16. 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. $a \in [2.8, 5.7], \quad b \in [-7, -4], \quad c \in [11.1, 12.5],$ and $\quad d \in [-9, -2]$

B. $a \in [3.7, 6.8], \quad b \in [-7, -4], \quad c \in [5.2, 8],$ and $\quad d \in [-9, -2]$

C. $a \in [-0.7, 1.7], \quad b \in [-31, -24], \quad c \in [-0.3, 1.3],$ and $\quad d \in [-32, -28]$

D. $a \in [9.2, 12.6], \quad b \in [-7, -4], \quad c \in [1.6, 3.2],$ and $\quad d \in [-9, -2]$

E. None of the above.

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

$$15x^2 + 8x - 16 = 0$$

A. $x_1 \in [-2.92, -2.47]$ and $x_2 \in [0.27, 0.71]$

B. $x_1 \in [-0.9, 0.12]$ and $x_2 \in [1.24, 1.61]$

C. $x_1 \in [-1.36, -1.25]$ and $x_2 \in [0.71, 0.92]$

D. $x_1 \in [-20.4, -19.82]$ and $x_2 \in [11.86, 12.4]$

E. $x_1 \in [-4.34, -3.83]$ and $x_2 \in [-0.01, 0.32]$

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18. Solve the quadratic equation below. Then, choose the intervals that the solutions belong to, with $x_1 \leq x_2$ (if they exist).
$$14x^2 - 9x - 2 = 0$$

A. $x_1 \in [-0.45, 0.16]$ and $x_2 \in [0.49, 0.84]$

B. $x_1 \in [-13.58, -13.57]$ and $x_2 \in [13.88, 14.38]$

C. $x_1 \in [-1.07, -0.63]$ and $x_2 \in [-0.03, 0.49]$

D. $x_1 \in [-2.5, -2.29]$ and $x_2 \in [11.37, 11.55]$

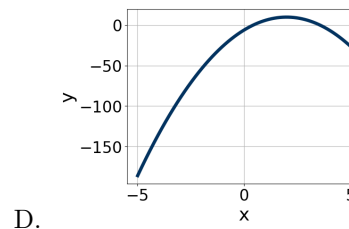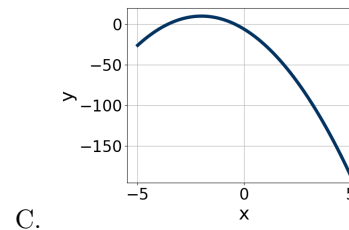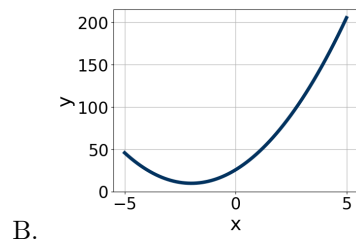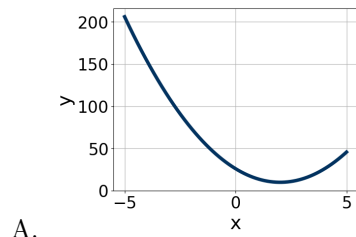E. There are no Real solutions.

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19. 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.
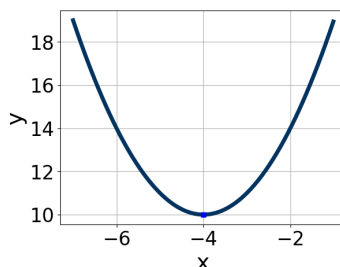
A. $a \in [-0.3, 1.5], \quad b \in [-10, -7],$ and $\quad c \in [4, 10]$

B. $a \in [-0.3, 1.5]$, $b \in [6, 9]$, and $c \in [24, 27]$

C. $a \in [-1.3, 0]$, $b \in [6, 9]$, and $c \in [-7, -5]$

D. $a \in [-0.3, 1.5]$, $b \in [-10, -7]$, and $c \in [24, 27]$

E. $a \in [-1.3, 0]$, $b \in [-10, -7]$, and $c \in [-7, -5]$

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20. Graph the equation $f(x) = 4(x + 2)^2 + 10$.

A.

C.

B.

D.

E. None of the above