



Name _____ Date _____

Algebra 1 Readiness: Winter Progress

Questions 1-3: Solve the equation.

1.

$$9x + 8 = 4x - 2$$

$x =$ _____

2.

$$3(2x - 4) = 2x + 8$$

$x =$ _____

3.

$$4(x + 1) = 2(3x - 2)$$

$x =$ _____



Please stop, put your pencil down and wait for the next directions.



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(continued)

Questions 4-6: Determine the number of solutions for the equation.

4.

$$3x + 4 = -3x + 4$$

- No Solutions One Solution Two Solutions Infinitely Many

5.

$$3x - 4 = 3x + 4$$

- No Solutions One Solution Two Solutions Infinitely Many

6.

$$3x + 4 = x + 3 + x + 1$$

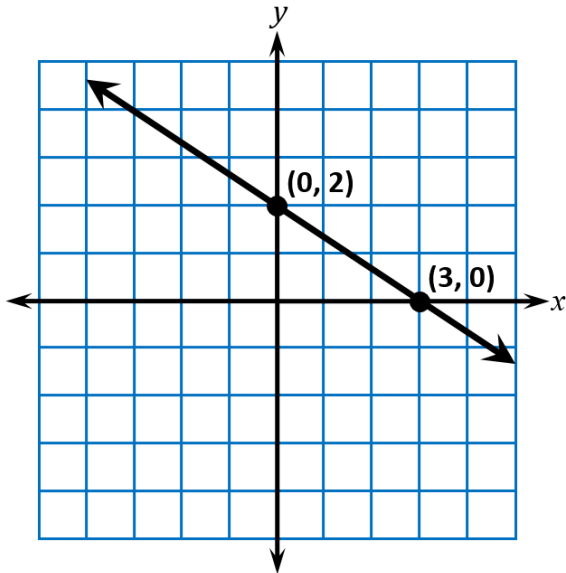
- No Solutions One Solution Two Solutions Infinitely Many



Please stop, put your pencil down and wait for the next directions.

Questions 7-9: Complete the equation of the line.

7. Find the equation of the line in the graph.



$$y = \square x + \square$$

8. Find the equation of the line in the table

x	y
-2	8
-1	6
0	4
1	2
2	0

$$y = \square x + \square$$



Please continue to question 9 on the next page.



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(continued)

9. Find the equation of the line through the two points.

(5, 7) and (8, 13)

$$y = \square x + \square$$



Please stop, put your pencil down and wait for the next directions.



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(continued)

Questions 10-12: Find the equivalent expression.

10.

$$4^3 \times 4^6$$

4^9

4^{18}

16^9

16^{18}

11.

$$\frac{5^8}{5^4}$$

1^4

5^4

5^{12}

5^{32}

12.

$$(3^4)^5$$

3^{-1}

3^1

3^9

3^{20}



Please stop, put your pencil down and wait for the next directions.



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(continued)

Questions 13-15: Solve the equation.

13.

$$x^2 = 64$$

-8

8

± 8

32

14.

$$x^3 = -27$$

-3

3

± 3

-9

15.

$$x^2 = \frac{4}{36}$$

$-\frac{2}{6}$

$\frac{2}{6}$

$\pm \frac{2}{6}$

$\pm \frac{2}{18}$



Please stop, put your pencil down and wait for the next directions.