

Unit 2 – Review – Part 1

Ratios and Rates

- 1) There are 15 tigers and 25 lions in a nature preserve. Find the ratios of tigers to lions in simplest form.
- 2) A lion can run 75 feet in 15 seconds. What is the unit rate of how fast the lion can run?

Indicate AND explain whether or not the ratios form a proportion.

3) $\frac{4}{9}, \frac{2}{3}$

4) $\frac{32}{40}, \frac{12}{15}$

Proportions

- 5) Use the table to write **two** different proportions.

	Friday	Saturday
Sales	40	85
Returns	32	r

Solve the proportions.

6) $\frac{7}{3} = \frac{b}{18}$

7) $\frac{10}{9} = \frac{5}{k}$

Slope

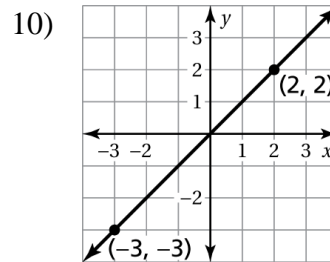
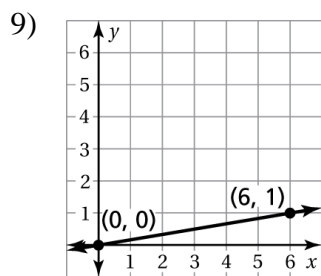
8) What are the three ways (formulas) to describe how to find slope. (Clue: look on your notes.)

$slope =$ _____

$slope =$ _____

$slope =$ _____

Find the slope of the line.



Direct Variation

11) How can you tell if a set of numbers is a direct variation?

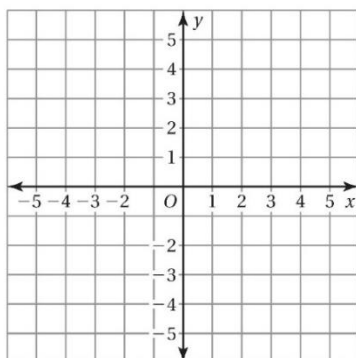
a) _____

b) _____

12) What is the formula for direct variation? _____

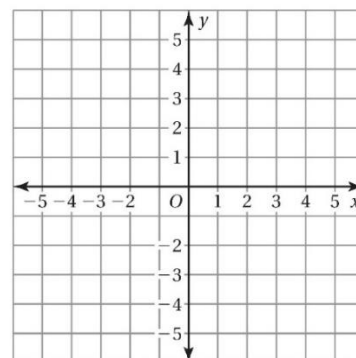
Graph the following. Then tell whether x and y show direct variation. Explain your reasoning. If so, find k .

13) $(-2, -2), (0, 0), (2, 2), (4, 4)$



14)

x	2	4	6
y	1	2	3



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

15) $y = 3x$

16) $y + 3 = x$

Write the percent as a decimal.

16) 73%

17) 32.3%

18) 121.6%

Write the decimal as a percent.

19) 0.65

20) 1.35

21) 0.003

Write and solve a proportion.

22) What number is 80% of 65?

23) 32 is what percent of 200?

24) 125 is what percent of 200?

25) You earned a 90% on a science test. You answered 18 questions correctly. How many questions were on the test?

Identify the percent of change as an *increase* or a *decrease*. Then find the percent of change.

26) 120 pounds to 180 pounds

27) 10 feet to 8 feet

Find the original price, discount, sale price, or selling price.

28) Original price: \$130
Discount: 60%
Sale price: ?

29) Original price: \$32
Discount: ?
Sale price: \$8

30) Cost to store: \$45
Markup: 35%
Selling price: ?

An account earns simple interest. Find the interest earned, principal, interest rate, or time.

31) Interest earned: ?
Principal: \$1450
Interest rate: 9%
Time: 5 years

32) Interest earned: \$10
Principal: \$250
Interest rate: 4%
Time: ?

33) Interest earned: \$40
Principal: \$400
Interest rate: ?
Time: 2 years

34) Interest earned: \$45
Principal: ?
Interest rate: 3%
Time: 2 years