

## Quadratic Test Review 2018

Date \_\_\_\_\_ Period \_\_\_\_\_

**Find the value of the discriminant of each quadratic equation.**

1)  $6a^2 - 5 = -8$

2)  $k^2 + 4k - 9 = -10$

3)  $k^2 - 7k - 1 = -4$

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

4)  $4x^2 - 3x - 1 = -3$

5)  $4b^2 - 4b - 1 = -9$

6)  $-5v^2 + 2v + 3 = -2$

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

7)  $6x^2 - x = 117$

8)  $4b^2 - 33 = -b$

9)  $n^2 - 4n = 60$

10)  $n^2 + 10n = 144$

**Find the Axis of Symmetry and the Vertex.**

11)  $2m^2 = -3m + 20$

12)  $m^2 - 1 = 0$

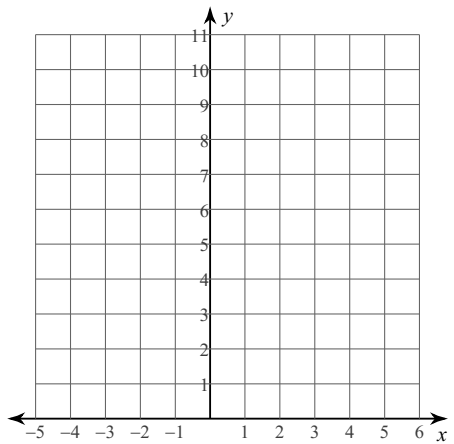
13)  $2v^2 + 5v - 22 = 3$

14)  $x^2 - 4x - 7 = -2$

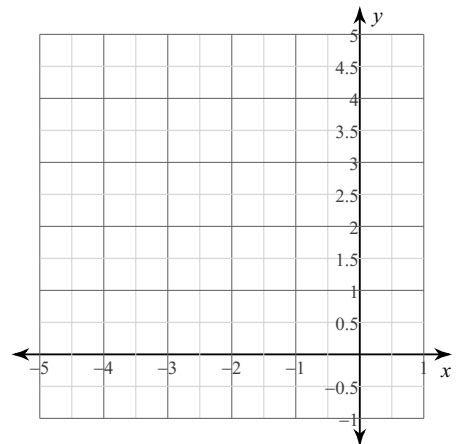
15)  $2r^2 + 4r - 13 = 3$

Sketch the graph of each function.

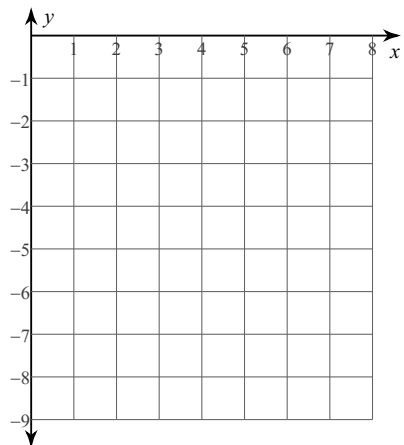
16)  $y = 2x^2 - 16x + 34$



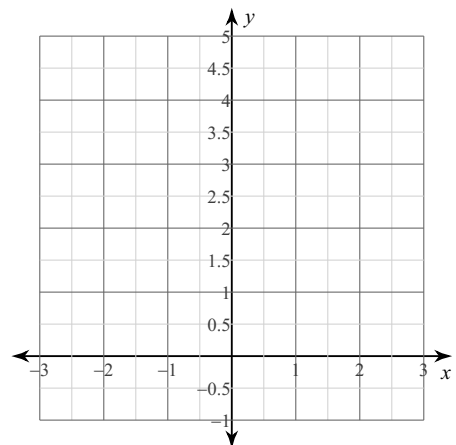
17)  $y = -x^2 - 6x - 5$



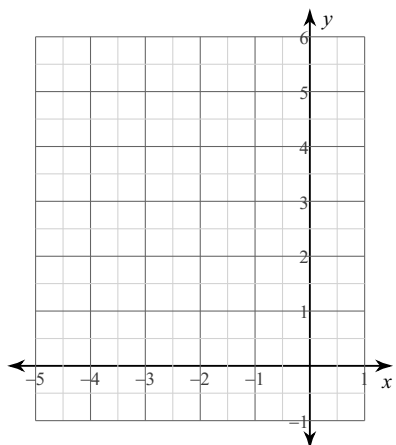
18)  $y = -x^2 + 4x - 8$



19)  $y = -x^2 + 2x + 3$



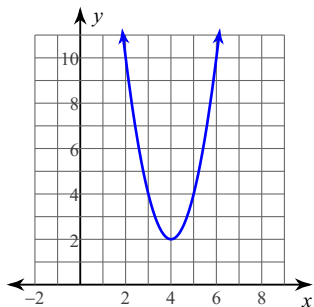
20)  $y = \frac{1}{2}x^2 + 2x + 4$



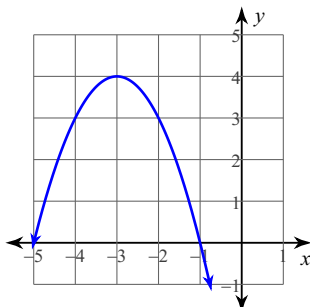
## Answers to Quadratic Test Review 2018 (ID: 3)

- |                                      |                  |                                      |                   |
|--------------------------------------|------------------|--------------------------------------|-------------------|
| 1) $-72$                             | 2) $12$          | 3) $37$                              | 4) None           |
| 5) None                              | 6) Two           | 7) $\{4.5, -4.333\}$                 | 8) $\{2.75, -3\}$ |
| 9) $\{10, -6\}$                      | 10) $\{8, -18\}$ | 11) $\left\{\frac{5}{2}, -4\right\}$ | 12) $\{1, -1\}$   |
| 13) $\left\{\frac{5}{2}, -5\right\}$ | 14) $\{5, -1\}$  | 15) $\{2, -4\}$                      |                   |

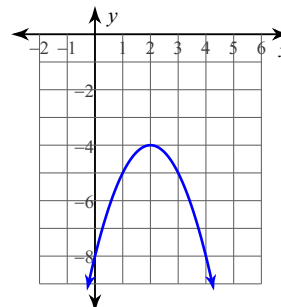
16)



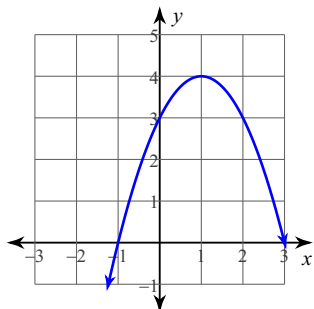
17)



18)



19)



20)

