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. $x_1 \in [-1.49, 0.83]$ and $x_2 \in [-1.2, -1.17]$

B. $x_1 \in [-3.86, -3.58]$ and $x_2 \in [-0.5, -0.38]$

C. $x_1 \in [-2.65, -1.6]$ and $x_2 \in [-0.64, -0.53]$

D. $x_1 \in [-30.32, -29.07]$ and $x_2 \in [-30.19, -29.79]$

E. $x_1 \in [-7.7, -5.9]$ and $x_2 \in [-0.32, -0.16]$

---

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

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

A. $x_1 \in [-14.98, -13.29]$ and $x_2 \in [-0.47, -0.42]$

B. $x_1 \in [-2.74, -1.79]$ and $x_2 \in [-2.48, -2.19]$

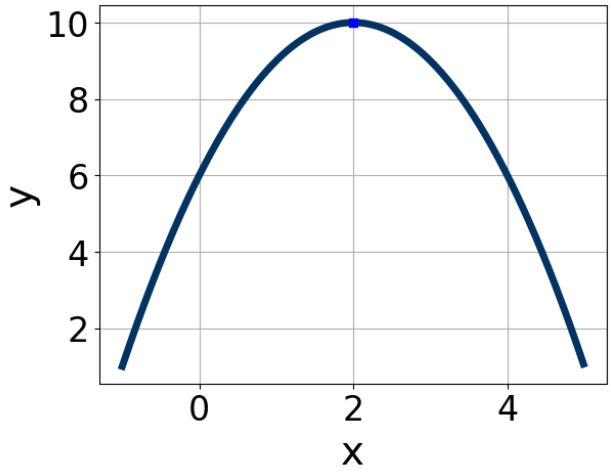
C. $x_1 \in [-27.34, -26.41]$ and $x_2 \in [-8.28, -7.48]$

D. $x_1 \in [-9.19, -8.7]$ and $x_2 \in [-0.99, -0.57]$

E. $x_1 \in [-6.53, -4.35]$ and $x_2 \in [-2.24, -1.1]$

---

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. $a \in [1, 3]$, $b \in [-6, -1]$, and $c \in [13, 15]$

B. $a \in [-1, 0]$, $b \in [-6, -1]$, and $c \in [6, 10]$

C. $a \in [1, 3]$, $b \in [2, 6]$, and $c \in [13, 15]$

D. $a \in [-1, 0]$, $b \in [-6, -1]$, and $c \in [-14, -11]$

E. $a \in [-1, 0]$, $b \in [2, 6]$, and $c \in [6, 10]$

---

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

$$-12x^2 + 10x + 4 = 0$$

A. $x_1 \in [-0.5, 1.8]$ and $x_2 \in [0.5, 1.2]$

B. $x_1 \in [-16.8, -16.1]$ and $x_2 \in [16.8, 18.1]$

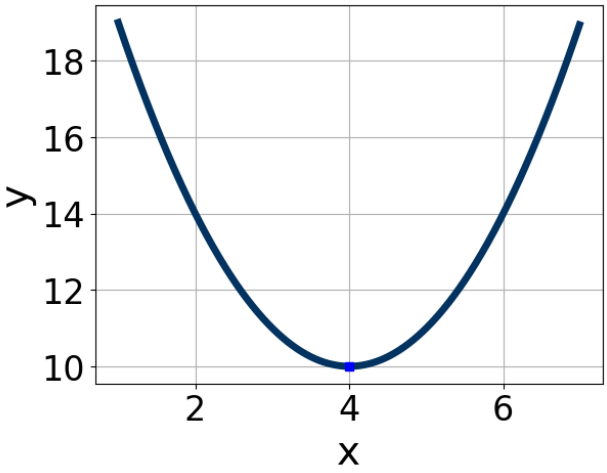
C. $x_1 \in [-15.3, -12.2]$ and $x_2 \in [2.3, 4.2]$

D. $x_1 \in [-2.7, -1]$ and $x_2 \in [-1.4, 0.7]$

E. There are no Real solutions.

---

5. 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. $a \in [-3, 0]$, $b \in [-9, -7]$, and $c \in [-6, -3]$

B. $a \in [1, 4]$, $b \in [7, 10]$, and $c \in [26, 27]$

C. $a \in [1, 4]$, $b \in [-9, -7]$, and $c \in [26, 27]$

D. $a \in [-3, 0]$, $b \in [7, 10]$, and $c \in [-6, -3]$

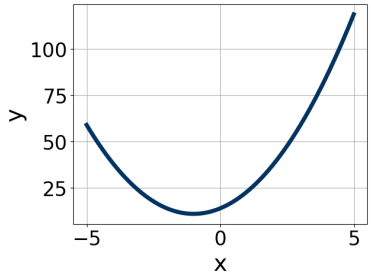
E. $a \in [1, 4]$, $b \in [7, 10]$, and $c \in [6, 11]$

---

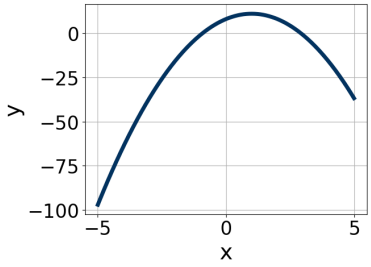
6. Graph the equation below.

$$f(x) = (x - 1)^2 + 11$$

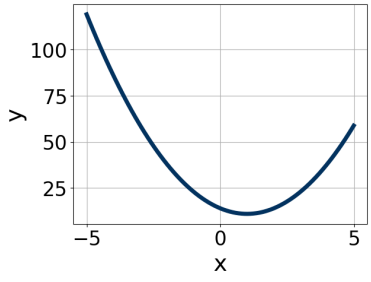
A.



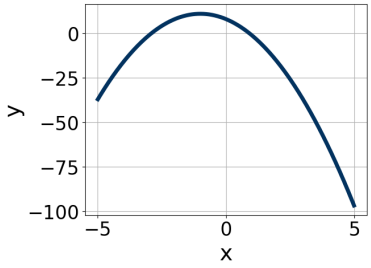
C.



B.



D.



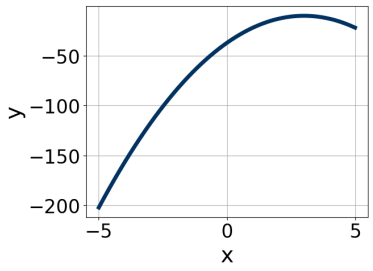
E. None of the above.

---

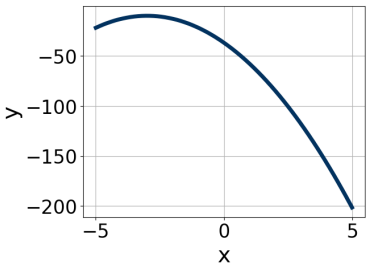
7. Graph the equation below.

$$f(x) = (x+3)^2 - 10$$

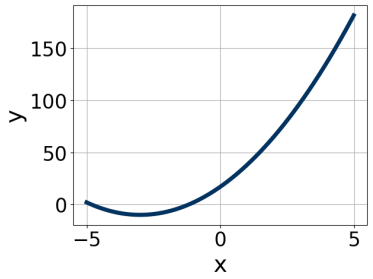
A.



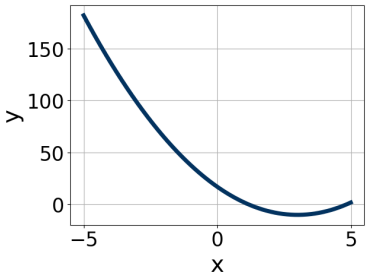
C.



B.



D.



E. None of the above.

---

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. $a \in [-0.79, 1.47]$, $b \in [-30, -29]$, $c \in [0.13, 1.96]$, and $d \in [-32, -25]$

B. $a \in [3.63, 6.77]$, $b \in [-5, -4]$, $c \in [5.76, 6.62]$, and $d \in [-6, -2]$

C. $a \in [17.36, 19.3]$, $b \in [-5, -4]$, $c \in [1.52, 2.17]$, and $d \in [-6, -2]$

D. $a \in [1.58, 2.58]$, $b \in [-5, -4]$, $c \in [17.65, 18.57]$, and $d \in [-6, -2]$

E. None of the above.

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

$$16x^2 + 12x - 9 = 0$$

A. $x_1 \in [-28.33, -26.99]$ and $x_2 \in [26.1, 26.55]$

B. $x_1 \in [-1.59, -0.66]$ and $x_2 \in [0.29, 0.57]$

C. $x_1 \in [-1.19, -0.15]$ and $x_2 \in [1.16, 1.71]$

D. $x_1 \in [-19.68, -19.03]$ and $x_2 \in [7.32, 7.75]$

E. There are no Real solutions.

10. 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. $a \in [11.14, 12.55]$, $b \in [2, 11]$, $c \in [1.45, 2.18]$, and $d \in [4, 9]$

B. $a \in [0.07, 1.03]$, $b \in [11, 29]$, $c \in [-0.41, 1.89]$, and $d \in [26, 34]$

C. $a \in [3.62, 4.44]$, $b \in [2, 11]$, $c \in [4.35, 6.84]$, and $d \in [4, 9]$

D. $a \in [1.1, 2.47]$, $b \in [2, 11]$, $c \in [11.34, 13.61]$, and $d \in [4, 9]$

E. None of the above.