Quiz 02 – Version B

Name: _____ **UID:** _____

1. (5 points) Evaluate the limit using the important trigonometric limits. Show your reasoning.

$$\lim_{x \to 0} \frac{\sin 4x}{\tan 3x}.$$

2. (5 points) Use the Intermediate Value Theorem to show that

$$x^3 + 3x = 6$$

has a solution in the interval $[1, 2]$. State the continuity hypothesis and check the endpoint values needed to apply the theorem.