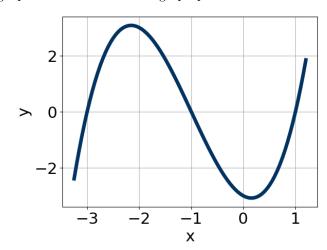
26. Which of the following equations *could* be of the graph presented below?

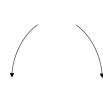


- A.  $(x-1)(x+1)(x+3)^2$
- B.  $(x-1)^2 (x+1) (x+3)^2$
- C. (-x-3)(x-1)(x+1)
- D.  $-(x-1)(x+1)(x+3)^2$
- E. (x-1)(x+1)(x+3)
- 27. Choose the end behavior of the polynomial below.

$$f(x) = -7(x-7)^{5}(x-4)^{2}(x+4)^{3}(x+7)^{4}$$



Α.



Β.



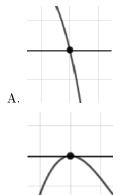
С.

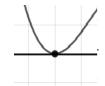


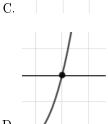
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28. Describe the zero behavior of the zero -7 of the polynomial below.

$$f(x) = -7(x-7)^5(x-4)^2(x+4)^3(x+7)^4$$







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

$$-3, -2, \frac{3}{4}$$

- A.  $a \in [-2, 5], b \in [-24, -19], c \in [38, 40], \text{ and } d \in [-21, -10]$
- B.  $a \in [-2, 5], b \in [-22, -14], c \in [8, 12], \text{ and } d \in [14, 20]$
- C.  $a \in [-2, 5], b \in [-10, -2], c \in [-22, -20], \text{ and } d \in [14, 20]$
- D.  $a \in [-2, 5], b \in [12, 23], c \in [8, 12], \text{ and } d \in [-21, -10]$
- E.  $a \in [-2, 5], b \in [12, 23], c \in [8, 12], \text{ and } d \in [14, 20]$
- 30. Construct the lowest-degree polynomial given the zeros below. Then, choose the intervals that contain the coefficients of the polynomial in the form  $x^3 + bx^2 + cx + d$ .

$$-4i$$
 and 1

- A.  $b \in [-3.1, -0.9], c \in [15.5, 18], \text{ and } d \in [-17, -13]$
- B.  $b \in [0, 4.8], c \in [-1.2, -0.9], \text{ and } d \in [-3, 4]$
- C.  $b \in [0, 4.8], c \in [-20.1, -15.9]$ , and  $d \in [11, 17]$
- $\text{D. } b \in [0,4.8], c \in [15.5,18], \text{ and } d \in [11,17]$
- E.  $b \in [0, 4.8], c \in [2.1, 5.9], \text{ and } d \in [-10, -3]$