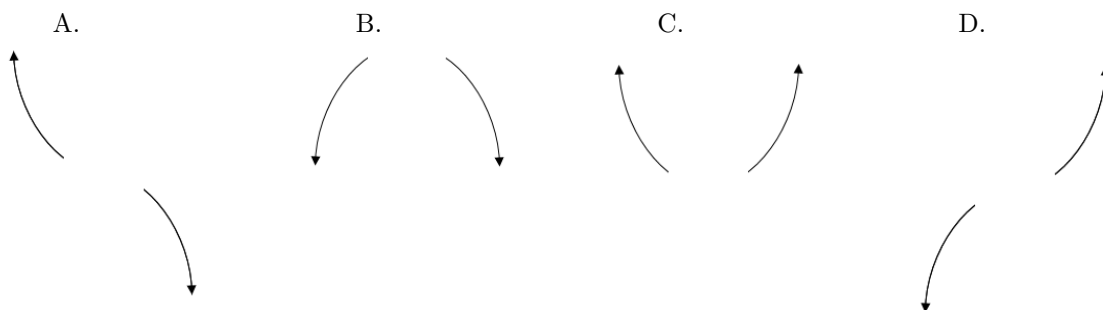
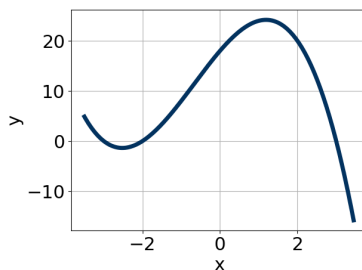


26. Describe the end behavior of the polynomial below.

$$f(x) = 6(x - 8)^5(x - 3)^7(x + 3)^2(x + 8)^4$$



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



- A.  $13(x + 2)^{11}(x - 3)^5(x + 3)^7$   
 B.  $-14(x + 2)^7(x - 3)^{11}(x + 3)^9$   
 C.  $-8(x + 2)^{10}(x - 3)^9(x + 3)^{11}$   
 D.  $-12(x + 2)^8(x - 3)^{10}(x + 3)^9$   
 E.  $5(x + 2)^{10}(x - 3)^7(x + 3)^7$

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

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

- A.  $a \in [4, 13], b \in [35, 39], c \in [43, 46],$  and  $d \in [13, 26]$   
 B.  $a \in [4, 13], b \in [-7, 6], c \in [-32, -23],$  and  $d \in [-17, -5]$   
 C.  $a \in [4, 13], b \in [4, 14], c \in [-26, -18],$  and  $d \in [13, 26]$   
 D.  $a \in [4, 13], b \in [-13, -7], c \in [-26, -18],$  and  $d \in [13, 26]$   
 E.  $a \in [4, 13], b \in [4, 14], c \in [-26, -18],$  and  $d \in [-17, -5]$

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

$$2 + 4i \text{ and } -3$$

- A.  $b \in [0.76, 3.05]$ ,  $c \in [7.39, 9.98]$ , and  $d \in [-63, -57]$   
B.  $b \in [0.76, 3.05]$ ,  $c \in [0.43, 1.11]$ , and  $d \in [-7, -1]$   
C.  $b \in [-2.67, 0.41]$ ,  $c \in [7.39, 9.98]$ , and  $d \in [59, 65]$   
D.  $b \in [0.76, 3.05]$ ,  $c \in [-2.3, -0.94]$ , and  $d \in [-15, -9]$   
E. None of the above.

30. Describe the zero behavior of the zero  $x = -6$  of the polynomial below.

$$f(x) = -2(x - 9)^3(x - 6)^4(x + 6)^7(x + 9)^5$$

