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

$$17x^2 + 14x - 5 = 0$$

A. $x_1 \in [-23.76, -23.39]$ and $x_2 \in [22.5, 23.25]$

B. $x_1 \in [-0.49, 0.53]$ and $x_2 \in [0.62, 1.57]$

C. $x_1 \in [-1.49, -0.4]$ and $x_2 \in [-0.4, 1]$

D. $x_1 \in [-18.75, -18.33]$ and $x_2 \in [4.31, 4.69]$

E. There are no Real solutions.

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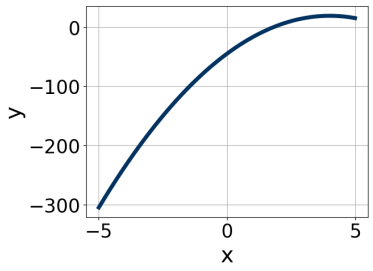
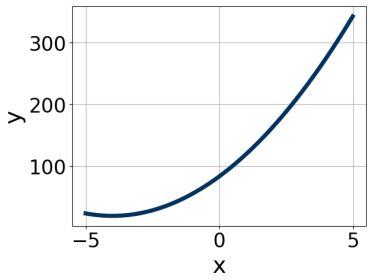
2. Graph the equation below.

$$f(x) = -(x-4)^2 + 19$$

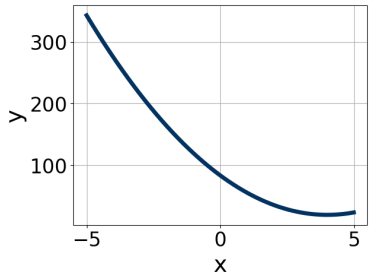
A.



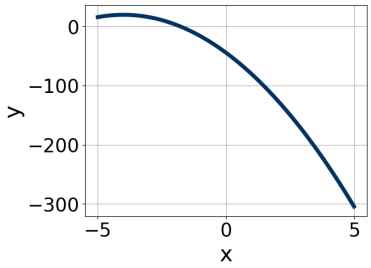
C.



B.



D.



E. None of the above.

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

$$24x^2 - 2x - 15$$

A. $a \in [11.7, 12.3]$, $b \in [-7, 0]$, $c \in [1.5, 3.9]$, and $d \in [3, 6]$

B. $a \in [4.8, 7.7]$, $b \in [-7, 0]$, $c \in [2.8, 5.1]$, and $d \in [3, 6]$

C. $a \in [2, 3.3]$, $b \in [-7, 0]$, $c \in [5.8, 8.8]$, and $d \in [3, 6]$

D. $a \in [-0.2, 2.2]$, $b \in [-20, -18]$, $c \in [-0.9, 1.7]$, and $d \in [15, 21]$

E. None of the above.

---

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

$$36x^2 + 11x - 12$$

A. $a \in [-0.2, 1.7]$, $b \in [-21, -15]$, $c \in [-1.4, 2.8]$, and $d \in [26, 38]$

B. $a \in [1.5, 7.3]$, $b \in [-6, 0]$, $c \in [4.6, 10.4]$, and $d \in [2, 5]$

C. $a \in [8.4, 9.5]$, $b \in [-6, 0]$, $c \in [3.7, 4.3]$, and $d \in [2, 5]$

D. $a \in [26.9, 27.8]$, $b \in [-6, 0]$, $c \in [-1.4, 2.8]$, and $d \in [2, 5]$

E. None of the above.

---

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

$$-14x^2 + 14x + 2 = 0$$

A. $x_1 \in [-2.2, -0.5]$ and $x_2 \in [-0.77, 0.44]$

B. $x_1 \in [-1.1, 0.5]$ and $x_2 \in [0.48, 1.55]$

C. $x_1 \in [-18.8, -16.5]$ and $x_2 \in [17.6, 19.49]$

D. $x_1 \in [-16.1, -15.2]$ and $x_2 \in [1.75, 1.89]$

E. There are no Real solutions.

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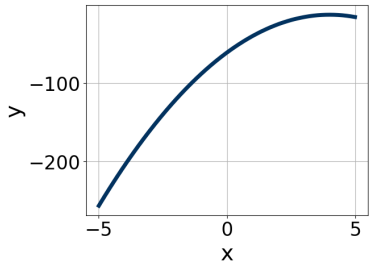
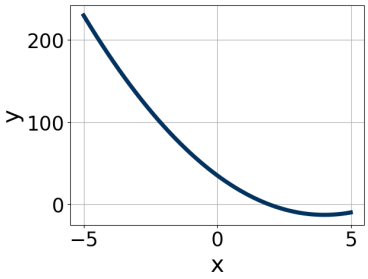
6. Graph the equation below.

$$f(x) = -(x+4)^2 - 13$$

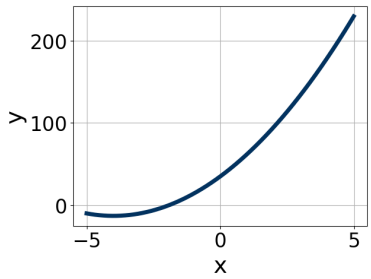
A.



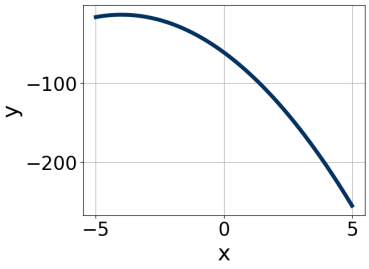
C.



B.



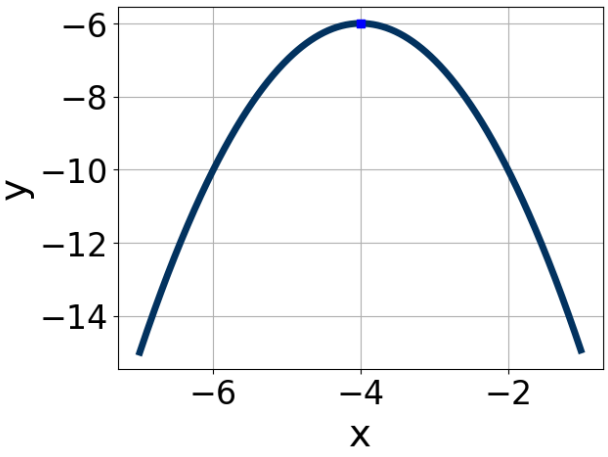
D.



E. None of the above.

---

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. $a \in [-1.8, -0.7]$, $b \in [8, 10]$, and $c \in [-23, -21]$

B. $a \in [-0.5, 1.4]$, $b \in [8, 10]$, and $c \in [9, 11]$

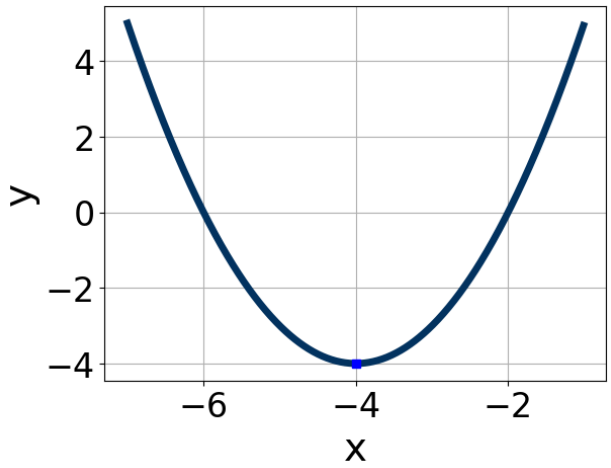
C. $a \in [-1.8, -0.7]$, $b \in [-10, -6]$, and $c \in [-23, -21]$

D. $a \in [-1.8, -0.7]$, $b \in [8, 10]$, and $c \in [-13, -8]$

E. $a \in [-0.5, 1.4]$, $b \in [-10, -6]$, and $c \in [9, 11]$

---

8. 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. $a \in [1, 4]$, $b \in [-9, -6]$, and $c \in [12, 15]$

B. $a \in [-3, 0]$, $b \in [7, 11]$, and $c \in [-20, -18]$

C. $a \in [1, 4]$, $b \in [-9, -6]$, and $c \in [18, 24]$

D. $a \in [1, 4]$, $b \in [7, 11]$, and $c \in [12, 15]$

E. $a \in [-3, 0]$, $b \in [-9, -6]$, and $c \in [-20, -18]$

---

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

$$25x^2 - 10x - 24 = 0$$

A. $x_1 \in [-1.37, -0.78]$ and $x_2 \in [1.2, 1.35]$

B. $x_1 \in [-4.46, -3.3]$ and $x_2 \in [0.1, 0.33]$

C. $x_1 \in [-20.65, -19.34]$ and $x_2 \in [29.82, 30.15]$

D. $x_1 \in [-1.95, -1.48]$ and $x_2 \in [0.52, 0.63]$

E. $x_1 \in [-0.53, -0.22]$ and $x_2 \in [2.3, 2.45]$

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

$$6x^2 - 35x + 36 = 0$$

A. $x_1 \in [0.39, 0.49]$ and $x_2 \in [12.89, 13.77]$

B. $x_1 \in [7.79, 8.16]$ and $x_2 \in [26.95, 27.69]$

C. $x_1 \in [2.08, 2.71]$ and $x_2 \in [1.93, 3.23]$

D. $x_1 \in [1.2, 1.47]$ and $x_2 \in [4.04, 4.79]$

E. $x_1 \in [1.48, 1.61]$ and $x_2 \in [3.79, 4.38]$
