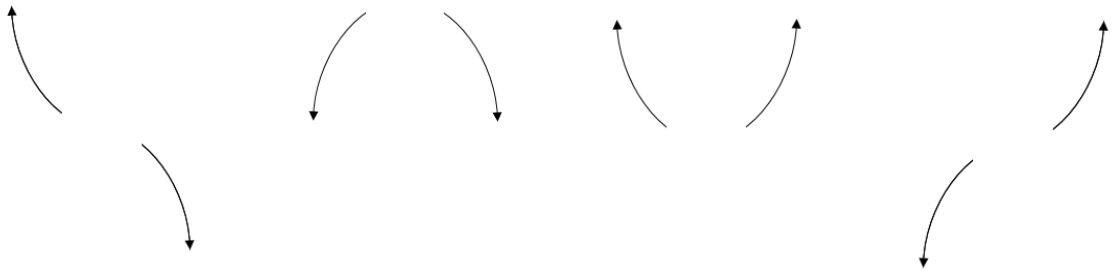
26. Describe the end behavior of the polynomial below.

$$f(x) = -7\,(x-8)^2\,(x-7)^4\,(x+7)^5\,(x+8)^5$$

A. B. C. D.



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

$$4 - 2i \text{ and } 4$$

A. $b \in [-2, 2], c \in [-12, -6],$ and $d \in [15, 19]$

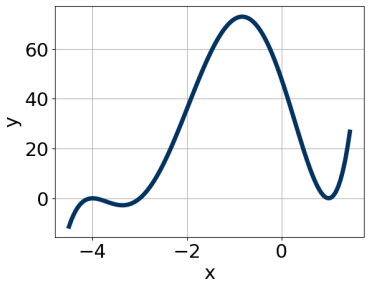
B. $b \in [5, 17], c \in [44, 60],$ and $d \in [79, 89]$

C. $b \in [-2, 2], c \in [-7, 2],$ and $d \in [-12, -5]$

D. $b \in [-19, -9], c \in [44, 60],$ and $d \in [-83, -74]$

E. None of the above.

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



A. $3(x-1)^4(x+4)^7(x+3)^{11}$

B. $2(x-1)^6(x+4)^8(x+3)^5$

C. $16(x-1)^6(x+4)^5(x+3)^{10}$

D. $-17(x-1)^8(x+4)^8(x+3)^{10}$

E. $-13(x-1)^8(x+4)^4(x+3)^{11}$

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

$$-2, -3, \frac{2}{5}$$

A. $a \in [3, 6], b \in [22.5, 25.8], c \in [18, 22],$ and $d \in [8, 19]$

B. $a \in [3, 6], b \in [-28.1, -24.8], c \in [37, 45],$ and $d \in [-13, -8]$

C. $a \in [3, 6], b \in [-26.2, -20.1], c \in [18, 22],$ and $d \in [8, 19]$

D. $a \in [3, 6], b \in [22.5, 25.8], c \in [18, 22],$ and $d \in [-13, -8]$

E. $a \in [3, 6], b \in [0.9, 6.3], c \in [-39, -23],$ and $d \in [8, 19]$

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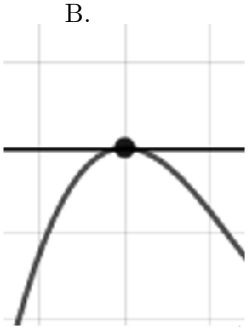
30. Describe the zero behavior of the zero $x = 2$ of the polynomial below.

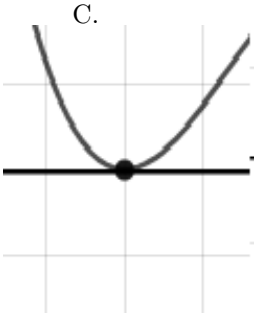
$$f(x) = -5\,(x-6)^{10}\,(x-2)^{8}\,(x+2)^{7}\,(x+6)^{9}$$

A.

B.



C.



D.