

Comparing and Graphing Ratios

Activity 1

- You make purple frosting by adding 1 drop of red food coloring for every 3 drops of blue food coloring.
- Your teacher makes purple frosting by adding 3 drops of red food coloring for every 5 drops of blue food coloring.
- **a.** Complete the ratio table for each frosting mixture.

Your Frosting		
Drops of Red	Drops of Blue	
1		
2		
3		
4		
5		

	Was and A	
Your Teacher's Frosting		
Drops of Red	Drops of Blue	
3		
6		
9		
12		
15		

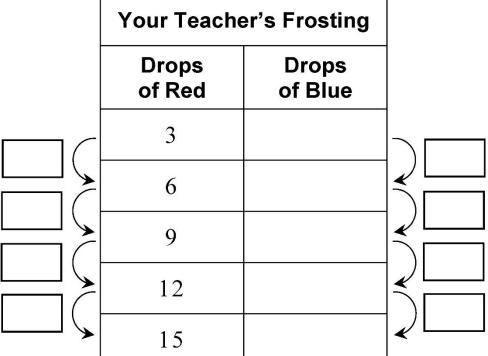
b. Whose frosting is bluer? Whose frosting is redder? Justify your answers.



Activity 2

Work with a partner. The graph on the next page shows the values from the ratio table for your teacher's frosting.

- **a.** Complete the table and the graph on the next page.
- **b.** Explain the relationship between the entries in the ratio table and the points on the graph.



Analyzing

4. IN YOUR OWN WORDS How can you compare two ratios?

5. PRECISION Your teacher's frosting mixture has 7 drops of red in it. How can you use the graph to find how many drops of blue are needed to make the purple frosting? Is your answer exact? Explain.

Example 1

You mix 8 tablespoons of hot sauce and 3 cups of salsa in a green bowl. You mix 12 tablespoons of hot sauce and 4 cups of salsa in an orange bowl. Which mixture is hotter?

Green Bowl

Hot Sauce (tablespoons)	8	
Salsa (cups)	3	

Orange Bowl

Hot Sauce (tablespoons)	12	
Salsa (cups)	4	

Example 2





Which bag of dog food is the better buy?

20-Pound Bag

30-Pound Bag

Cost (dollars)	
Food (pounds)	

Cost (dollars)	
Food (pounds)	



a. Complete the ratio table for each aircraft. Which rises faster?

Balloon		
Time (seconds)	Height (meters)	

Blimp	
Time (seconds)	Height (meters)



Rises 9 meters every 3 seconds.