BC CALCULUS – WORKSHEET 4.4 Name _____

Find $\frac{dy}{dx}$

(#1) $y = \sin^{-1}\left(\frac{1}{3}x\right)$

(#2) $y = \tan^{-1}(x^2)$

(#3) $y = \sec^{-1}(x^7)$

(#4) $y = (\tan x)^{-1}$

(#5) $y = \sin^{-1}\left(\frac{1}{x}\right)$

(#6) $y = \ln(\cos^{-1} x)$

(#7) $y = e^x \sec^{-1} x$

(#8) $y = \sin^{-1} x + \cos^{-1} x$

Find dy/dx using implicit differentiation

(#9) $x^3 + x\tan^{-1} y = e^y$

(#10) $\sin^{-1}(xy) = \cos^{-1}(x - y)$