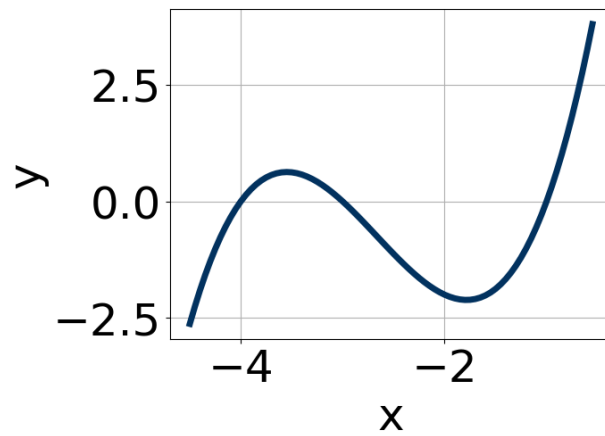


1. Describe the zero behavior of the zero  $x = -9$  of the polynomial below.

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

2. Write an equation that *could* represent the graph below.



3. Construct the lowest-degree polynomial given the zeros below.

$$1, \frac{7}{4}, \text{ and } \frac{5}{3}$$

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

$$f(x) = 2(x - 7)^6(x + 7)^4(x + 9)^8(x - 9)^7$$

5. Construct the lowest-degree polynomial given the zeros below.

$$7, \frac{-7}{3}, \text{ and } 4$$

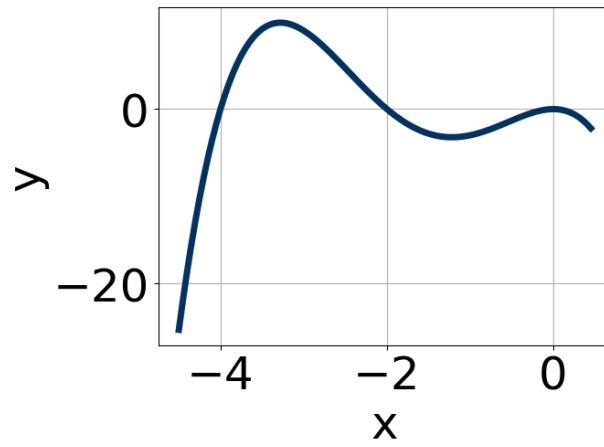
6. Describe the end behavior of the polynomial below.

$$f(x) = 7(x + 6)^3(x - 6)^6(x - 3)^3(x + 3)^3$$

7. Construct the lowest-degree polynomial given the zeros below.

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

8. Write an equation that *could* represent the graph below.





9. Construct the lowest-degree polynomial given the zeros below.

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

10. Describe the end behavior of the polynomial below.

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