Comparing Ratios
Student Activity

Name _____

Class _____

In these activities you will work together to use ratio tables to solve problems. After completing each activity, discuss and/or present your findings to the rest of the class.

Activity 1 [Page 1.3]

1. Select the Reset button to return to the original display. Think of another strategy to compare the two mixtures to see which is redder. Check your strategy using the TNS activity and explain how it supports your reasoning.

2. Reset and change one ratio to 4 cans of red paint to 3 cans of yellow paint and the other to 6 cans of red paint to 4 cans of yellow paint. Select Enter to generate the two tables after you have entered the ratios.

   a. Explain at least two ways to decide which mixture is redder.

   b. Betina said, "For 4 to 3, there are 3 red to 3 yellow and 1 red left over. But for 6 to 4, there are 4 red to 4 yellow with 2 red cans left over. This means that the ratio 6:4 is redder because there are more red cans." Do you agree with Betina? Explain your reasoning.

   c. Carmela suggested looking at the rows that both had 24; 24:18 in the 4:3 table and 36:24 in the 6:4 table. What would you say to Carmela?

d. Why is it important when comparing two mixtures to have either the same number of cans of red paint in both mixtures or the same number of cans of yellow paint in both mixtures?

3. a. How would you use the cans of yellow paint to find the redder of two mixtures if one mixture was 7 cans of red paint to 2 cans of yellow paint and another was 8 cans of red paint to 3 cans of yellow paint?

    b. Check your answer using the TNS activity.

    c. How would you use the cans of red paint to find the redder mixture of the two described in part a?

Activity 2 [Page 2.1]

1. Consider two mixtures:

   Mixture 1: 1 can of red paint to 4 cans of yellow paint

   Mixture 2: 4 red cans of red paint to 7 cans of yellow paint

   Tori says these will both be the same shade of red because to get Mixture 2, you add 3 cans of red paint to the 1 can of red in Mixture 1; and add 3 cans of yellow paint to the 4 cans of yellow paint in Mixture 1 (1:4 ratio) to get Mixture 2 (4:7 ratio). What would you say to Tori?

2. Describe three different strategies for comparing ratios.