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

$$25x^2 + 60x + 36 = 0$$

A. $x_1 \in [-4.5, -2.48]$ and $x_2 \in [-0.52, -0.28]$

B. $x_1 \in [-1.51, -0.92]$ and $x_2 \in [-1.29, -1.11]$

C. $x_1 \in [-30.82, -29.54]$ and $x_2 \in [-30.12, -29.96]$

D. $x_1 \in [-2.57, -2.22]$ and $x_2 \in [-0.62, -0.54]$

E. $x_1 \in [-6.23, -5.1]$ and $x_2 \in [-0.25, -0.23]$

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

$$25x^2 - 60x + 36 = 0$$

A. $x_1 \in [0.16, 0.39]$ and $x_2 \in [5.7, 6.06]$

B. $x_1 \in [0.37, 0.42]$ and $x_2 \in [2.83, 3.98]$

C. $x_1 \in [29.98, 30.17]$ and $x_2 \in [29.54, 30.08]$

D. $x_1 \in [0.46, 0.71]$ and $x_2 \in [2.32, 2.91]$

E. $x_1 \in [1.15, 1.21]$ and $x_2 \in [1.09, 1.42]$

---

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

$$24x^2 + 38x + 15$$

A. $a \in [-0.05, 1.94]$, $b \in [17, 21]$, $c \in [-0.32, 1.14]$, and $d \in [20, 22]$

B. $a \in [1.24, 3.56]$, $b \in [-1, 7]$, $c \in [11.09, 13.53]$, and $d \in [3, 9]$

C. $a \in [11.37, 12.92]$, $b \in [-1, 7]$, $c \in [1.12, 2.39]$, and $d \in [3, 9]$

D. $a \in [3.73, 4.76]$, $b \in [-1, 7]$, $c \in [4.91, 6.12]$, and $d \in [3, 9]$

E. None of the above.

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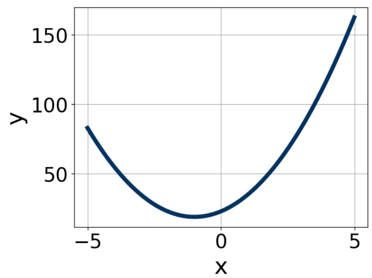
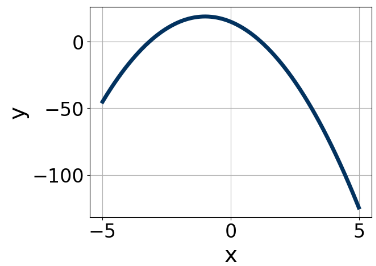
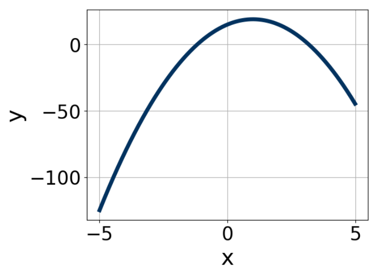
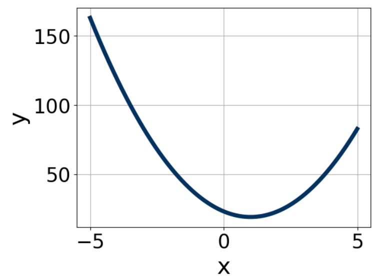
4. Graph the equation below.

$$f(x) = (x-1)^2 + 19$$

A. 

C. 

B. 

D. 

E. None of the above.

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

$$-15x^2 - 8x + 6 = 0$$

A. $x_1 \in [-21.98, -20.74]$ and $x_2 \in [19.6, 21.2]$

B. $x_1 \in [-6.53, -6.22]$ and $x_2 \in [13, 15.5]$

C. $x_1 \in [-0.78, 0.53]$ and $x_2 \in [0.8, 2]$

D. $x_1 \in [-1.13, -0.47]$ and $x_2 \in [-0.3, 0.5]$

E. There are no Real solutions.

---

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

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

A. $x_1 \in [-3.49, -2.91]$ and $x_2 \in [9.72, 10.59]$

B. $x_1 \in [-1, -0.57]$ and $x_2 \in [-0.83, 0.47]$

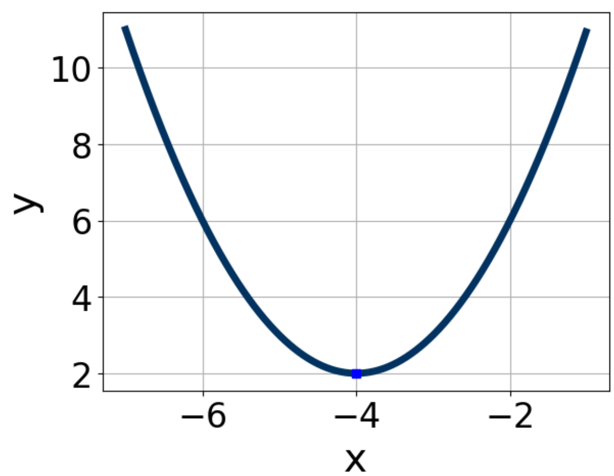
C. $x_1 \in [-14.87, -13.4]$ and $x_2 \in [13.23, 14.13]$

D. $x_1 \in [-0.33, 0.04]$ and $x_2 \in [0.48, 0.99]$

E. There are no Real solutions.

---

7. 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. $a \in [0.6, 2], \quad b \in [8, 10], \text{ and } \quad c \in [17.4, 19.1]$

B. $a \in [0.6, 2], \quad b \in [-9, -1], \text{ and } \quad c \in [17.4, 19.1]$

C. $a \in [-1.4, 0.4], \quad b \in [8, 10], \text{ and } \quad c \in [-14.7, -13.5]$

D. $a \in [0.6, 2], \quad b \in [-9, -1], \text{ and } \quad c \in [13.7, 16]$

E. $a \in [-1.4, 0.4], \quad b \in [-9, -1], \text{ and } \quad c \in [-14.7, -13.5]$

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

$$36x^2 + 60x + 25$$

A. $a \in [1.3, 4.1], \quad b \in [2, 13], \quad c \in [17.8, 19.4], \text{ and } \quad d \in [3, 11]$

B. $a \in [3.4, 6.6], \quad b \in [2, 13], \quad c \in [4.4, 9.1], \text{ and } \quad d \in [3, 11]$

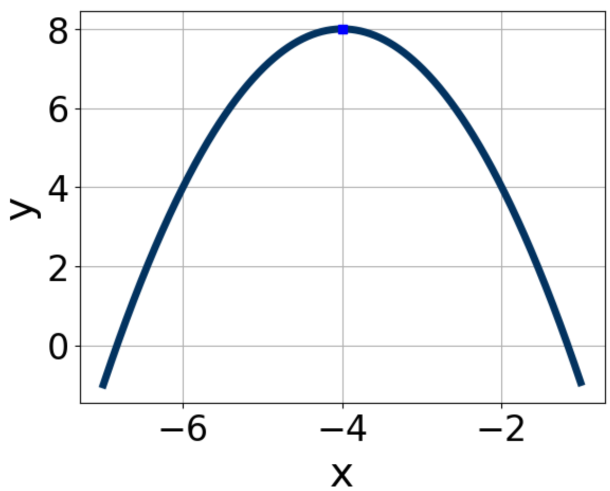
C. $a \in [10.5, 12.4], \quad b \in [2, 13], \quad c \in [2, 5.6], \text{ and } \quad d \in [3, 11]$

D. $a \in [-2, 1.3], \quad b \in [26, 33], \quad c \in [-1.6, 2.5], \text{ and } \quad d \in [30, 34]$

E. None of the above.

---

9. 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. $a \in [0, 2], \quad b \in [5, 12], \text{ and } \quad c \in [22, 25]$

B. $a \in [-3, 0], \quad b \in [-10, -4], \text{ and } \quad c \in [-10, -5]$

C. $a \in [0, 2], \quad b \in [-10, -4], \text{ and } \quad c \in [22, 25]$

D. $a \in [-3, 0], \quad b \in [5, 12], \text{ and } \quad c \in [-24, -23]$

E. $a \in [-3, 0], \quad b \in [5, 12], \text{ and } \quad c \in [-10, -5]$

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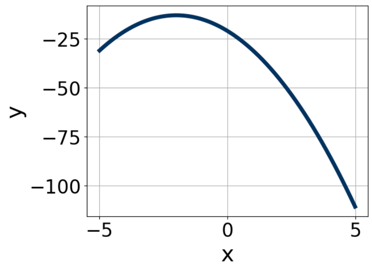
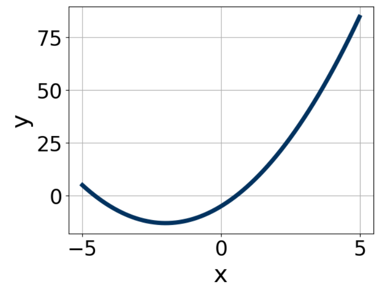
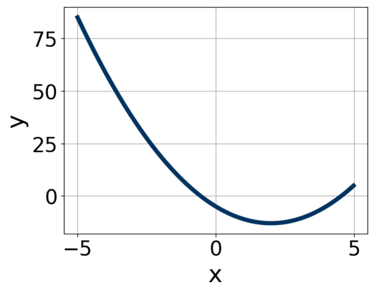
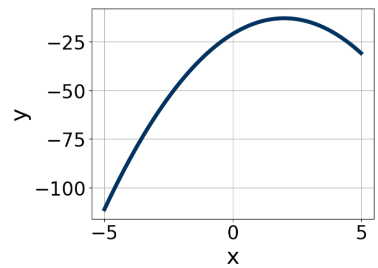
10. Graph the equation below.

$$f(x) = -(x-2)^2 - 13$$

A. 

C. 

B. 

D. 

E. None of the above.