

HW #14 Chapter 5 REVIEW

Name: Key

**See pages 205-207 in your book if you need additional help. **

Lesson 5.1 Ratios and Rates

Find the Unit Rate

1. 289 miles on 10 gallons

$$\frac{289 \text{ mi}}{10 \text{ gal}} = \frac{28.9 \text{ miles}}{1 \text{ gallon}}$$

- 2.

Servings	2	4	6	8
Calories	240	480	720	960

$$\frac{2 \text{ servings}}{240 \text{ cal}} = \frac{1 \text{ serving}}{120 \text{ cal}}$$

120 calories per 1 serving

Lesson 5.2 Proportions

Tell whether the ratios form a proportion

3. $\frac{4}{9}$ and $\frac{2}{3}$

$$\frac{4}{9} \stackrel{\times 2}{=} \frac{2}{3} \quad \boxed{\text{NO}}$$

4. $\frac{12}{22}$ and $\frac{18}{33}$

$$\frac{12}{22} \stackrel{\times 1.5}{=} \frac{18}{33} \quad \text{Yes!}$$

5. $\frac{8}{50}$ and $\frac{4}{10}$

$$\frac{8}{50} \stackrel{\times 2}{=} \frac{4}{10} \quad \boxed{\text{NO}}$$

6. $\frac{32}{40}$ and $\frac{12}{15}$

$$\frac{32}{40} \stackrel{\times 2.5}{=} \frac{12}{15} \quad \text{Yes!}$$

Lesson 5.3 Writing Proportions

Use the table to write a proportion. THEN SOLVE!

- 7.

	Game 1	Game 2
Penalties	6	8
Minutes	16	m

$$\frac{6}{16} = \frac{8}{m}$$

$$\frac{6m}{6} = \frac{128}{6}$$

$$m = 21.\bar{3} \text{ minutes}$$

- 8.

	Concert 1	Concert 2
Songs	15	18
Hours	2.5	h

$$\frac{15}{2.5} = \frac{18}{h}$$

$$\frac{15h}{15} = \frac{45}{15}$$

$$h = 3 \text{ hours}$$

Lesson 5.4 Solving Proportions

Solve the proportion.

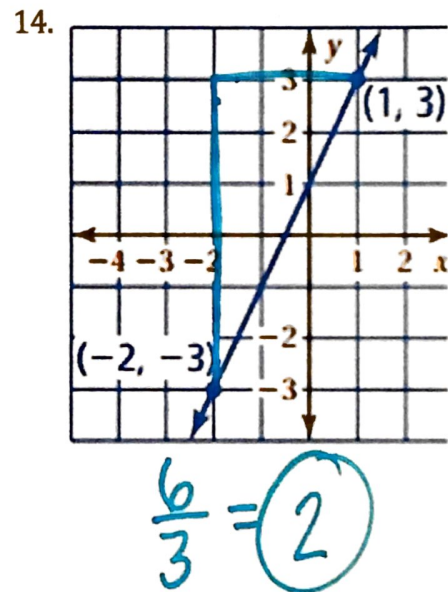
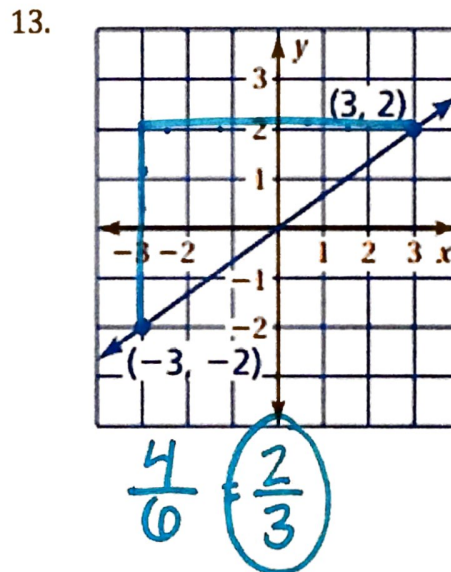
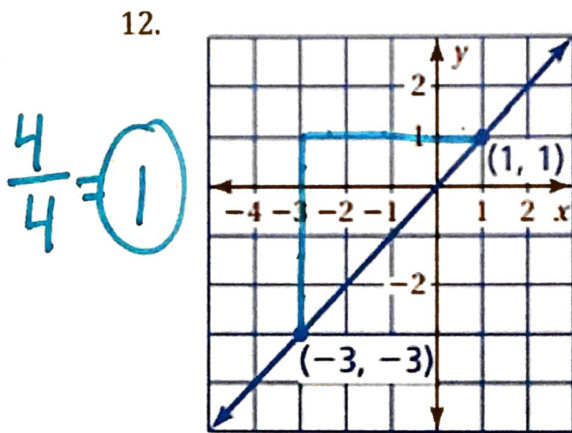
9. $\frac{x}{4} = \frac{2}{5}$
 $\frac{5x}{5} = \frac{8}{5}$
 $x = 1.6$

10. $\frac{5}{12} = \frac{x}{15}$
 $x = 6.25$

11. $\frac{8}{20} = \frac{6}{x}$
 $x = 15$

Lesson 5.5 Slope

Find the slope of the line.



Lesson 5.6 Direct Variation

Tell whether x and y show direct variation. Explain your reasoning.

15. $x + y = 6$

$y = kx$

$y = 6 - x$

Not direct variation

16. $y = 5x$

yes! in the form $y = kx$

17.

x	0	2	4	6	8
y	0	10	20	30	40

Arrows indicate increments of +2 for x and +10 for y.

yes goes through (0,0)

18.

x	0	1	3	5	7
y	1	3	7	11	15

Arrows indicate increments of +2 for x and +4 for y.

Not proportional does not go through (0,0)