L'Hospital's Rule §4.4

Get into a group of three people and work on the following problems. Only turn in *ONE* copy from each group by Tuesday the 27th by 6pm. Make sure that your answers are written up completely and clearly (with correct notation!!!) as there will be no opportunity for rewriting problems.

1. Let $f(x) = \frac{e^x}{x^2}$.

   (a) Consider $\lim_{x \to \infty} f(x)$. What, if any, indeterminate type is this?

   (b) Evaluate the limit by either using chapter 2 methods or L'Hospital's Rule.

2. Let $f(x) = \frac{\sin x}{1 - \cos x}$.

   (a) Consider $\lim_{x \to \pi^-} f(x)$. What, if any, indeterminate type is this?

   (b) Evaluate the limit by either using chapter 2 methods or L'Hospital's Rule.

3.