

# 7<sup>th</sup> Advanced

Refer to interactive notebook  
for examples.

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# QUIZIZZ

## Proportional Relationships

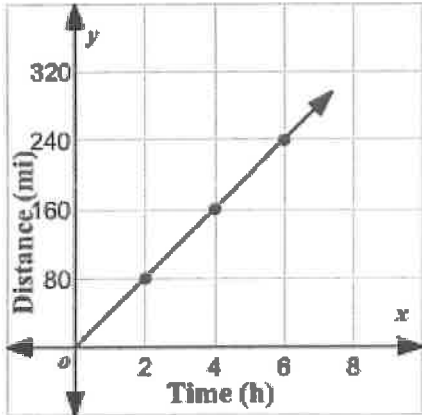
20 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1.



What is the unit rate?

a) 80 miles in 1 hours

b) 20 miles in 1 hours

c) 40 miles in 1 hours

d) 160 miles in 1 hours

2.

<u>X</u>	<u>Y</u>
1	6
2	12
3	18
4	24

Calculate the slope.

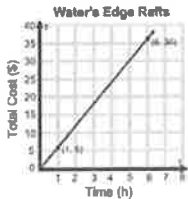
a) 6

b) 1/6

c) -6

d) -1/6

3.



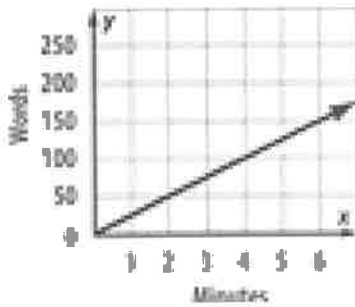
Ryan's Rafts	
Time (h)	Cost (\$)
1	15.00
2	17.25
3	19.50
4	21.75
5	24.00

Which company shows a greater rate of change?

a) Water's Edge Rafts

b) Ryan's Rafts

4.



Which statement matches the graph?

- a) Taylor can write 6 words per minute
- b) Taylor can write 25 words per minute
- c) Taylor can write 50 words per minute
- d) Taylor can write 150 words per minute

5.

Dogs	Paws
2	8
4	16
6	24

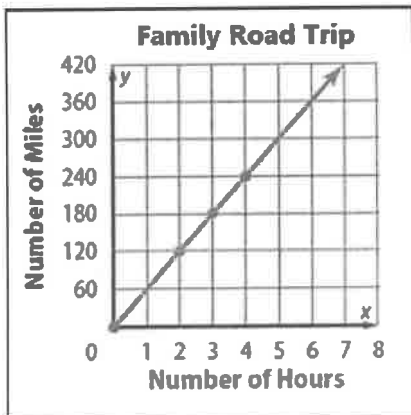
Which statement best describes the relationship between x and y in the table?

- a) Proportional
- b) Not Proportional

6. Samantha drives at a rate of 30 mph. Tracy drives at a rate of 60 miles every 2 hours. Who drives faster?

- a) Samantha
- b) Tracy
- c) They drive the same speed per hour

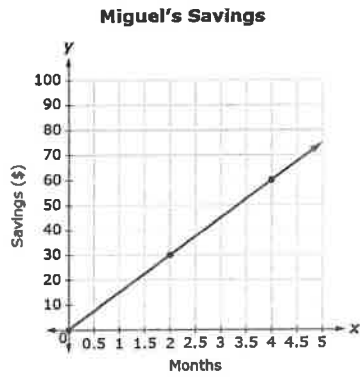
7.



What is the unit rate in this proportional relationship?

- a) 60 miles/1 hour
- b) 120 miles/ 2 hours
- c) 1 mile/ 1 hour

8.



Johnathan saves 25 per month. Who saves more, Miguel or Johnathan?

- a) Johnathan
- b) Miguel
- c) They save the same amount.

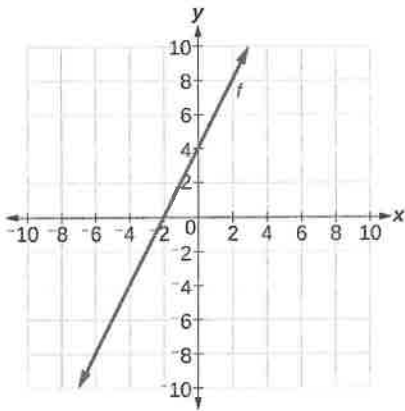
9.

$x$	$y$
0	0
1	1
2	2
3	3
4	4

Select all the relationships that this table represents.

- a) Proportional
- b) Non-Proportional
- c) Linear
- d) slope= 1

10.



What best describes the data on this graph?

- a) This graph is linear and not proportional.
- b) This graph is proportional.
- c) This graph is non-linear.

11. Evan bought 5 pounds of bananas for \$10. How much did he pay per pound?

- a) \$.50 per pound
- b) \$5 per pound
- c) \$2 per pound
- d) \$10 per pound

12. What ratio is equivalent to 4:5? Select all that apply.

a) 8:10

b) 20:25

c) 5:6

d) 1:5/4

13. Jane wants to triple her lemonade recipe. For two drinks, she mixes 3 lemons with 2 cups of water. What will she need to triple her recipe?

a) 6 lemons, 4 cups of water

b) 8 lemons, 6 cups of water

c) 9 lemons, 6 cups of water

d) 12 lemons, 8 cups of water

14. Carley is throwing a party. She needs 3 liters of soda for every 12 guests. If there are 48 guests attending the party, how many liters of soda will she need?

a) 144 liters

b) 36 liters

c) 8 liters

d) 12 liters

15. What is the reciprocal of 7?

a) 1/2

b) 7/1

c) 2

d) 1/7

16.

Time (hours)	Distance (miles)
2	90
3	135
5	225
6	270

What is the constant of proportionality?

a) 45

b) 50

c) 27

d) 1

17.

meters	kilometers
1,000	1
3,500	3.5
500	0.5
75	0.075

What is the constant of proportionality from meters to kilometers?

 a) 1,000 b) 1 c)  $1/1,000$  d)  $1/2$ 

18. Concrete building blocks weigh 28 pounds each. If  $b$  represents the number of concrete blocks and  $w$  represents the weight, what equation relates the two variables?

 a)  $28/w=b$  b)  $28w=b$  c)  $28b=w$  d)  $28bw$ 

19. A store sells rope by the meter. The equation  $p=0.8L$  represents the price  $p$  (in dollars) of a piece of nylon rope that is  $L$  meters long. How much does the nylon rope cost?

 a) \$8 b) \$80 c) \$0.80 d) \$0.08

20.

honey (tbsp)	flour (c)
8	10
20	
13	
	20

How many tbsp of honey is needed for 20 cups of flour?

 a) 2 b) 18 c) 25 d) 16

**Answer Key**

1. c  
2. a  
3. a  
4. b  
5. a

6. c  
7. a  
8. a  
9. a,c,d  
10. a

11. c  
12. a,b,d  
13. c  
14. d  
15. d

16. a  
17. c  
18. c  
19. c  
20. d

**% problems**

15 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1. If Steve throws the football 50 meters in 3 seconds, what is the average speed (velocity) of the football?

- a) 0.06 m/s                       b) 16.7 m/s  
 c) 150 m/s                       d) 53 m/s

2. Jennifer has a coupon for 25% off her entire meal of \$17.89. What is the discount?

- a) \$13.42                       b) \$4.47  
 c) \$4.48                       d) \$0.44

3. How much commission would a salesperson earn for selling a \$25,000. car? He receives a 18% commission.

- a) \$4500                       b) \$45  
 c) \$29,500                       d) \$2500

4. On a 50 question test, Danielle answered 78% of the questions correctly. How many questions did she get wrong?

- a) 39                       b) 11  
 c) 28                       d) 78

5. Skateboards are on sale for 30% off. The regular price of a skateboard is \$89, what is the discounted price?

- a) \$26.70                       b) \$36.70  
 c) \$62.30                       d) \$54.30

6. Emily receives a 9.8% raise. She currently earns \$1789.46 per month. What will her new monthly earnings be?

- a) \$175.37                       b) \$1964.83  
 c) \$1753.67                       d) \$1950.51





14. 75% of students in Grace's class are 60 inches or taller. If there are 20 students in the class, how many are 60 inches or taller?

a) 15

b) 5

c) 7

d) 12

15. Michael spent \$210 on school supplies and books. This amount was 30% of his savings. How much was his savings?

a) \$700

b) \$63

c) \$630

d) \$763

### Answer Key

- 1. b
- 2. b
- 3. a
- 4. b

- 5. c
- 6. b
- 7. a
- 8. d

- 9. a
- 10. b
- 11. a
- 12. c

- 13. b
- 14. a
- 15. a



## Multi-Step Equations

15 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1. Solve:

$$3(x - 2) = 18$$

a) 6.7

b) 4

c) 8

d) -4

2.  $8v - 4(v + 8) = 8$

a) 2

b) 10

c) 4

d) -4

3.  $2x - 3 + 4x = 27$

a) 12

b) 4

c) 5

d) 15

4.  $5x - 4 + 2x = 3$

a) 1

b) 2

c) 3

d) 4

5.  $3x + 2(4x - 4) = 3$

a) 4

b) 3

c) 2

d) 1

6. Solve the equation:

$$\frac{x}{3} + 10 = 15$$

a) 75

b) 15

c) 25

d) 5

7.  $2x + 3(5x - 7) = 47$

a)  $x = 1$

b)  $x = 2$

c)  $x = 3$

d)  $x = 4$

8. Solve  $-20 = -4x - 6x$

a)  $x = -2$

b)  $x = 10$

c)  $x = 2$

d)  $x = -10$

9.  $6x + 3(-x + 11) = 3$

a)  $-10$

b)  $10$

c)  $15$

d)  $-15$

10.  $1 = 1 + 6b + 2b$

a)  $7$

b)  $0$

c)  $6$

d)  $1$

11. Solve the equation:

$$3(x - 1) = 2x + 9$$

a)  $x = 12$

b) no solution

c)  $x = 10$

d)  $x = 6$

12. Which of the equations has no solution?

a)  $2x + 1 = 5x - 3$

b)  $2(x - 7) = 2x - 14$

c)  $3(2x + 1) = 6x + 1$

d)  $15x - 30 = 0$

13. Solve:

$$3x + 7 = -8$$

a)  $5$

b)  $-5$

c)  $-12$

d)  $-18$

14. Solve.  $5n - 4 = 21$

a)  $10$

b)  $-5$

c)  $5$

d)  $2$

15. Solve.  $-2n - 4 = 32$

a)  $18$

b)  $0$

c)  $16$

d)  $-18$

**Answer Key**

1. c  
2. b  
3. c  
4. a

5. d  
6. b  
7. d  
8. c

9. a  
10. b  
11. a  
12. c

13. b  
14. c  
15. d



## Inequalities

17 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1. Write the inequality:

The Chicago Cubs have won more than 100 games.

a)  $x > 100$

b)  $x < 100$

c)  $x \geq 100$

d)  $x \leq 100$

2. Write the inequality:

You have to be 54 inches or taller to ride the American Eagle

a)  $x > 54$

b)  $x < 54$

c)  $x \geq 54$

d)  $x \leq 54$

3. Solve the inequality:

$$x + 7 > 5$$

a)  $x > 12$

b)  $x > 2$

c)  $x > 35$

4. Solve the inequality:

$$8x \leq 32$$

a)  $x \leq 4$

b)  $x \leq 40$

c)  $x \leq 5$

5. Solve the inequality:

$$x - 10 \geq 5$$

a)  $x \geq 2$

b)  $x \geq 15$

c)  $x \geq 5$



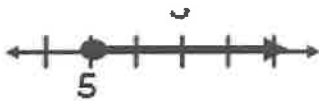


9.



- a) greater than                       b) less than  
 c) less than or equal to             d) greater than or equal to

10.



Which inequality can be represented by the graph?

- a)  $x < 5$                                        b)  $x > 5$   
 c)  $x \leq 5$                                        d)  $x \geq 5$

11. Solve the following inequality:

$$-4x + 14 \leq 54$$

- a)  $x \geq -10$                                        b)  $x \leq -10$   
 c)  $x \geq 10$                                          d)  $x \leq 10$

12. Solve:

$$-4(-7-5x) > 188$$

- a)  $x < -32$                                        b)  $x > -32$   
 c)  $x < 8$      d)  $x > 8$

13. Mike is 6 years younger than twice Iris's age. What expression can be used to find Mike's age?

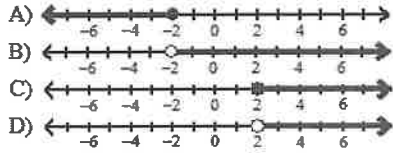
- a)  $6 + 2a$                                        b)  $6 - 2a$   
 c)  $2a - 6$                                          d)  $12 - a$

14. Melissa wants to spend no more than \$300 on school clothes. She spends \$75 on a coat and then wants to buy some sweaters that are on special for \$10 each. Write an inequality to show how many sweaters Melissa can buy. DO NOT

SOLVE

- a)  $75x - 10 \geq 300$                                b)  $75 + 10 \leq 300x$   
 c)  $10x \geq 300$                                        d)  $75 + 10x \leq 300$

15. 1)  $n > -2$



Match the graph with the given solution.

 a) A b) B c) C d) D

16.  $4x - 2 \leq -22$

 a)  $x \geq -5$  b)  $x \geq -6$  c)  $x \leq -6$  d)  $x \leq -5$ 

17.  $7b - 3 < 11$

 a)  $b < 2$  b)  $84 > b$  c)  $b > 2$  d)  $b < 84$

**Answer Key**

1. a
2. c
3. c
4. a
5. b

6. b
7. d
8. a
9. c
10. d

11. a
12. d
13. c
14. d
15. b

16. d
17. a