Name_____

Reteaching Page
8.1 – Ratios and Rates

A ratio is a comparison of two quantities by division.

You can compare –

part to part	Boys to Girls	11 to 13	
part to whole	Boys to Class	11 to 24	
whole to part	Class to Boys	24 to 11	

Our Class	
Boys	Girls
11	13

The tricky part about ratios is that you need to make sure that the numbers are written in the same order as they appear in the word expression. Which of the following shows the ratio of girls to boys?

11:13   13:11   13:24

Ratios can be written 3 ways.

Girls to Class   Girls **:** Class $Girls/Class$

13 to 24   13:24 $^{13}/_{24}$

Write each of the following ratios.

30 day Months to Months   Weekdays : Weekends $Adults\ in\ your\ family/Children\ in\ your\ family$

_____   _____   _____

Equivalent Ratios are just like equivalent fractions except that instead of naming the same a part of a number, they name the same comparison.

The ratio of inches in a foot is 12 : 1. The ratio of inches in 10 feet is 120 : 10.

You can check for equivalence using cross multiplication. 10 * 12 = 120 and 1 * 120 is 120.

$$\frac{12}{1} = \frac{120}{10}$$

Remember the "Stoney Method" will help you to easily create equivalent ratios.

$$\frac{4}{5} = \frac{n}{60}$$ 60 * 4 = 240 ÷ 5 = 48. The "Stoney Method" quickly shows you that in order for these ratios to be equivalent **n** must be 48.

Write 3 equivalent ratios for each of the following. (multiply or divide by easy versions of 1 ... $^2/_2$; $^5/_5$; $^{10}/_{10}$)

8 horses : 5 ponies   3 girls to 4 boys   18 fish : 6 fisherman

_____   _____   _____

_____   _____   _____

_____   _____   _____

Reteaching Page
8.1(b) – Ratios and Rates

A rate is a comparison of two quantities that have different units of measure.
If you find 6 cans of Coke for $2.50 you could write the rate...

$$\frac{6 \text{ cans}}{\$2.50}$$

Rates give you a chance to find **unit rate** which is very helpful when you are shopping. A unit rate is created when you reduce one of the terms in a rate to 1.

Let's say you and four of your friends want some candy.
You go to the grocery and notice that you can buy 5 oranges for $2.00.
The rate is 5 : $2.00.
The **unit rate** is 1 : $0.40.
You know that everyone needs to chip in $0.40 to buy the oranges and enjoy nature's candy!

We have 24 students to put into 6 groups	What is the rate?	What is the unit rate?
	24 students to 6 groups	4 student : 1 group
Your family has traveled 220 miles in 4 hours.	What is the rate? _____	What is the unit rate? _____
You have 16 photos to put on 4 pages in your photo album.	What is the rate? _____	What is the unit rate? _____
There are 35 days in 5 weeks.	What is the rate? _____	What is the unit rate? _____
Your family car traveled 252 miles on 9 gallons of gasoline.	What is the rate? _____	What is the unit rate? _____

Which is the better deal?

Soda: 24 oz. for $0.89 **or** 20 oz. for 0.75   Peanuts: 10 oz. for $1.05 or 24 oz $2.60

_____   _____