Cumulative Review

Determine whether each pair of ratios is proportional by using cross products.

1. $\frac{5}{6}$ $\frac{6}{7}$

2. $\frac{3}{8}$ $\frac{4}{12}$

Proportion			Solve	Multiplied numerators by...
3. $\frac{2 \text{ shirts}}{6 \text{ ties}} = \frac{x \text{ shirts}}{15 \text{ ties}}$	Numerators			
	Denominators			
	Common denominator			
4. $\frac{x}{6} = \frac{6}{9}$	Numerators			
	Denominators			
	Common denominator			

Practice

Work in a small group to solve these problems. Be prepared to share your answers and reasoning with the whole group.

1. Arturo can run 20 meters in 5 seconds. At this pace, how long would it take him to run 75 meters?

2. Julia counted 68 seats in the first 4 rows of the stadium. If the stadium has 90 rows, how many total seats are there?

3. Max is studying for a history exam. He needs to read a chapter with 65 pages in his history textbook. If he can read 2 pages every 10 minutes, how many minutes will it take him to read the entire chapter?

Name: _____

Independent Practice

1. Jason is selling candy bars for a fundraiser. His goal is to earn $300. At $6 per 4 candy bars, how many will he have to sell to reach his goal?

2. Sara is buying soda for her party. Soda is on sale, $3 for 2 liters. How much will she pay for 7 liters of soda?

3. Austin has an average of 16 sunny days in February. How many sunny days could you expect during each week of February?

Answer Key: Cumulative Review

Determine whether each pair of ratios is proportional by using cross products.

1. $\frac{5}{6}$ $\frac{6}{7}$

$36 \neq 35$
not proportional

2. $\frac{3}{8}$ $\frac{4}{12}$

$32 \neq 36$
not proportional

Proportion			Solve	Multiplied numerators by...
3. $\frac{2 \text{ shirts}}{6 \text{ ties}} = \frac{x \text{ shirts}}{15 \text{ ties}}$	Numerators	2 and x	$\frac{2}{6} = \frac{x}{15}$	6 and 15
	Denominators	6 and 15	$\frac{2 \cdot 15}{6 \cdot 15} = \frac{x \cdot 6}{15 \cdot 6}$	
	Common denominator	90	$\frac{30}{90} = \frac{6x}{90}$ $30 = 6x$ $x = 5$ shirts	
4. $\frac{x}{6} = \frac{6}{9}$	Numerators	x and 6	$\frac{x}{6} = \frac{6}{9}$	6 and 9
	Denominators	6 and 9	$\frac{x \cdot 9}{6 \cdot 9} = \frac{6 \cdot 6}{9 \cdot 6}$	
	Common denominator	54	$\frac{9x}{54} = \frac{36}{54}$ $9x = 36$ $x = 4$	

Answer Key: Practice

Work in a small group to solve these problems. Be prepared to share your answers and reasoning with the whole group.

1. Arturo can run 20 meters in 5 seconds. At this pace, how long would it take him to run 75 meters?

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{20}{5} = \frac{75}{x}$$

$$20x = 375$$
$$x = 18.75 \text{ seconds}$$

2. Julia counted 68 seats in the first 4 rows of the stadium. If the stadium has 90 rows, how many total seats are there?

$$\frac{\text{rows}}{\text{seats}} \quad \frac{4}{68} = \frac{90}{x}$$

$$4x = 6{,}120$$
$$x = 1{,}530 \text{ seats}$$

3. Max is studying for a history exam. He needs to read a chapter with 65 pages in his history textbook. If he can read 2 pages every 10 minutes, how many minutes will it take him to read the entire chapter?

$$\frac{\text{pages}}{\text{minutes}} \quad \frac{65}{x} = \frac{2}{10}$$

$$650 = 2x$$
$$x = 325 \text{ minutes}$$

Answer Key: Independent Practice

1. Jason is selling candy bars for a fundraiser. His goal is to earn $300. At $6 per 4 candy bars, how many will he have to sell to reach his goal?

$$\frac{\text{candy bars}}{\text{dollars}} \quad \frac{x}{300} = \frac{4}{6}$$

$$6x = 1{,}200$$
$$x = 200 \text{ candy bars}$$

2. Sara is buying soda for her party. Soda is on sale, $3 for 2 liters. How much will she pay for 7 liters of soda?

$$\frac{\text{dollars}}{\text{liters}} \quad \frac{3}{2} = \frac{x}{7}$$

$$21 = 2x$$
$$x = \$10.50$$

3. Austin has an average of 16 sunny days in February. How many sunny days could you expect during each week of February?

$$\frac{\text{sunny days}}{\text{total days}} \quad \frac{16}{28} = \frac{x}{7}$$

$$112 = 28x$$
$$x = 4 \text{ days}$$