**33.** $f(x) = \dfrac{x^2 - 5x}{1 + 2\sqrt[3]{x}}$

**34.** $f(x) = \dfrac{x(1 + 3\sqrt{x})}{\sqrt{x} + 6}$

*In Exercises 35 – 44, you are given that f(x) and g(x) are differentiable functions and that f(2) = 3, f′(2) = –1, g(2) = –11, and g′(2) = 6. In each exercise, find the value of h′(2).*

**35.** $h(x) = x \cdot f(x)$

**36.** $h(x) = \dfrac{f(x)}{2x + 1}$

**37.** $h(x) = \dfrac{f(x) + 3x}{f(x) - 3x}$

**38.** $h(x) = \dfrac{g(x)}{f(x)}$

**39.** $h(x) = \dfrac{g(x)}{3x + 10}$

**40.** $h(x) = (3x + 5) \cdot f(x)$

**41.** $h(x) = \dfrac{16x + 1}{f(x) - 11x + 1}$

**42.** $h(x) = f(x) \cdot g(x)$

**43.** $h(x) = \dfrac{f(x)}{g(x)}$

**44.** $h(x) = g(x) \cdot (1 + 3x)$

*In Exercises 45 – 50, find the equation of the line tangent to the graph f(x) at the (x, y) coordinate indicated.*

**45.** $f(x) = \left(x + 5x^{\frac{1}{2}}\right)(6x^2 - 12x + 2)$; (4, 700)

**46.** $f(x) = \dfrac{(11x^2 - 3x + 2)}{x^2 + 1}$; (1, 5)

**47.** $f(x) = \dfrac{2 - 3x}{5 + 2x}$; (0, 0.4)

**48.** $f(x) = (x^5 - 5)(x^3 - x - 1)$; (0, 5)

**49.** $f(x) = \dfrac{20}{17x + 3}$; (1, 1)

**50.** $f(x) = \dfrac{\sqrt{x} + 2}{x^2 - 1}$; $\left(9, \dfrac{1}{16}\right)$

**51.** Given $f(x) = (1 - x)(16 - x^2)$, find the (x, y)-coordinates on the graph where the tangent line is horizontal.

**52.** Given $g(x) = (x - 10)(x^2 + 2x + 1)$, find any (x, y)-coordinates on g(x) for which the tangent line is horizontal.