

# Math 2215 - Calculus 1

## Exercise #1 - 2005.09.08

### Solutions

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Solve the following equations for  $y$ :

1.  $e^{2x} \ln(y) = 2x^2 + 1$

$$y = e^{(2x^2+1)e^{-2x}}$$

2.  $\ln\left(\frac{y+1}{x}\right) = 2x^2 + 4$

$$y = x\left(e^{2x^2+4}\right) - 1$$

3.  $e^{2y^3+x} = x + 2$

$$y = \sqrt[3]{\frac{1}{2} \ln(x+2) - x}$$

4.  $\ln(2y) + \ln(1 + e^x) = 2x^2 - 1$

$$y = \frac{1}{2} \frac{e^{2x^2-1}}{1 + e^x}$$

5.  $e^{xy} + 1 = e^y x$

$$y = \frac{\ln(x) - 1}{x - 1}$$

6.  $e^{2+\ln(y)} = xy + 1$

$$y = \frac{1}{e^2 - x}$$

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

$$y = \ln(\ln(x) - 1)$$