



# PROBLEM SET SAMPLE



## Grade 6 Math

**Unit 1:** Understanding and  
Representing Ratios - Lesson 3

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

**Problem 1**

Shay makes one batch of sugar cookies using 2 cups of sugar and 3 cups of flour.

- a. Draw a picture to represent the relationship between sugar and flour in Shay's recipe.
  
  
  
  
- b. Shay would like to make 3 batches of sugar cookies. How many cups of sugar and how many cups of flour does Shay need? Show or explain your reasoning.
  
  
  
  
- c. Shay would like to make the cookies taste more sweet. Explain how she can make a batch of cookies taste more sweet than her original recipe.

**Problem 2**

A bakery sells combination bags of bagels and donuts in the ratio of 3:1. The bakery has 12 bagels and 4 donuts, as shown in the diagram below.



How many combination bags can the bakery make the bagels and donuts shown above? Show or explain your work.

**Problem 3**

The color Sunset Yellow can be made by mixing 5 pints of yellow with 2 pints of orange paint.

- Name another combination of yellow and orange paint that will make Sunset Yellow.
- Name a combination of yellow and orange paint that will be more yellow than Sunset Yellow.
- Name a combination of paint that will be more orange than Sunset Yellow.

**Problem 4**

One batch of Greg's specialty barbeque sauce calls for 3 tablespoons of ketchup and 2 tablespoons of vinegar.

- Draw a picture to represent the ketchup and vinegar in one batch of Greg's barbeque sauce.
- Add to your drawing above so it shows the ketchup and vinegar in 3 batches of barbeque sauce.

**Problem 5**

Write two ratios that are equivalent to 2:1.

**Problem 6**

Write two ratios that are equivalent to 5:20.

**Problem 7**

Rob attends 3 music classes for \$15.

- What ratio represents this situation?
- Find an equivalent ratio for the situation. Show or explain your thinking.

**Problem 8**

Victor made chocolate milk by mixing 10 ounces of milk with 2 teaspoons of chocolate syrup. Which of the combinations of milk and chocolate syrup below would not taste the same as Victor's chocolate milk?

- 5 ounces of milk and 1 teaspoon of chocolate syrup
- 15 ounces of milk and 7 teaspoons of chocolate syrup
- 20 ounces of milk and 4 teaspoons of chocolate syrup
- 30 ounces of milk and 6 teaspoons of chocolate syrup