MATH101, Section 51
Fall 2017, Term 171

Quiz 2
Version A

Instructions: Show Your Work!

1. (3 pts) In interval notation, where is the following function continuous?

$$f(x) = \frac{\ln(2x+1)}{x^2-4}.$$

2. (3 pts) Find all, if any, vertical and horizontal asymptotes of the graph of the function

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

3. (3 pts) Use the Intermediate Value Theorem to prove that the equation $\cos x = x$ has a real solution.

4. (3 pts) Using the definition of the derivative find $f'(3)$ where

$$f(x) = 2x^2 + 1.$$