Assessment 4.1.1- 4.1.7 | Algebra 1

Name | _____

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1. In which step is there an error in simplifying the expression?

Step	Algebraic Work
Original Expression	-5x-(x+y)-15y+3y+y
1	-5x-x-y-15y+3y+y
2	-5x-xy-15y+3y+y
3	-5x-xy-12y+y
4	-5x-xy-11y

A. Step 1
B. Step 2
C. Step 2
D. Step 4

2. Simplify the expression completely by combining all terms possible

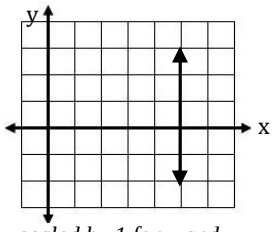
$(3x^2-2x+7) + (2x^2+2x-11)$

3. Evaluate the following expression if r = −4 and p = 8

$$\frac{r^2}{p} - rp$$

A. 34 B. -31
C. 33 D. -33
E. the correct answer is not listed

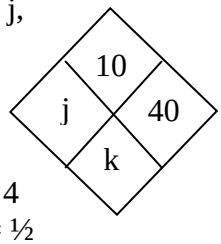
4. Which statement about the following graph is not true?



scaled by 1 for x and y

A. the equation is x = 5
B. there is no y-intercept
C. the slope = 1
D. a vertical line has been graphed
E. the x-intercept is at (5,0)

5. What are the missing values, k and j, in the following diamond problem?



A. k=40¼ j= ¼ B. k= ¼ j= 4
C. k=½ j=40½ D. k= 20 j= ½

6. Which equation has no solution?

A. 3x-x+2 = x+ x +1 B. 145x = 145x

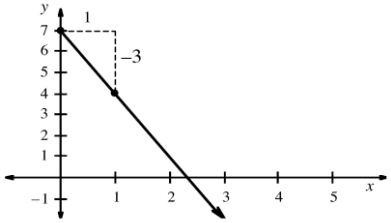
C. 9x-(x+4) = 4 D. x–x+x-x+x = 1+2+3

7. Which equation translates the following scenario?
Four less than nine times a number is eighty-six.

A. 4-9x = 86 B. 4x-9 = 86 C. 86+9x-4 = 0

D. 9x-4 = 86 E. 9-4 = 86x

8. What is the equation of the line shown?



A. y = 7x - (1/3)
B. x = -3y +7
C. x = 7y -3
D. y = -3x +7
E. y = 3x -7

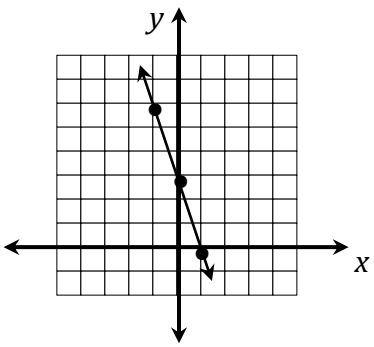
9. For the graph in #8, which is a good description of what is shown if the x=figure number and y= # of tiles?

A. Figure 7 has 0 tiles B. The pattern is growing by 3 tiles each time C. The number of tiles is increasing

D. Each new figure looses 3 tiles E. Figure 2 has 0 tiles

10. Write the equation for the following line that has already been graphed.

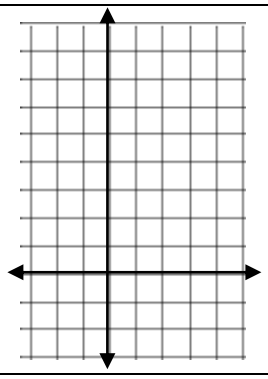
scaled by 1 for x and y



11. Graph y = 4x-2

scaled by 1 for x and y

graph at least 3 points before connecting with a line



12. For the equation in #11, what are the coordinates of the y-intercept?

13. For the equation in #11, what is the slope of the line?

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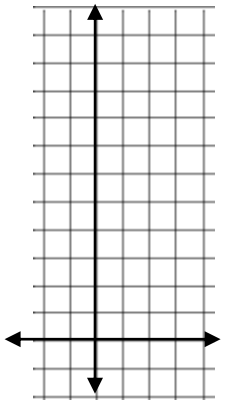
14. Graph a line using the following clues: Figure 0 has 1 tile and increases each time by 5.

scaled by 1 for x and y

graph at least 3 points before connecting with a line



15. Solve the following equation and clearly check your answer.

Solve	Check
$-(x+1) = -x-x+2$	

#16-17 Use the information below to complete the following multiple representations: Equation and Table

Pattern (Given)

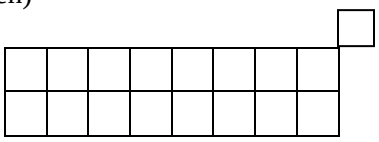
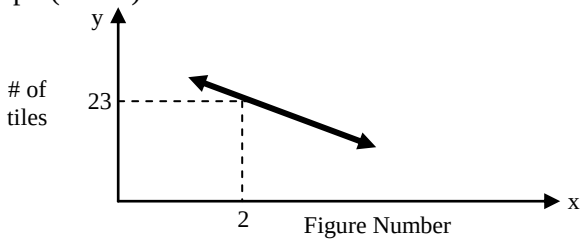


Figure 3

Graph (Given)

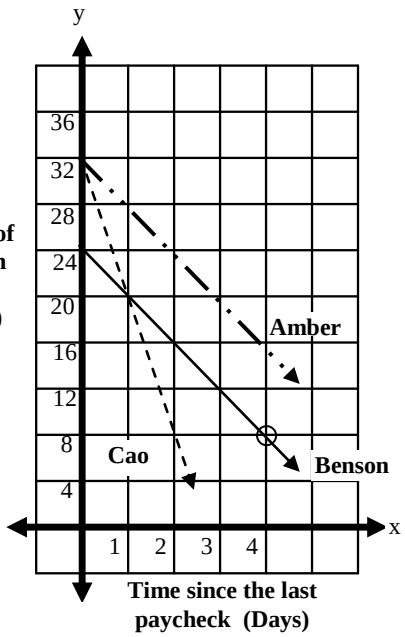


16. Equation

17. Table

x	0	1	2	3	4	5
y						

#18-20 Use the graph of the three lines, that represent the amount of money in three people's wallets versus number of days since their last paycheck to answer the following questions.



18. When the lines for Amber and Benson are compared, which statement below is true?

A. They both have the same amount of money the day they get their paycheck (day zero).
B. The slopes for both are positive
C. After 3 days, they both have the same amount of money
D. The amount of money is decreasing for both people, specifically, a $4 decrease each day
E. Benson starts with more money than Amber

19. How are the lines for Amber and Cao the same and how are they different?

A. Same: starting amount of $32
Different: Cao looses money faster than Amber
B. Same: Slope of -$1 per day
Different: They start with different amounts of $
C. Same: Money decreases at the same rate
Different: They have different amounts of $ on Day 2
D. Same: Both slopes are negative
Different: Cao earns more $ and Amber spends $

20. Write a detailed sentence with numbers and a complete description that explains what the circled point means in the graph.

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