

Math 180
Winter, 2009

Name _____

Homework #14
Due Monday, February 2
No late papers accepted! No excuses!

1. Evaluate the following limits using L'Hopital's Rule if necessary.

a) $\lim_{x \rightarrow 0} \frac{\arcsin x}{x}$

b) $\lim_{x \rightarrow \infty} x^2 e^{-x}$

c) $\lim_{x \rightarrow 2^+} \left(\frac{8}{x^2 - 4} - \frac{x}{x - 2} \right)$

d) $\lim_{x \rightarrow 0^+} (\sin x)^x$

e) $\lim_{x \rightarrow \infty} x \tan\left(\frac{1}{x}\right)$