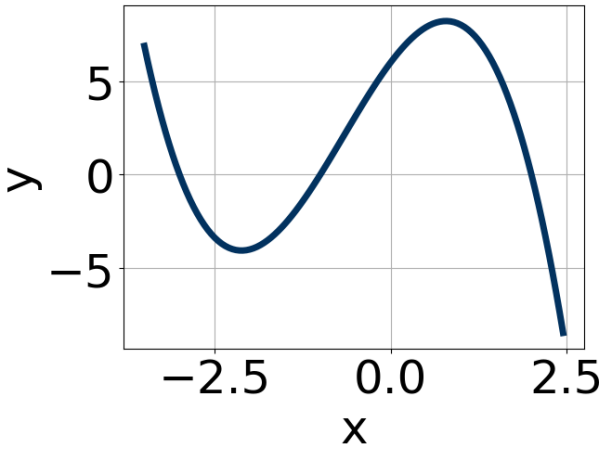
1. Describe the zero behavior of the zero $x = 7$ of the polynomial below.

$$f(x) = 7(x+2)^{12}(x-2)^{8}(x+7)^{12}(x-7)^{9}$$

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



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

$$-4, \frac{-2}{5}, \text{ and } \frac{-5}{3}$$

4. Describe the zero behavior of the zero $x = -3$ of the polynomial below.

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

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

$$\frac{4}{3}, \frac{-7}{2}, \text{ and } \frac{6}{5}$$

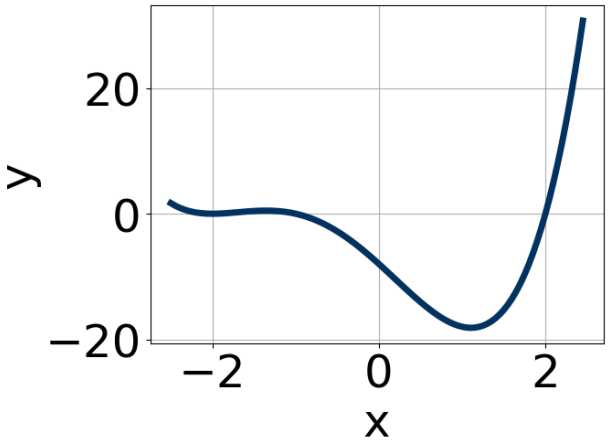
6. Describe the end behavior of the polynomial below.

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

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

$$5 - 3i \text{ and } -1$$

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



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

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

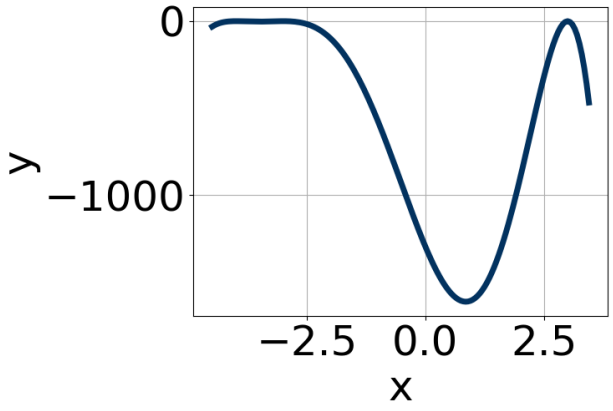
10. Describe the end behavior of the polynomial below.

$$f(x) = 5(x+8)^5(x-8)^{10}(x+3)^5(x-3)^5$$

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

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

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



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

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

14. Describe the zero behavior of the zero $x = -8$ of the polynomial below.

$$f(x) = -6(x+2)^{11}(x-2)^{7}(x+8)^{3}(x-8)^{2}$$

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

$$\frac{1}{2}, \frac{3}{4}, \text{ and } 4$$

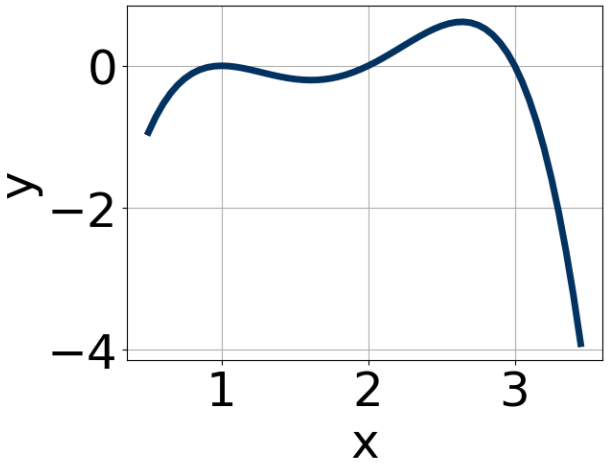
16. Describe the end behavior of the polynomial below.

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

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

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

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



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

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

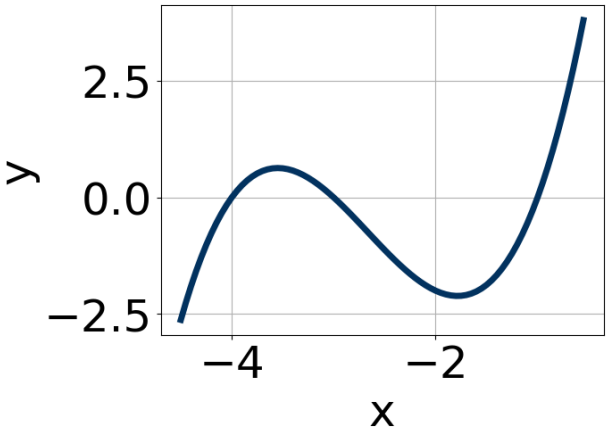
20. Describe the end behavior of the polynomial below.

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

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

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

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



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

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

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

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

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

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

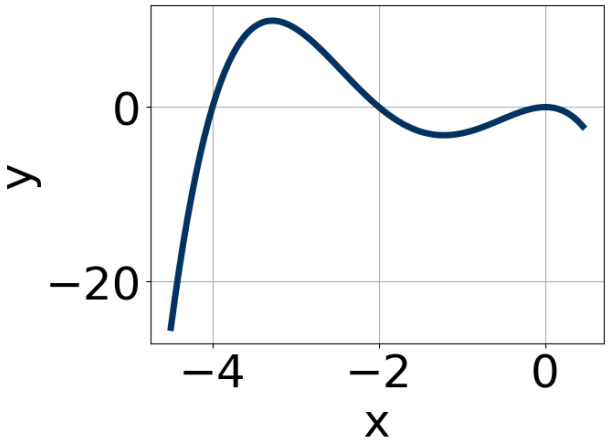
26. Describe the end behavior of the polynomial below.

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

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

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

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



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

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

30. Describe the end behavior of the polynomial below.

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