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

$$54x^2 - 69x + 20$$

A. $a \in [16, 18.8], \quad b \in [-9, -3], \quad c \in [2.5, 5.5], \text{ and } \quad d \in [-6, 0]$

B. $a \in [4.6, 9.8], \quad b \in [-9, -3], \quad c \in [5.7, 9.6], \text{ and } \quad d \in [-6, 0]$

C. $a \in [2.1, 3.8], \quad b \in [-9, -3], \quad c \in [17.3, 19.7], \text{ and } \quad d \in [-6, 0]$

D. $a \in [-0.1, 1.2], \quad b \in [-49, -41], \quad c \in [0.9, 1.7], \text{ and } \quad d \in [-34, -16]$

E. None of the above.

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

$$18x^2 + 7x - 9 = 0$$

A. $x_1 \in [-27.85, -25.88]$ and $x_2 \in [26.1, 27.8]$

B. $x_1 \in [-0.59, 0.12]$ and $x_2 \in [0.6, 2.8]$

C. $x_1 \in [-1.31, -0.84]$ and $x_2 \in [-0.4, 0.7]$

D. $x_1 \in [-17.02, -16.04]$ and $x_2 \in [8, 9.8]$

E. There are no Real solutions.

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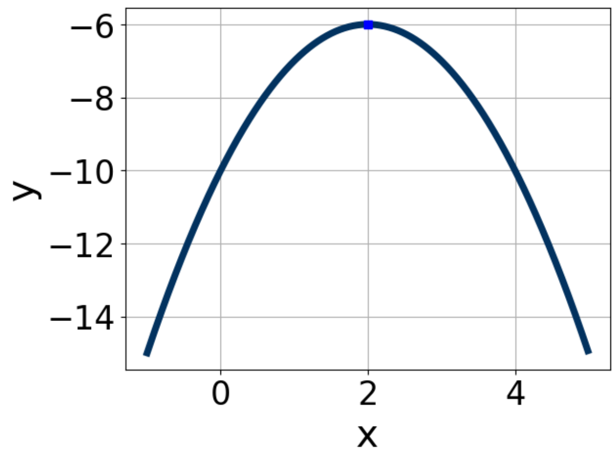
3. Write the equation of the graph presented below in the form $f(x) = ax^2 + bx + c$, assuming $a = 1$ or $a = -1$. Then, choose the intervals that $a, b,$ and c belong to.



A. $a \in [0.8, 2.2], \quad b \in [-9, -3], \text{ and } \quad c \in [-5, 0]$

B. $a \in [-1.9, -0.3], \quad b \in [-9, -3], \text{ and } \quad c \in [-1, 4]$

C. $a \in [-1.9, -0.3], \quad b \in [3, 6], \text{ and } \quad c \in [-12, -9]$

D. $a \in [0.8, 2.2], \quad b \in [3, 6], \text{ and } \quad c \in [-5, 0]$

E. $a \in [-1.9, -0.3], \quad b \in [-9, -3], \text{ and } \quad c \in [-12, -9]$

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

$$25x^2 + 25x - 36 = 0$$

A. $x_1 \in [-4.55, -3.03]$ and $x_2 \in [0.37, 0.75]$

B. $x_1 \in [-1.85, -1.03]$ and $x_2 \in [0.59, 0.96]$

C. $x_1 \in [-9.27, -8.88]$ and $x_2 \in [0.03, 0.18]$

D. $x_1 \in [-0.78, 0.15]$ and $x_2 \in [2.31, 2.41]$

E. $x_1 \in [-45.59, -44.8]$ and $x_2 \in [19.77, 20.28]$

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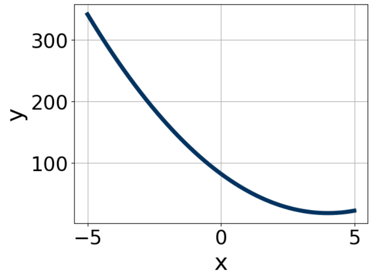
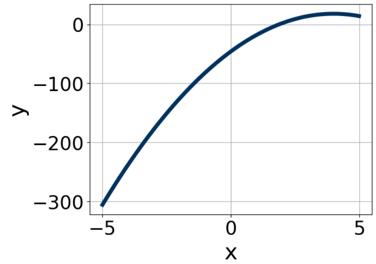
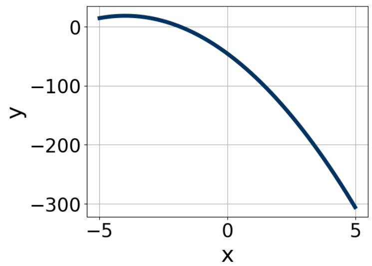
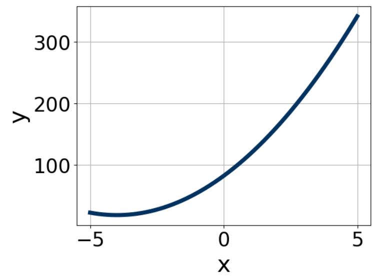
5. Graph the equation below.

$$f(x) = (x - 4)^2 + 18$$

A. 

C. 

B. 

D. 

E. None of the above.