In Exercises 11–16, use the Rational Zero Test to list all possible rational zeros of \( f \) and verify that the zeros of \( f \) shown on the graph are contained in the list.

13. \( f(x) = -4x^3 + 15x^2 - 8x - 3 \)

In Exercises 21–36, find the real zeros of the given function.

21. \( f(x) = x^3 - 6x^2 + 11x - 6 \)

25. \( h(t) = t^3 + 12t^2 + 21t + 10 \)

27. \( f(x) = x^3 - 4x^2 + 5x - 2 \)

31. \( f(x) = 4x^3 - 3x - 1 \)

33. \( f(y) = 4y^3 + 3y^2 + 8y + 6 \)

35. \( f(x) = x^4 - 3x^2 + 2 \)
In Exercises 37–44, find all real solutions of the given polynomial equation.

39. \[ x^4 - 13x^2 - 12x = 0 \]

43. \[ x^5 - 7x^4 + 10x^3 + 14x^2 - 24x = 0 \]

In Exercises 45–48, (a) list the possible rational zeros of \( f \); (b) sketch the graph of \( f \) so that some of the possible zeros in part (a) can be disregarded, and then (c) determine all real zeros of \( f \).

47. \[ f(x) = 4x^3 + 7x^2 - 11x - 18 \]

51. \[ f(x) = x^3 - \frac{1}{4}x^2 - x + \frac{1}{4} \]

53. An open box is to be made from a rectangular piece of material, 9 inches by 5 inches, by cutting equal squares from each corner and turning up the sides (see figure). Find the dimensions of the box, given that the volume is to be 18 cubic inches.