

Math 307 Quiz 5

October 17, 2014

Problem 1. Determine if the following equation is exact. If it is, find the general solution.

$$3x^2y^4 + \cos(x) + (4x^3y^3 + 2y)y' = 0$$

Problem 2. Determine if the following equation is exact. If it is, find the general solution.

$$xe^{xy} - ye^{xy}y' = 0$$

Problem 3. Find an integrating factor for the following equation

$$\tan(y) + xy' = 0$$

You do NOT need to solve the equation.