

Quoth the Raven, "Quotient Rule"

Date _____

Differentiate each function with respect to x . Simplify your answers.

1) $f(x) = \frac{3x^3}{x^5 + 2}$

2) $f(x) = \frac{3x^5 + 2}{3x^3 - 5}$

3) $f(x) = \frac{3x^5 - 5}{x^5 - 4}$

4) $y = \frac{2x^5}{5x^2 - 5}$

5) $f(x) = \frac{3}{5x^3 - 4}$

6) $f(x) = \frac{2}{5x^4 - 3}$

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

8) $f(x) = \frac{2x^4 - 5x^2}{x^4 + 5}$

$$9) f(x) = \frac{4}{4x^5 - 5}$$

$$10) f(x) = \frac{2x^5 + 3x^4}{3x^3 + 2}$$

$$11) y = \frac{2}{3x^5 + 3}$$

$$12) y = \frac{4x^4 - 5x^2 + 2}{4x^3 + 4}$$

$$13) f(x) = \cot x$$