

Name: _____

Panther ID: _____

Worksheet week 10

Calculus I

Spring 2015

1. Use l'Hopital's rule to compute each of the following limits (2.5 pts each):

(a) $\lim_{x \rightarrow 0} \frac{\cos(5x) - \cos(3x)}{x^2}$

(b) $\lim_{x \rightarrow +\infty} \frac{(\ln x)^2}{x}$

(c) $\lim_{x \rightarrow 0} \left(\cot x - \frac{1}{x} \right)$

(d) $\lim_{x \rightarrow 0^+} \left(1 + \sin(4x) \right)^{\cot x}$