Calculus I, Fall 2014

Quiz 3

Nov 06, 2014

Show all details.

- 1. State the Mean Value Theorem. Need not prove it.
- 2. Let  $f(x) = x^{2/3}(3-x)$ . Find absolute max and min of f on [-3,3].
- 3. True or False? Explain.

 $|\cos x - 1| \le |x|$  for all values of x.

- 4. Show that  $e^x \ge 1 + x + x^2/2$  on  $x \ge 0$ .
- 5. Sketch the graph of  $f(x) = x^4 4x^3 + 10$ . Indicate all critical points and points of inflection, if any.

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