$\begin{array}{c} \textit{University of Lethbridge} \\ \text{Department of Mathematics and Computer Science} \\ \mathbf{MATH~1565 - Quiz~\#2} \end{array}$

Print your name and student number clearly in the space above.

Complete the problems on the back of this page to the best of your ability. For full marks, provide complete details.

[4] 1. Calculate $\lim_{x\to 0} \frac{\sin^2(5x)}{1-\cos(2x)}$.

[4] 2. Calculate $\lim_{x\to 0} x^2 \cos(\frac{7}{x})$.

[2] 3. State precisely the Intermediate Value Theorem.