

Name: _____

Date: _____

Instructions: Though calculators can be used for all the questions, all problems require you to show your work. Any answer without proper justification will receive **ZERO** credit. Only **EXACT** answers will receive full credit unless otherwise noted.

1. Determine $\lim_{x \rightarrow 0} \frac{1 - \cos 3x}{8x^2}$

2. Determine $\lim_{x \rightarrow 0^+} x^{2x}$