

This quiz is worth 10 points and you have 10 minutes to complete it. Show all work and circle your final answers.

Calculators are NOT allowed today.

1. (3 pts) The following statement is FALSE: $\sqrt{x^2 + y^2} = x + y$. Find a counterexample and briefly explain why it is a counterexample.

2. (7 pts) Use the DEFINITION OF DERIVATIVE (not the power rule!) to find the derivative of the function $f(x) = x^{\frac{1}{2}}$.