MATH101, Section 51
Fall 2017, Term 171

Quiz 4
Version A

Instructions: Show Your Work!

1. (3 pts) Find all points at which the tangent line to the curve $x^2 + 3xy + 9y^2 = 3$ is horizontal.

2. (3 pts) Find $f'(0)$ where

$$f(x) = \frac{(x-1)(2x-1)^2}{(3x-1)^3(4x-1)^4}$$

3. (4 pts) A man 2 m tall walks directly away from a street light that is 8 m high at the rate of $3/2$ m/sec. How fast is the length of his shadow changing?