QUIZ 9 - MATH 151 Your Name:

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. If $\sqrt{x+y} = 1 + x^2 y^2$, find $\frac{dy}{dx}$.

2. The trough shown below (whose side is an isosceles triangle) is filling with water at the rate of 12 ft³/min. How fast is the water level rising when the water is $\frac{1}{2}$ foot deep?

