

Name: SOLUTIONS

Quiz #6 - October 22, 2007

1. Find y' by implicit differentiation:

$$\sin(y) + xy + y^2 = 3.$$

$$\cos(y)y' + xy' + y + 2yy' = 0$$

$$y' = \frac{-y}{\cos(y) + x + 2y}.$$

2. Let $y = x^x$. Find y' .

$$\ln y = x \ln x$$

$$\frac{1}{y}y' = \ln x + 1$$

$$y' = x^x(\ln x + 1).$$