =$

Solve the following multiplication problems. You have exactly one minute!

$4 \cdot 7 =$

$5 \cdot 9 =$

$7 \cdot 3 =$

$10 \cdot 8 =$

$12 \cdot 5 =$

$12 \cdot 4 =$

$7 \cdot 10 =$

$8 \cdot 11 =$

$1 \cdot 3 =$

$3 \cdot 4 =$

$6 \cdot 5 =$

$8 \cdot 2 =$

Solve the following multiplication problems. You have exactly one minute!

$4 \cdot 7 =$

$5 \cdot 9 =$

$7 \cdot 3 =$

$10 \cdot 8 =$

$12 \cdot 5 =$

$12 \cdot 4 =$

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$8 \cdot 11 =$

$1 \cdot 3 =$

$3 \cdot 4 =$

$6 \cdot 5 =$

$8 \cdot 2 =$

Multiply the following special fractions. Remember to simplify your answers.

1) $\frac{3}{4} \cdot 8$

2) $\frac{2}{3} \cdot 6$

3) $\frac{4}{5} \cdot 10$

4) $\frac{5}{7} \cdot 7$

Multiply the following special fractions. Remember to simplify your answers.

1) $\frac{3}{4} \cdot 8$

2) $\frac{2}{3} \cdot 6$

3) $\frac{4}{5} \cdot 10$

4) $\frac{5}{7} \cdot 7$

Fractions of Collections

Section → Introduction

So far, we've been finding fractions of one whole.

Ex:  = $\frac{1}{4}$

Today, we'll be finding fractions of collections (a bunch of) objects.

To do this, we will use the following fact: "of" means multiply.

Section → Examples

Ex: Find three-fourths of the following collection of apples:



There are 8 apples. So, we are finding three-fourths

$$\text{of } 8 = \frac{3}{4} \cdot 8 = \frac{3}{4} \cdot \frac{8}{1} = \frac{24}{4} = 6.$$

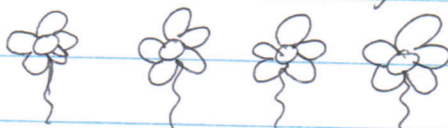
So, the answer is 6 apples.

Ex: Find two-thirds of the following collection of basketballs:



$$\frac{2}{3} \cdot 6 = \frac{2}{3} \cdot \frac{6}{1} = \frac{12}{3} = \boxed{4 \text{ basketballs}}$$

Ex: Find three-halves of the following collection of flowers:

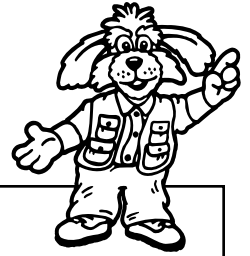


$$\frac{3}{2} \cdot 4 = \frac{3}{2} \cdot \frac{4}{1} = \frac{12}{2} = \boxed{6 \text{ flowers}}$$

Name _____

Explore a Fraction of a Set

Remember! The bottom number of a fraction tells how many equal parts in all.



1. Draw 5 leaves.

Color some orange.

Color the rest brown.

What fraction is brown?

_____ are brown

2. Draw 8 bows. Color

some red. Color some

blue. Color the rest green.

What fraction is blue?

_____ are blue

3. Draw 6 bananas. Color

some yellow. Color the

rest green.

What fraction is green?

_____ are green

4. Draw 10 circles. Color

some red. Color some green.

Color some orange. Color

the rest purple.

What fraction is red?

_____ are red

5. Draw 12 apples. Color 6 red.

Color some green. Color the

rest yellow.

What fraction is yellow?

_____ are yellow

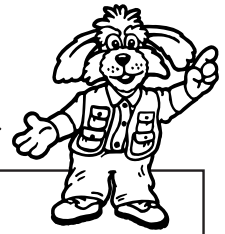
Notes for Home Your child explored fractions of sets. *Home Activity:* Have your child tell what fraction of the apples in Exercise 5 are green and what fraction is red.

Name _____

Explore a Fraction of a Set

Answers will vary.

Remember! The bottom number of a fraction tells how many equal parts in all.



- | | |
|---|------------------|
| 1. Draw 5 leaves.
Color some orange.
Color the rest brown.
What fraction is brown? | _____ are brown |
| 2. Draw 8 bows. Color
some red. Color some
blue. Color the rest green.
What fraction is blue? | _____ are blue |
| 3. Draw 6 bananas. Color
some yellow. Color the
rest green.
What fraction is green? | _____ are green |
| 4. Draw 10 circles. Color
some red. Color some green.
Color some orange. Color
the rest purple.
What fraction is red? | _____ are red |
| 5. Draw 12 apples. Color 6 red.
Color some green. Color the
rest yellow.
What fraction is yellow? | _____ are yellow |

Notes for Home Your child explored fractions of sets. *Home Activity:* Have your child tell what fraction of the apples in Exercise 5 are green and what fraction is red.

Ex: Find one-third of the following collection of apples:



$$\frac{1}{3} \text{ of } 6 = \frac{1}{3} \cdot 6 = \frac{1}{3} \cdot \frac{6}{1} = \frac{6}{3} = 2 \text{ apples}$$

1) Find one-fourth of the following collection of cups:



2) Find two-thirds of the following collection of paper clips:



3) Find three-fifths of the following collection of apples:



4) Find one-half of the following collection of laptops:



5) Find two-thirds of the following collection of pencils:



6) Find three-halves of the following collection of books:



7) Find two-fifths of the following collection of basketballs:



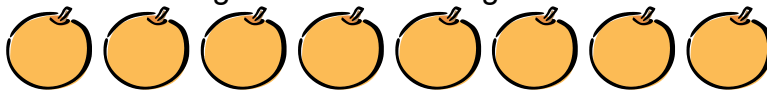
8) Find two-thirds of the following collection of water bottles:



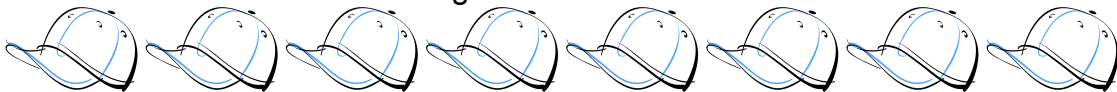
9) Find three-fifths of the following collection of puppies:



10) Find one-half of the following collection of oranges:



11) Find three-fourths of the following collection of hats:



12) Find one-third of the following collection of cell phones:



13) Find two-thirds of the following collection of toilet paper:



14) Find one-half of the following collection of guitars:



15) Find five-sevenths of the following collection of roses:

