1. Neatly sketch the graph of the function $y = \sin^{-1}(x)$.

2. Find the equation of the tangent line to the graph of $y = x^3 + 2e^x$ at the point (0, 2).

$$y' = 3x^2 + 2e^x$$

slope = $\frac{\sqrt{101}}{2}$

$$y - 2 = 2x$$

Name: SOLUTIONS

Quiz #5 - October 10, 2007

1. Evaluate $\tan(\cos^{-1}(x))$.

$$\tan(\cos^{-1}(x)) = \frac{\sqrt{1-x^2}}{x}$$

2. Find the derivative of

$$g(t) = \frac{2t}{4 + t^2}$$

$$\frac{(4t^2)^2 - 2t \cdot 2t}{(4t^2)^2} = \frac{84 - 2t^2}{(4t^2)^2}$$