

Product/Quotient Rule WS 3

"Practice Quiz"

Directions: #1-10 Find the equation for the slope of the tangent line.

$$1) f(x) = \frac{\tan(x)}{4x^2}$$

$$2) f(x) = \frac{3x^2 \sin(x)}{6e^x}$$

$$3) f(x) = (4x)(2^x) - 2^x$$

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

$$5) f(x) = \frac{\cot(x)}{1 + \cot(x)}$$

$$6) f(x) = \frac{x+1}{x-1}$$

$$7) f(x) = \frac{(4x^2 - 16)(4x^2 + 16)}{(x+5)(x-5)}$$

$$8) f(x) = \sqrt[5]{x} (\cot(x))(e^x)$$

asymptotes and concave for the function

$$9) f(x) = x^8 \sec(x) - \frac{1-x^2}{x+x^2-6x^3}$$

$$10) f(x) = \frac{16}{\sin(x)} \quad \frac{e^x \sin x}{\frac{1}{x} + \frac{2}{x^2}}$$