

Name _____

Homework 15
Section 4.7

1. (7) Evaluate $\lim_{x \rightarrow 0} \frac{\cos(ax) - \cos(bx)}{x^2}$.

2. (6) Evaluate the limit: $\lim_{x \rightarrow \infty} \frac{(\ln x)^2}{x}$.

3. (7) Calculate $\lim_{x \rightarrow 1} \left(\frac{1}{\ln(x)} - \frac{1}{x-1} \right)$. Hint: rewrite the expression.