Quiz 1
MATH 1231 – Single-variable Calculus I
Summer 2016

Total Points: 10   **Total Time:** 15 minutes

Name: _____   **Date:** _____

Read all of the following information before starting the quiz:

- Show all work, clearly and in order, to get full credit. I reserve the right to take off points if I cannot see how you arrived at your answer (even if your final answer is correct).
- Do not use calculators.
- Circle or otherwise indicate your final answers.

1. Determine whether the following function is odd, even or neither   **(4 points)**

$$f(x) = x^2|x^3|$$

2. Let a function be given by   **(6 points)**

$$f(t) = \frac{t^2 - 9}{t^2 + 2t - 15}$$

     (a) Find the domain of f.   (2 points)

(b) Find the following limit   (2 points)

$$\lim_{t \to 3} f(t)$$

(c) Let a function g be defined by   (2 points)

$$g(t) = \begin{cases} \frac{t^2 - 9}{t^2 + 2t - 15} & \text{if } t \in [0, 3) \cup (3, \infty) \\ \frac{3}{4} & \text{if } t = 3 \end{cases}$$

Is g continuous at $t = 3$? Justify your answer.