



Name Answer Key Date _____

Algebra Concepts Screener - Winter

Questions 1-3: Add and subtract the integers.

1.

$$(-7) + 4$$

Answer: -3

2.

$$-9 - 4$$

Answer: -13

3.

$$5 - (-7)$$

Answer: 12



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



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(continued)

Questions 4-6: Multiply and divide the integers.

4.

$$-4 \times 7$$

Answer: -28

5.

$$-4(-6)$$

Answer: 24

6.

$$-56 \div 8$$

Answer: 7

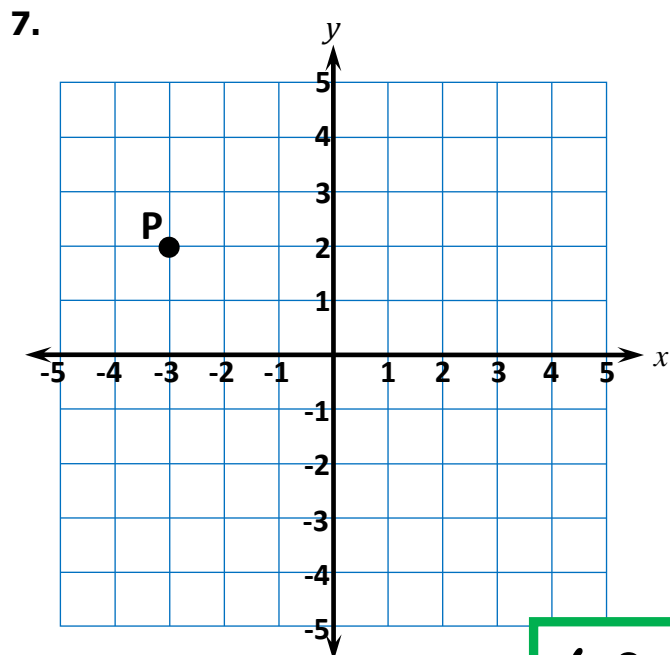


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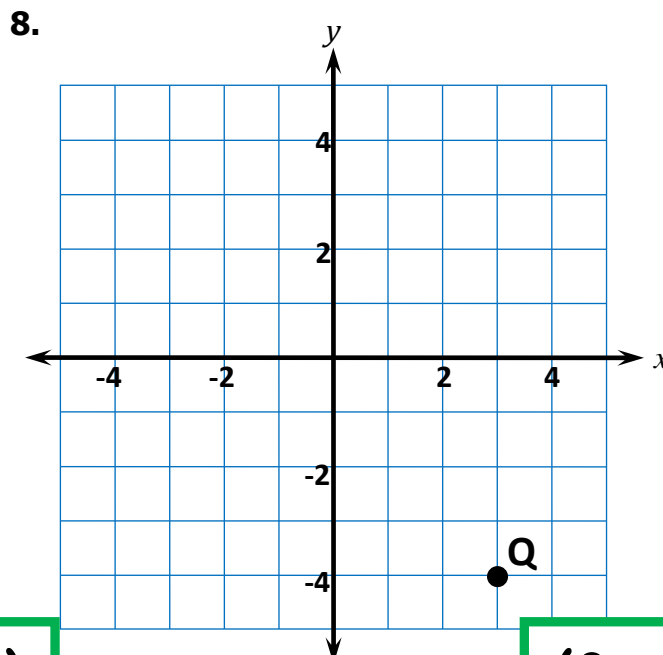
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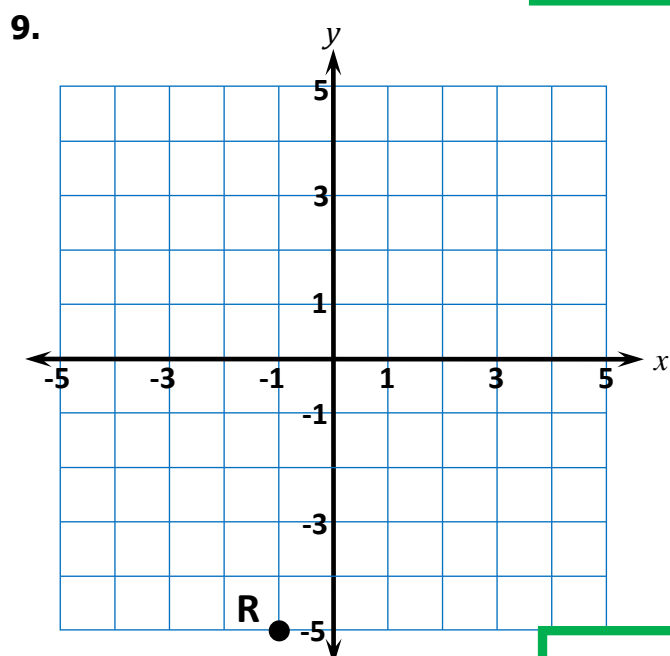
Questions 7-9: Write the ordered pair for the point.



P = **$(-3, 2)$**



Q = **$(3, -4)$**



R = **$(-1, -5)$**



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(continued)

Questions 10-12: Find the equivalent expression.

10.

The product of x and 6, decreased by 2

$6x - 2$

$6(x - 2)$

$2x - 6$

$x + 6 - 2$

11.

3 more than 5 times x

$3x + 5$

$5x + 3$

$5(x + 3)$

$3(5 + x)$

12.

4 times the quantity of x minus 6

$6x - 4$

$6(x - 4)$

$4x - 6$

$4(x - 6)$



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(continued)

Questions 13-15: Evaluate the expression for the given value of x .

13. Evaluate $5x + 2$ for $x = 3$.

Answer: 17

14. Evaluate $x^2 + 6$ for $x = 4$.

Answer: 22

15. Evaluate $13 - 2x$ for $x = 3$.

Answer: 7



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



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(continued)

Questions 16-18: Find the equivalent expression.

16.

$$x + x + x + x$$

$4x^4$

$x + 4$

x^4

$4x$

17.

$$4x + 3 + 2x$$

$6x + 3$

$9x$

$9x^2$

$4x + 5$

18.

$$3(x + 4)$$

$3x + 4$

$3x + 12$

$x^3 + 7$

$x + 12$



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(continued)

Questions 19-21: Solve the equation.

19.

$$x + 5 = 10$$

$$x = \underline{5}$$

20.

$$24 = 4x$$

$$x = \underline{6}$$

21.

$$\frac{1}{4}x = 8$$

$$x = \underline{32}$$



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



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(continued)

Questions 22-24: Find the equivalent expression.

22.

$$(2x + 3) + (x + 5)$$

$3x + 5$

$3x + 8$

$2x + 5$

$2x + 8$

23.

$$(6x + 9) - (4x + 6)$$

$10x + 15$

$2x + 15$

$10x + 3$

$2x + 3$

24.

$$(10x + 2) - (8x - 4)$$

$2x - 2$

$2x + 6$

$18x + 6$

$18x - 2$



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



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(continued)

Questions 25-27: Find the equivalent expression.

25.

$$4(x + 6)$$

$4x + 24$

$4x + 6$

$24x$

$x + 24$

26.

$$8(5x + 2)$$

$40x + 2$

$40x + 16$

$56x$

$5x + 16$

27.

$$3(4x + 6) + x$$

$13x + 6$

$12x + 18$

$31x$

$13x + 18$



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



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(continued)

Questions 28-30: Find the equivalent expression.

28.

$$5x + 30$$

$5(x + 6)$

$5(x + 30)$

$35x$

$5x + 6$

29.

$$12x - 4$$

$-4(3x + 1)$

$4(3x - 1)$

$8x$

$4(8x - 1)$

30.

$$6x + 15$$

$6(x + 9)$

$3(3x + 12)$

$21x$

$3(2x + 5)$



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(continued)

Questions 31-33: Solve the equation.

31.

$$14 = 2x - 6$$

$$x = \underline{10}$$

32.

$$3(x + 2) = 15$$

$$x = \underline{3}$$

33.

$$\frac{1}{4}x + 2 = 10$$

$$x = \underline{32}$$



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