

## Lesson 9-1: Fractions and Division

### Solve and Share

**Content Standard:** 5.NF.B.3

**I Can Statement:** I can understand how fractions are related to division.

**Four people want waffles for breakfast. There are 6 waffles left. How can 6 waffles be shared equally among 4 people? How much does each person get? Write and solve a division equation.**

## Lesson 9- 1: Independent Practice

Write a division expression for each fraction.

1.  $\frac{1}{9}$

2.  $\frac{7}{8}$

3.  $\frac{6}{7}$

4.  $\frac{1}{4}$

5.  $\frac{4}{9}$

6.  $\frac{8}{15}$

Write each division expression as a fraction.

7.  $9 \div 11$

8.  $1 \div 10$

9.  $7 \div 13$

10.  $11 \div 17$

11.  $25 \div 75$

Tell what fraction each person gets when they share equally.

12. 8 students share 6 breakfast bars.

13. 6 soccer players share 5 oranges.

14. 10 friends share 7 dollars

15. 8 friends share 8 muffins

## Lesson 9-2: Fractions and Mixed Numbers as Quotients Solve and Share

**Content Standard:** 5.NF.B.3

**I Can Statement:** I can show quotients as fractions and mixed number.

Jonah has an 8-pound bag of potting soil. He divides it evenly among 5 flower pots. How much soil is in each pot?

### Lesson 9-2: Independent Practice

Write each quotient as a fraction or mixed number. Simplify when you can.

1) 2 friends share 3 apples.

2) 3 students share 5 breakfast bars.

3)  $9 \div 8$

4)  $23 \div 10$

5)  $18 \div 4$

6)  $5 \div 9$

7)  $11 \div 6$

8)  $1 \div 5$

### Lesson 9-3: Use Multiplication to Divide Solve and Share

Content Standard: 5.NF.B.3

I Can Statement: I can connect dividing by a fraction to multiplication.

A sandwich shop prepares large wraps and cuts them into fourths. Each fourth is one serving. William buys 5 whole wraps for a party. How many servings in all does he get?

### Lesson 9-3: Independent Practice

Find each quotient showing multiplication to check your work.

1)  $3 \div \frac{1}{4}$

2)  $2 \div \frac{1}{12}$

3)  $4 \div \frac{1}{9}$

4)  $3 \div \frac{1}{6}$

5)  $5 \div \frac{1}{6}$

6)  $4 \div \frac{1}{8}$

7)  $3 \div \frac{1}{3}$

8)  $3 \div \frac{1}{10}$

## Lesson 9-4: Divide Whole Numbers By Unit Fractions Solve and Share

**Content Standard:** 5.NF.B.7b, 5.NF.B.7c

**I Can Statement:** I can divide a whole number by a unit fraction.

**One ball of dough can be stretched into a circle to make a pizza. After the pizza is cooked, it is cut into 8 equal slices. How many slices of pizza can you make with three balls of dough?**

## Lesson 9-4: Independent Practice

Find each quotient.

1)  $4 \div \frac{1}{2}$

2)  $2 \div \frac{1}{8}$

3)  $8 \div \frac{1}{3}$

4)  $3 \div \frac{1}{10}$

5)  $2 \div \frac{1}{3}$

6)  $9 \div \frac{1}{8}$

7)  $15 \div \frac{1}{5}$

8)  $6 \div \frac{1}{4}$

## Lesson 9-5: Divide Unit Fractions by Whole Numbers Solve and Share

**Content Standard:** 5.NF.B.7a, 5.NF.B.7c

**I Can Statement:** I can divide a unit fraction by a whole number.

Yesterday, the cooking club made a pan of lasagna. They left half of the lasagna for 4 members of the photography club to share equally. What fraction of the pan of lasagna did each photography club member get?

## Lesson 9-5: Independent Practice

Find each answer.

- 1) Jamie cut a rope into thirds. He used two of the pieces to make a swing. He used equal lengths of the leftover rope on four picture frames. What fraction of the original rope did he use for each picture frame?
- 2) One half of an apple pie is left for 5 family members to share equally. What fraction of the original pie will each member get?

3)  $\frac{1}{6} \div 2$

4)  $\frac{1}{3} \div 4$

5)  $\frac{1}{4} \div 5$

6)  $\frac{1}{5} \div 3$

7)  $\frac{1}{4} \div 3$

8)  $\frac{1}{2} \div 7$

## Lesson 9-6: Divide Whole Numbers and Unit Fractions Solve and Share

**Content Standard:** 5.NF.B.7a, 5.NF.B.7b, 5.NF.B.7c

**I Can Statement:** I can divide with unit fractions.

The Brown family is planting  $\frac{1}{3}$  of their garden with flowers,  $\frac{1}{3}$  with berries, and  $\frac{1}{3}$  with vegetables. The vegetable section has equal parts of carrots, onions, peppers, and tomatoes. What fraction of the garden is planted with carrots?

### Lesson 9-6: Independent Practice

Find each quotient.

1) Jordan says that  $6 \div \frac{1}{2} = 3$ . Is he correct? If not, justify your reasoning and give the correct quotient.

2) Keiko divided 5 cups of milk into  $\frac{1}{4}$  cup portions. How many  $\frac{1}{4}$  cup portions did Keiko have?

3)  $5 \div \frac{1}{2}$

4)  $\frac{1}{2} \div 5$

5)  $6 \div \frac{1}{3}$

6)  $\frac{1}{3} \div 6$

7)  $2 \div \frac{1}{4}$

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

## Lesson 9-7: Solve Problems using Division

### Solve and Share

**Content Standard:** 5.NF.B.7c

**I Can Statement:** I can solve division problems involving unit fractions.

**Organizers of an architectural tour need to set up information tables every  $\frac{1}{8}$  mile along the 6-mile tour, beginning  $\frac{1}{8}$  mile from the start of the tour. Each table needs 2 signs. How many signs do the organizers need?**

## Lesson 9-7: Independent Practice

Find each quotient.

- 1) Tamara needs tiles to make a border for her bathroom wall. The border will be 9 feet long and  $\frac{1}{3}$  foot wide. Each tile measures  $\frac{1}{3}$  foot by  $\frac{1}{3}$  foot. Each box of tiles contains 6 tiles. How many boxes of tiles does Tamara need?

- 2) Robert wants to use all the ingredients listed in the table at the right to make trail mix. How many  $\frac{1}{2}$  pound packages of trail mix can he make?

Ingredient	Weight (in pounds)
Dried Apples	$2\frac{1}{2}$
Pecans	4
Raisins	$1\frac{1}{2}$

- 3) Sophia uses  $\frac{1}{2}$  pound of white flour to make one loaf of bread and  $\frac{1}{4}$  pound of cake flour to make one cake. How many cakes and how many loaves of bread can Sophia make with the amount of flour she has?

Flour in Pantry	
Kind of Flour	Amount
Cake	3 pounds
White	2 pounds
Whole Wheat	4 pounds

## **Lesson 9-5: Divide Unit Fractions by Whole Numbers**

### **Solve and Share**

**Content Standard:** 5.NF.B.7a, 5.NF.B.7c

**I Can Statement:** I can divide a unit fraction by a whole number.

**Yesterday, the cooking club made a pan of lasagna. They left half of the lasagna for 4 members of the photography club to share equally. What fraction of the pan of lasagna did each photography club member get?**