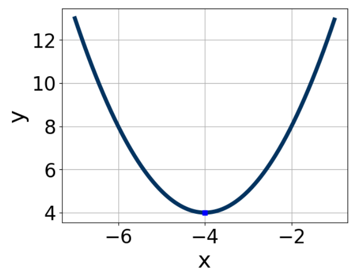
16. Write the equation of the graph presented below in the form $f(x) = ax^2 + bx + c$, assuming $a = 1$ or $a = -1$. Then, choose the intervals that $a, b,$ and c belong to.



A. $a \in [-0.6, 2.6], \quad b \in [-11, -7], \text{ and } \quad c \in [17, 22]$

B. $a \in [-0.6, 2.6], \quad b \in [-11, -7], \text{ and } \quad c \in [11, 16]$

C. $a \in [-3.1, 0.5], \quad b \in [-11, -7], \text{ and } \quad c \in [-17, -7]$

D. $a \in [-0.6, 2.6], \quad b \in [5, 11], \text{ and } \quad c \in [17, 22]$

E. $a \in [-3.1, 0.5], \quad b \in [5, 11], \text{ and } \quad c \in [-17, -7]$

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

$$24x^2 - 50x + 25$$

A. $a \in [7.01, 9.8], \quad b \in [-10, -4], \quad c \in [2.8, 3.8], \text{ and } \quad d \in [-10, -4]$

B. $a \in [1.03, 2.8], \quad b \in [-10, -4], \quad c \in [11.8, 13.3], \text{ and } \quad d \in [-10, -4]$

C. $a \in [2.04, 4.93], \quad b \in [-10, -4], \quad c \in [5.9, 6.5], \text{ and } \quad d \in [-10, -4]$

D. $a \in [-0.07, 1.88], \quad b \in [-33, -23], \quad c \in [-0.3, 1.9], \text{ and } \quad d \in [-22, -14]$

E. None of the above.

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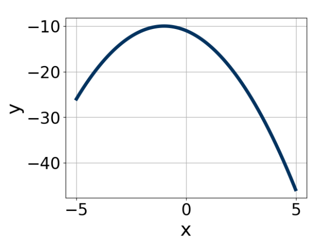
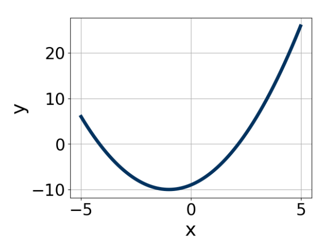
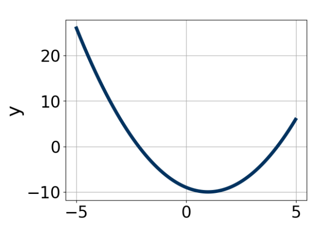
18. Graph the equation $f(x) = -(x + 1)^2 - 10$.



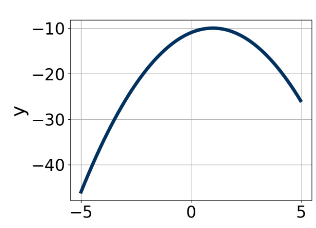
A.



C.



B.



D.

E. None of the above

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

$$15x^2 - 10x - 2 = 0$$

A. $x_1 \in [-14.55, -14.47]$ and $x_2 \in [15.1, 17]$

B. $x_1 \in [-0.38, 0.24]$ and $x_2 \in [0.3, 1.2]$

C. $x_1 \in [-2.62, -1.31]$ and $x_2 \in [12.2, 12.5]$

D. $x_1 \in [-1.35, -0.5]$ and $x_2 \in [-1.4, 0.5]$

E. There are no Real solutions.

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

$$10x^2 + 57x + 54 = 0$$

A. $x_1 \in [-4, -2.52]$ and $x_2 \in [-1.55, -1.46]$

B. $x_1 \in [-45.74, -43.64]$ and $x_2 \in [-12.32, -11.84]$

C. $x_1 \in [-14.95, -12.49]$ and $x_2 \in [-0.47, -0.21]$

D. $x_1 \in [-4.92, -4.23]$ and $x_2 \in [-1.39, -1.1]$

E. $x_1 \in [-9.37, -7.32]$ and $x_2 \in [-0.77, -0.51]$