MAT 136 (Calculus I) Prof. Swift
In-Class Worksheet: L'Hospital's Rule

Consider $\lim\limits_{x \to 1} \dfrac{x-1}{x^2 + 2x - 3}$.

1. Show that the limit is an indeterminate form of type $\frac{0}{0}$.

2. Note that $\frac{0}{0}$ is undefined. Does this mean that $\lim\limits_{x \to 1} \dfrac{x-1}{x^2 + 2x - 3}$ does not exist?

3. Evaluate the limit using L'Hospital's rule.

4. Evaluate the limit by factoring, like we did in Exam 1.