

Quadratic Test Review 2018

Date _____ Period _____

Find the value of the discriminant of each quadratic equation.

1) $-9x^2 - 7x + 4 = -3$

2) $5x^2 + 8x + 3 = 9$

3) $b^2 + b + 20 = 10$

Use the discriminant to determine the number of real solutions to each equation.

4) $9x^2 + 7x - 9 = -3$

5) $-8a^2 - a + 1 = 8$

6) $5x^2 + 10x + 1 = -4$

Solve each equation with the quadratic formula. Round to the nearest Tenth!!!!

7) $2n^2 = 54 + 3n$

8) $2x^2 = -9x - 7$

9) $5p^2 - 135 = -2p$

10) $2x^2 = -x + 136$

Find the Axis of Symmetry and the Vertex.

11) $3x^2 = 27$

12) $2r^2 = 128$

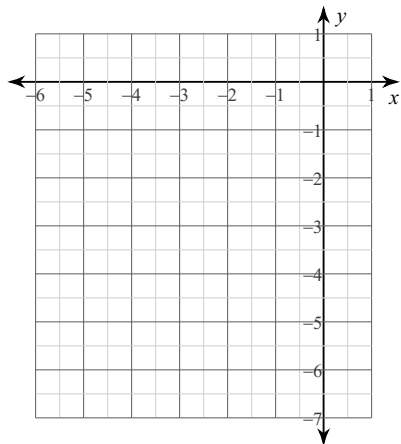
13) $2k^2 - k - 8 = -2$

14) $a^2 - a - 15 = -3$

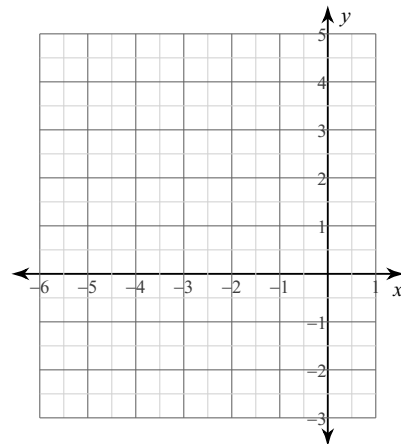
15) $n^2 - n - 9 = -3$

Sketch the graph of each function.

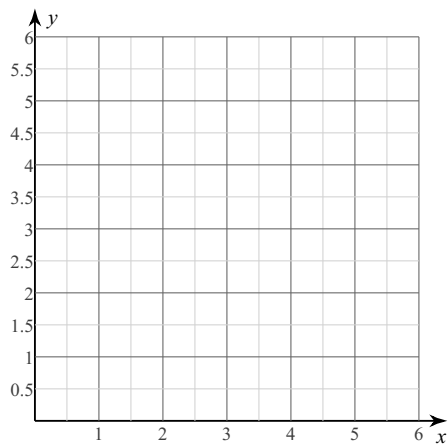
16) $y = -x^2 - 8x - 17$



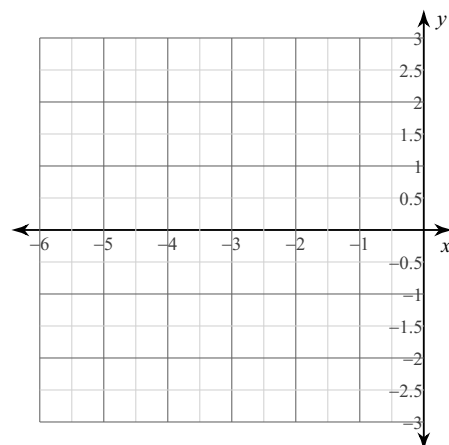
17) $y = x^2 + 8x + 15$



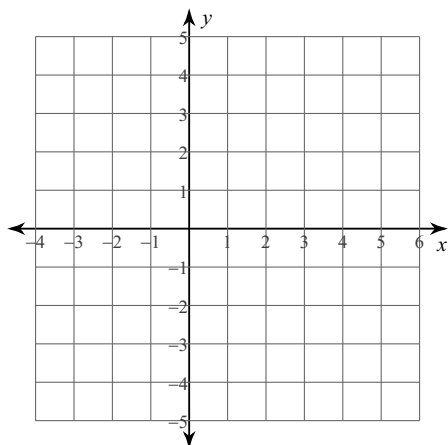
18) $y = \frac{1}{3}x^2 - 2x + 7$



19) $y = -x^2 - 6x - 7$



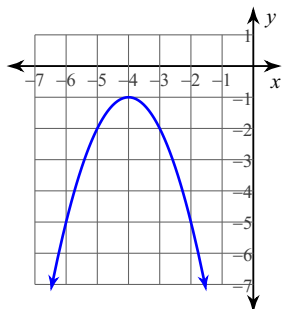
20) $y = -2x^2 + 4x + 2$



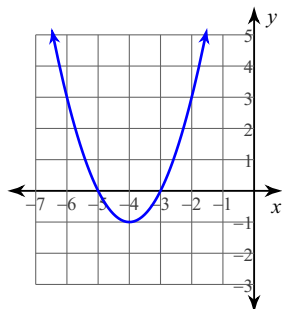
Answers to Quadratic Test Review 2018 (ID: 2)

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|------------------|----------------------|---------------------|-------------------|
| 1) 301 | 2) 184 | 3) -39 | 4) Two |
| 5) None | 6) One | 7) $\{6, -4.5\}$ | 8) $\{-1, -3.5\}$ |
| 9) $\{5, -5.4\}$ | 10) $\{8, -8.5\}$ | 11) 0 and -27 | 12) 0, -128 |
| 13) $1/2$ and -6 | 14) $1/2$ and -12.25 | 15) $1/2$ and -6.25 | |

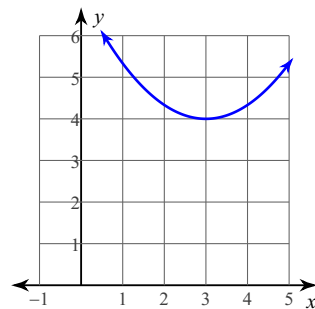
16)



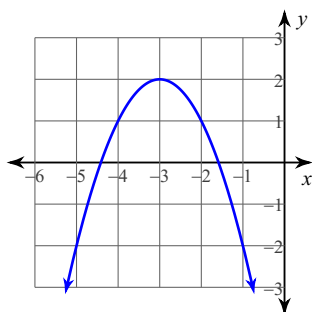
17)



18)



19)



20)

