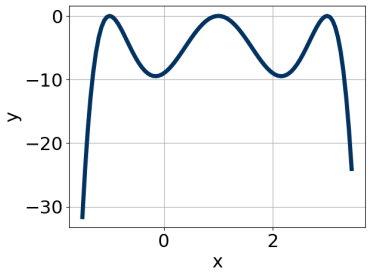
26. Which of the following equations *could* be of the graph presented below?



A. $-3(x-3)^4(x+1)^7(x-1)^7$

B. $20(x-3)^4(x+1)^6(x-1)^5$

C. $-13(x-3)^6(x+1)^{10}(x-1)^8$

D. $-10(x-3)^6(x+1)^8(x-1)^{11}$

E. $13(x-3)^8(x+1)^8(x-1)^8$

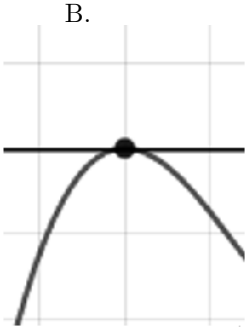
---

27. Describe the zero behavior of the zero $x = -9$ of the polynomial below.

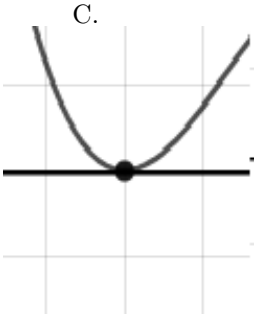
$$f(x) = 2\,(x-9)^9\,(x-2)^{10}\,(x+2)^6\,(x+9)^8$$

A.

B.



C.



D.

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28. Construct the lowest-degree polynomial given the zeros below. Then, choose the intervals that contain the coefficients of the polynomial in the form $x^3 + bx^2 + cx + d$.

$$2 - 5i \text{ and } -3$$

A. $b \in [0.2, 1.4], c \in [10, 19],$ and $d \in [-89, -83]$

B. $b \in [0.2, 1.4], c \in [7, 14],$ and $d \in [10, 18]$

C. $b \in [0.2, 1.4], c \in [-1, 4],$ and $d \in [-8, -3]$

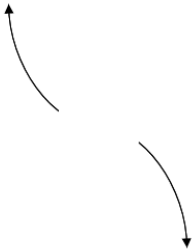
D. $b \in [-2, -0.7], c \in [10, 19],$ and $d \in [79, 89]$

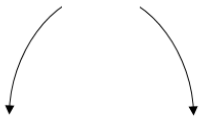
E. None of the above.

---

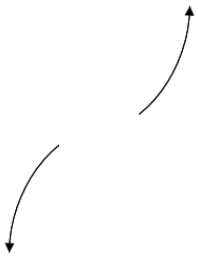
29. Describe the end behavior of the polynomial below.

$$f(x) = 6\,(x-9)^4\,(x-2)^5\,(x+2)^8\,(x+9)^2$$

A. 

B. 

C. 

D. 

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30. Construct the lowest-degree polynomial given the zeros below. Then, choose the intervals that contain the coefficients of the polynomial in the form $ax^3 + bx^2 + cx + d$.

$$\frac{5}{2}, \frac{-4}{5}, \frac{2}{5}$$

A. $a \in [45, 62], b \in [101, 107], c \in [-71, -61],$ and $d \in [-41, -36]$

B. $a \in [45, 62], b \in [-113, -96], c \in [-71, -61],$ and $d \in [-41, -36]$

C. $a \in [45, 62], b \in [62, 69], c \in [-136, -133],$ and $d \in [30, 46]$

D. $a \in [45, 62], b \in [141, 146], c \in [31, 45],$ and $d \in [-41, -36]$

E. $a \in [45, 62], b \in [-113, -96], c \in [-71, -61],$ and $d \in [30, 46]$
