Equivalent Ratios

Ratios & Rates

Name: _____ Date: _____ Grade 6

1. The diagram shows the blue paint and white paint needed for 3 batches of light blue paint. What is the ratio of blue paint to white paint for 1 batch?

Blue Paint (tsp) 

White Paint (tsp) 

Ratio for 1 batch: _____

2. The diagram shows the red dye and yellow dye needed for 4 batches of orange dye. What is the ratio of yellow dye to red dye for 1 batch?

Red Dye (tsp) 

Yellow Dye (tsp) 

Ratio for 1 batch: _____

3. Kai makes purple paint by mixing 12 tablespoons of blue paint with 3 tablespoons of red paint. Select all the mixtures that make the same purple, but in a smaller amount.

- ☐ **A.** Mix 10 tablespoons of blue with 2 tablespoons of red.
- ☐ **B.** For every tablespoon of red, mix in 4 tablespoons of blue.
- ☐ **C.** Mix red and blue in the ratio 4 : 1 (red to blue).
- ☐ **D.** For every 2 tablespoons of red, mix in 8 tablespoons of blue.
- ☐ **E.** Mix 6 tablespoons of blue with 3 tablespoons of red.
- ☐ **F.** Mix 8 tablespoons of blue with 2 tablespoons of red.

4. Rosa makes a party drink by mixing 10 cups of iced tea with 15 cups of lemonade.

a What is the ratio of lemonade to iced tea? _____

b If Rosa uses 4 cups of iced tea, how many cups of lemonade keep the taste the same? _____

c If Rosa uses 9 cups of lemonade, how many cups of iced tea keep the taste the same? _____

5. To make 1 batch of pale green paint, Theo mixes 2 cups of green paint with 1 gallon of white paint. Select all the mixtures that are a darker green than Theo's.

- ☐ **A.** Add more white paint to the mixture.
- ☐ **B.** Mix 4 cups of green paint with 1 gallon of white paint.
- ☐ **C.** Mix 2 cups of green paint with 2 gallons of white paint.
- ☐ **D.** Add more green paint to the mixture.
- ☐ **E.** Mix 2 cups of green paint with $\frac{1}{2}$ gallon of white paint.

6. To dye yarn, use 600 milliliters of water for every 20 grams of yarn. Complete the table.

Water (mL)	Yarn (g)
600	20
	5
60	
	1

7. The directions for a big batch of muffin mix say to use 30 cups of flour and 18 cups of milk.

a Ben wants to make half the recipe. What ratio of flour to milk represents half? _____

b Lena wants to use 10 cups of flour and 6 cups of milk. Is her ratio equivalent to the directions? Explain your thinking.

8. Green paint can be made by mixing 24 teaspoons of blue paint and 16 teaspoons of yellow paint. Nia and Leo each made a smaller amount. Does either mixture make the same green? Explain your thinking.

Nia: Blue 

Nia: Yellow 

Leo: Blue 

Leo: Yellow 