Math 143 Set 1

1. Find the equation of the line tangent to:

a. e^{-2x} at $x = 0$.

b. $\sin x$ at $x = \pi/2$.

c. $\arctan x$ at $x = \pi/4$.

2. Find the equation of the parabola tangent to:

a. $1/(1-x^2)$ at $x = 2$.

b. $\ln(1+x)$ at $x = 0$.

c. $\sin x$ at $x = \pi/2$.

d. e^{-x^2} at $x = 0$.

e. $ax + b$ at $x = c$ where a, b, c are constants.