

Quotient Rule Homework Key

$$1. f'(x) = 15x^4 - 18x^2$$

$$2. f'(x) = \frac{-x^2 - 2x - 4}{(x^2 - 4)^2}$$

$$3. f'(x) = \frac{x^2 - 2x}{(x-1)^2}$$

$$4. f'(x) = 12x^3 - \frac{6a}{x^7} - \frac{7}{bx^8} + \frac{9x^{\frac{5}{4}}}{4} - \frac{5}{11x^{\frac{16}{11}}}$$

$$5. f'(x) = \frac{-14}{(4x-1)^2}$$

$$6. f'(x) = \frac{-x^6 + 4x^3 + 3x^2}{(x^4 + 1)^2}$$

$$7. f'(x) = \frac{2}{5}x - \frac{3}{5}$$

$$8. f'(x) = \frac{-x^4 + 2x^2 + 2x}{(x^3 + 2x + 1)^2}$$

$$9. f'(x) = \frac{x^2 - 2x + 5}{(x-1)^2}$$

$$10. f'(x) = -\frac{5}{x^2}$$

$$11. f'(x) = \frac{-21(x+5)^2}{(x-2)^4}$$

$$12. y - 5 = -13(x - 1)$$