

Math101 Calculus I Term 072

Quiz 5

Name:

ID #:

Section #:

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1. Let  $f(x) = 2x^4 - 4x^2 + 1$ .

- (a) Find the interval on which  $f$  is increasing or decreasing
- (b) Find the local maximum and minimum values of  $f$
- (c) Find the intervals of concavity and the inflection points of  $f$

2. Determine

- (a)  $\lim_{x \rightarrow 0} \frac{\sin x - x}{x^3}$
- (b)  $\lim_{x \rightarrow 0} (\csc x - \cot x)$