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

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

A. $x_1 \in [-20.27, -19.52]$ and $x_2 \in [29.91, 30.19]$

B. $x_1 \in [-5.53, -3.98]$ and $x_2 \in [-0.92, 0.5]$

C. $x_1 \in [-0.6, 0.14]$ and $x_2 \in [2.06, 5.14]$

D. $x_1 \in [-1.86, -0.84]$ and $x_2 \in [0.4, 0.81]$

E. $x_1 \in [-1.19, -0.56]$ and $x_2 \in [0.95, 2.17]$

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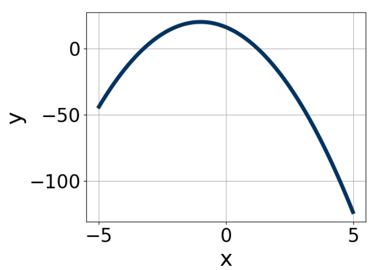
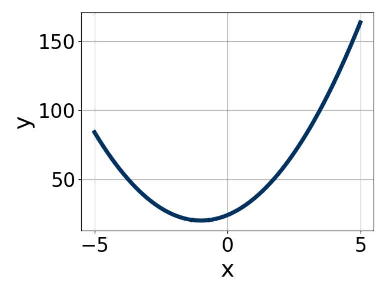
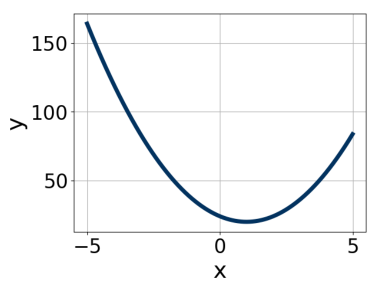
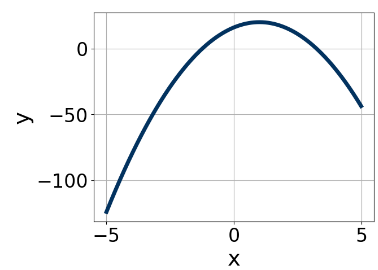
2. Graph the equation below.

$$f(x) = -(x-1)^2 + 20$$

A. 

C. 

B. 

D. 

E. None of the above.

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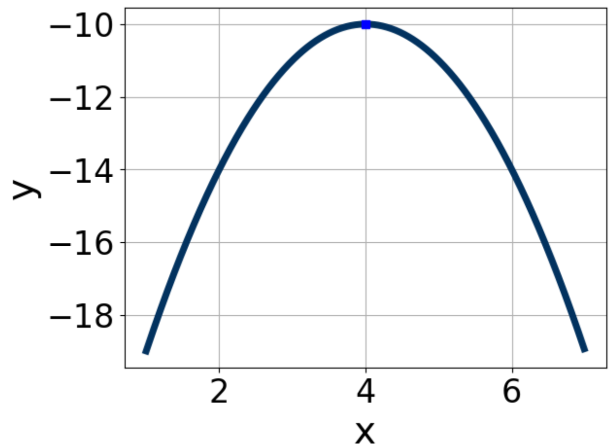
3. Write the equation of the graph presented below in the form $f(x) = ax^2 + bx + c$, assuming $a = 1$ or $a = -1$. Then, choose the intervals that $a, b,$ and c belong to.



A. $a \in [-0.6, 2.2], \quad b \in [-11, -7], \text{ and } \quad c \in [4, 7]$

B. $a \in [-1.9, 0], \quad b \in [6, 10], \text{ and } \quad c \in [-28, -24]$

C. $a \in [-1.9, 0], \quad b \in [-11, -7], \text{ and } \quad c \in [-9, -5]$

D. $a \in [-0.6, 2.2], \quad b \in [6, 10], \text{ and } \quad c \in [4, 7]$

E. $a \in [-1.9, 0], \quad b \in [-11, -7], \text{ and } \quad c \in [-28, -24]$

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

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

A. $a \in [17.47, 19.06], \quad b \in [-8, -3], \quad c \in [1.93, 2.17], \text{ and } \quad d \in [-8, -3]$

B. $a \in [5.09, 6.3], \quad b \in [-8, -3], \quad c \in [5.84, 6.88], \text{ and } \quad d \in [-8, -3]$

C. $a \in [0.78, 1.79], \quad b \in [-32, -26], \quad c \in [-0.33, 1.49], \text{ and } \quad d \in [-35, -27]$

D. $a \in [1.45, 2.63], \quad b \in [-8, -3], \quad c \in [17.77, 18.12], \text{ and } \quad d \in [-8, -3]$

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).

$$16x^2 - 15x - 7 = 0$$

A. $x_1 \in [-27.2, -25.1]$ and $x_2 \in [26, 28]$

B. $x_1 \in [-2.5, -0.9]$ and $x_2 \in [-0.2, 0.5]$

C. $x_1 \in [-5.8, -3.7]$ and $x_2 \in [18.9, 21.6]$

D. $x_1 \in [-0.4, 0]$ and $x_2 \in [0.6, 2.2]$

E. There are no Real solutions.