

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

Mr. Johnson  
Math 8

### Lesson 5.7 – Comparing Ratios

#### Investigate:

Complete the quick investigate activity on page 279 of your textbook. You may work with a partner if you choose. Determine which punch is stronger or if both drinks are of the same strength. State your strategy and solution in the space below and be prepared to share with the class.

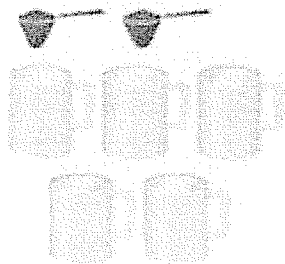
#### Notes:

Understanding how to compare ratios is a very important skill to have. You will use these skills in the marketplace and on the job.

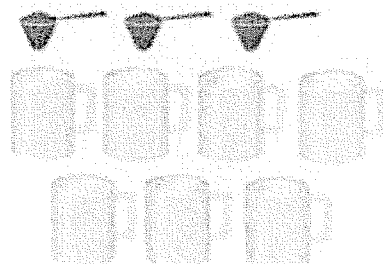
Question: Who makes the stronger coffee?



Erica makes her coffee with  
2 scoops of coffee to 5 cups of water.



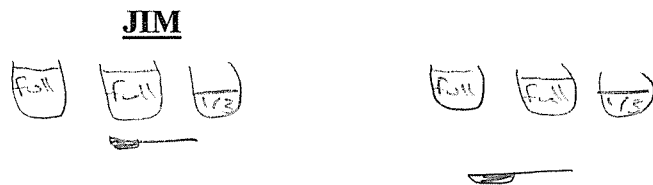
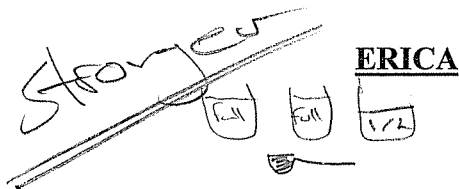
Jim makes his coffee with  
3 scoops of coffee to 7 cups of water.



There are three main strategies for comparing ratios.

#1: Draw a picture

Find out how much water is used for 1 scoop of coffee



∴ 1 scoop =  $2\frac{1}{2}$  cups of water

∴ 1 scoop =  $2\frac{1}{3}$  cups of water

#2: Use Equivalent Ratios

Find out how much coffee is used for the same amount of water. Write equivalent ratios with the same second term. Then compare the first terms:

Initially Erica's ratio is 2:5 & Jim's is 3:7

~~Stronger~~

ERICA	
Coffee	Water
2	5
4	10
6	15
8	20
10	25
12	30
14	35

JIM	
Coffee	Water
3	7
6	14
9	21
12	28
15	35

#3: Equivalent Ratios with 1 as the second term

This way also involves equivalent ratios only we are making comparisons by setting the second term of the ratio as 1.

Erica =  $2:\frac{5}{5}$   
~~Stronger~~ =  $\frac{2}{5}:1$   
 =  $0.4:1$

Jim =  $\frac{3}{7}:\frac{7}{7}$   
 =  $\frac{3}{7}:1$   
 =  $0.43:1$

Assignment:

Pg. 291-293  
 #'s 4-13, 18