

REVIEW SECTION 4.8 L'HÔPITAL'S RULE

1. When can you use L'Hôpital's Rule *directly*?

2. Evaluate the following limits.

(a) $\lim_{x \rightarrow 0} \frac{\cos(\pi x) - 1}{x^2}$

(b) $\lim_{x \rightarrow -\infty} \frac{e^x}{x}$

(c) $\lim_{x \rightarrow \infty} \left(1 - \frac{4}{x}\right)^x$