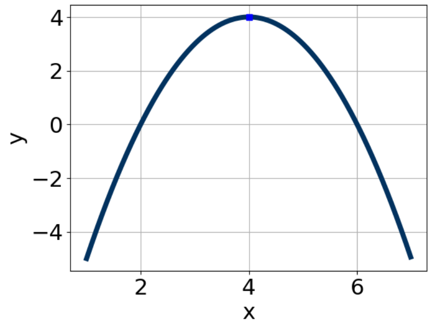
16. Write the equation of the graph presented below in the form $f(x) = ax^2 + bx + c$, assuming $a = 1$ or $a = -1$. Then, choose the intervals that $a, b,$ and c belong to.



$a =$ $\boxed{}$ $b =$ $\boxed{}$ $c =$ $\boxed{}$

A. $a \in [-1, 3], \quad b \in [-5, -3], \text{ and } \quad c \in [-10, -2]$

B. $a \in [0.1, 1.2], \quad b \in [1, 9], \text{ and } \quad c \in [13, 17]$

C. $a \in [-2.9, 0.7], \quad b \in [-5, -3], \text{ and } \quad c \in [-10, -2]$

D. $a \in [0.1, 1.2], \quad b \in [-5, -3], \text{ and } \quad c \in [13, 17]$

E. $a \in [0.1, 1.2], \quad b \in [1, 9], \text{ and } \quad c \in [-10, -2]$

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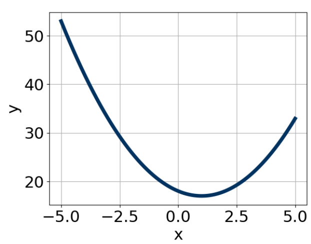
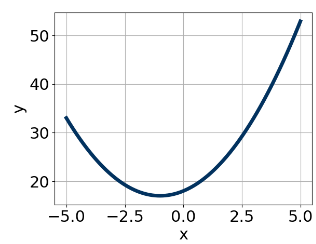
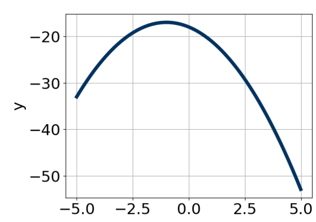
17. Graph the equation $f(x) = -(x + 4)^2 + 20$.



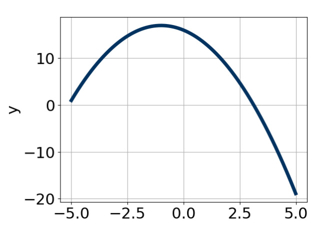
A.



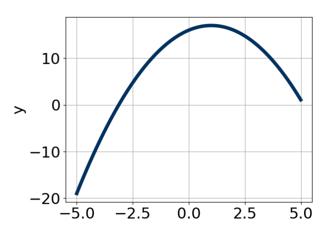
C.



D.



B.



E.

18. Factor the quadratic below. Then, choose the intervals that contain the constants in the form $(ax+b)(cx+d); b \leq d$.

$$64x^2 - 48x + 9$$

$a = \square$ $b = \square$ $c = \square$ $d = \square$

A. $a \in [3.5, 5], \quad b \in [-4, -2], \quad c \in [15, 16.5], \text{ and } \quad d \in [-3.5, -2]$

B. $a \in [7.5, 9], \quad b \in [-4, -2], \quad c \in [7.5, 9.5], \text{ and } \quad d \in [-3.5, -2]$

C. $a \in [0, 1.5], \quad b \in [-4, -2], \quad c \in [62.5, 64.5], \text{ and } \quad d \in [-3.5, -2]$

D. $a \in [15, 16.5], \quad b \in [-4, -2], \quad c \in [3, 4.5], \text{ and } \quad d \in [-3.5, -2]$

E. $a \in [0, 1.5], \quad b \in [2.5, 4], \quad c \in [62.5, 64.5], \text{ and } \quad d \in [2, 3.5]$

19. Solve the quadratic equation below. Then, choose the intervals that the solutions x_1 and x_2 belong to, with $z_1 \leq z_2$.

$$144x^2 - 36x - 10 = 0$$

$x_1 = \square$ $x_2 = \square$

A. $x_1 \in [-2.02, -1.95]$ and $x_2 \in [-0.14, 0.08]$

B. $x_1 \in [-0.04, -0]$ and $x_2 \in [4.96, 5.1]$

C. $x_1 \in [-0.13, -0.03]$ and $x_2 \in [1.21, 1.43]$

D. $x_1 \in [-0.55, -0.49]$ and $x_2 \in [0.1, 0.22]$

E. $x_1 \in [-0.24, -0.14]$ and $x_2 \in [0.41, 0.43]$

20. Solve the quadratic equation below. Then, choose the intervals that the solutions belong to, with $x_1 \leq x_2$ (if they exist).

$$-6x^2 - 8x + 2 = 0$$

$x_1 = \square$ $x_2 = \square$

A. $x_1 \in [-2.43, -1.3]$ and $x_2 \in [-0.05, 0.67]$

B. $x_1 \in [-10.27, -8.15]$ and $x_2 \in [0.8, 1.51]$

C. $x_1 \in [-1.24, 0.23]$ and $x_2 \in [1.51, 2.56]$

D. $x_1 \in [-1.52, -1.1]$ and $x_2 \in [7.95, 10.22]$

E. There are no Real solutions.