Name:

Sec. 3.6 - Logarithmic functions

Math 251

Find the derivatives of the following functions

1.
$$y = \ln(e^{-x} + xe^{-x})$$

$$2. \ x^y = y^x$$

3.
$$y = \ln(x^2 + y^2)$$

4.
$$y = (\ln(x))^{\cos(x)}$$