

Name _____

Date _____

Mini-Quiz # 1 (Regents Review)

Algebra RH



My child has completed this entire assignment by Sunday night.

Parent/Guardian Signature _____

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Part I. Answer 10 questions in this part. Each correct answer will receive 1 credit. No partial credit will be allowed. For each question, any work should be shown to the right side of the problem, when possible. All questions marked **W require appropriate work to be shown or no credit will be given- even if a correct answer is provided. [10]**

1.	2.	3.	4.	5.
6.	7.	8.	9.	10.

W 1. Mason went to the movies and bought two sodas and five boxes of candy for \$18.50. Jadon went to the same movie and bought one soda and three boxes of candy for \$10.50. How much does one box of candy cost?

- (1) \$1.75 (2) \$2.50 (3) \$2.00 (4) \$3.00

2. Kyle solved the linear equation $2(x - 5) = 6x - 2$

Line 1 $2x - 10 = 6x - 2$

Line 2 $-10 = 4x - 2$

Line 3 $-12 = 4x$

Line 4 $-3 = x$

Between what two lines did he make an error?

- (1) Line 1 and Line 2 (3) Line 3 and Line 4
 (2) Line 2 and Line 3 (4) He did not make an error

W 3. Which point lies on the line $4y + 7x = 3$?

- (1) (5, -2) (2) (-1, 1) (3) (1, -1) (4) $(-\frac{1}{2}, -\frac{1}{4})$

4. Which relation *does not* represent a function?

- (1) $\{ (2, -1) (3,4) (4,-7) (5, 4) \}$
- (2) $\{ (x,y) (w,y) (y,x) (z,w) \}$
- (3) $\{ (-3,5) (-2,5) (-1,4) (-2,6) \}$
- (4) $\{ (-1,4) (0,2) (0,2) (1,3) \}$

5. The amount of money, D , in dollars, remaining in Alex's bank account, x days after payday can be modeled by the equation $D = 2315.50 - 165.29x$. Which of the following best describe the meaning of the number 165.29 in the equation?

- (1) The amount of money Alex gets paid each payday
- (2) The amount of money withdrawn from Alex's bank account each day
- (3) The difference between the amount of money in Alex's bank account at payday and the amount of money in Alex's bank account on day x .
- (4) The number of days after payday when no money remains in Alex's bank account.

W6. Express the following equation for m in terms of r , q , and a : $mq - r = ma$

- (1) $\frac{-r}{q+a}$
- (2) $\frac{r}{q-a}$
- (3) $\frac{ma+r}{m}$
- (4) $ma + r$

7. An ice cream store makes a profit of \$14 on every round cake (r) and a profit of \$6 on every sheet cake (s). If the store owner wants to make a profit of at least \$102 each day, which inequality represents how many round cakes and sheet cakes should be sold?

- (1) $14r + 6s < 102$
- (2) $6r + 14s \leq 102$
- (3) $14r + 6s \geq 102$
- (4) $6r + 14s \geq 102$

W8. What is the equation for a line that passes through the points (3,-3) and (5,7)?

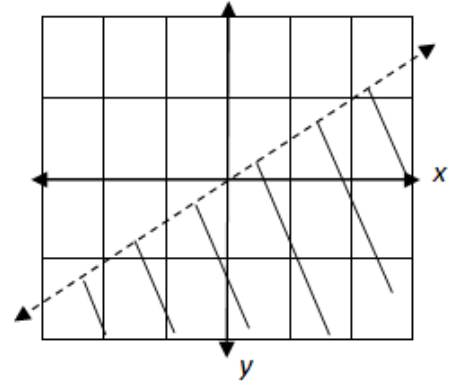
- (1) $y = 2x - 9$
- (2) $y = 5x - 18$
- (3) $y = -\frac{1}{4}x + 7\frac{3}{4}$
- (4) $y = -5x - 9$

9. Which property is illustrated by the equation $(8 + 3) + 5 = (3 + 8) + 5$?

- (1) associative
- (2) commutative
- (3) identity
- (4) distributive

10. Which inequality is represented by the accompanying graph?

- (1) $y \leq \frac{1}{2}x$
- (2) $-2y > -x$
- (3) $y < -\frac{1}{2}x$
- (4) $2y < -x$



Part II. Answer both questions in this part. Each correct answer will receive 2 credits. Clearly indicate all necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. For all questions in this part, a correct numerical answer with no work shown will receive only 1 credit. [2]

11. Zach bought basketball tickets and his cost is modeled by $y = 36x + 45$ where x represents the number of tickets purchased and y is the total cost.

Identify the slope and y -intercept of this equation and explain them in context of the situation.

Part III. Answer both questions in this part. Each correct answer will receive 3 credits. Clearly indicate all necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. For all questions in this part, a correct numerical answer with no work shown will receive only 1 credit. [3]

12. Aydan started an Ebay business to help other people sell their items. His start up costs totaled \$141. If he earns \$8 for every posting, what is the minimum amount of postings that are needed to earn a profit of at least \$320 ?

Part IV. Answer both questions in this part. Each correct answer will receive 5 credits. Clearly indicate all necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. For all questions in this part, a correct numerical answer with no work shown will receive only 1 credit. [10]

13. Alex is 3 years less than double Steve's age. Six years ago Alex was five years younger than Steve will be in 4 years. How old are they now?

14. Solve the following system of equations graphically.

$$y = -x + 5$$
$$2x + 3y = 15$$

