

41–46. For each function, find all critical numbers and then use the second-derivative test to determine whether the function has a relative maximum or minimum at each critical number.

41. $f(x) = x^3 - 6x^2 + 9x - 2$

42. $f(x) = x^3 - 12x + 4$

✓ **43.** $f(x) = x^4 - 4x^3 + 4x^2 + 1$

44. $f(x) = x^4 - 2x^2 + 1$

✓ **45.** $f(x) = x + \frac{9}{x}$

46. $f(x) = \frac{x}{4} + \frac{1}{x}$