

Name _____ No Calculators. Present neatly. Score _____.

1. Evaluate the limit or explain why it does not exist.

a)

$$\lim_{h \rightarrow 0} \frac{\sin h}{1 - \cos h}$$

b)

$$\lim_{x \rightarrow 0} \frac{x^2 - 3 \sin x}{x}$$

2. In grammatically correct English, briefly describe the '**Continuity at a Point**' to a non-mathematical person. Formally, what does it mean for a function to be continuous at a point?

Your work:

Name _____ **No Calculators. Present neatly. Score _____.**

1. Evaluate the limit or explain why it does not exist.

a)

$$\lim_{x \rightarrow 0} \frac{\tan 3x^2 + \sin^2 5x}{x^2}$$

b)

$$\lim_{x \rightarrow 0} \frac{x}{\cos\left(\frac{1}{2}\pi - x\right)}$$

2. In grammatically correct English, briefly describe the Intermediate Value Theorem to a non-mathematical person.

Your work: