MAT 136 (Calculus I), Prof. Jim Swift
Worksheet 7, on Continuity and Algebraic Limits.

1. The function $f(x) = e^{\cos(x)}$ is continuous on the set of all real numbers. Evaluate the limit.

$\lim_{x \to 1} e^{\cos(x)} =$

2. The function $f(x) = e^{-1/x^2}$ is continuous on its domain. Note that $f(0)$ is undefined. Can we conclude that $\lim_{x \to 0} f(x)$ DNE?

3. Evaluate $\lim_{x \to 2} \dfrac{x^2 - 3x + 2}{x - 2}$, showing all the steps and using good grammar.