

1) For each of the following find y'

$$y = \tan^3(\sqrt{4 - x^4})$$

$$y = \csc^2(\sin x^3)$$

$$y = \frac{e^{\sin 2x}}{(x^2 + 3)^2}$$

$$y = \frac{x^2 - 1}{x^2 + 1}$$

$$y = \frac{x^2 - 2}{(x^2 + 1)^3}$$

$$y = (\sin^2 x)(\sin 2x)$$

$$y = \sin[\cos(\sin x)]$$

2) Find $f'(x)$ if $f(x) = \frac{-2x}{(x^2 - 1)^2}$

3) Given $2x^3 + 3x^2 - 36x + 1$. Find all points where the tangent is horizontal.

4) Find all points on the graph of $f(x) = x^2 + 4$ that have a tangent which passes through the point (0,0)