

Math 166: Honors Calculus II
Quiz 7 *Mar. 21, 1996*

Name: _____

1. a) Define $\lim_{x \rightarrow \infty} f(x) = A$.

b) State L'Hôpital's Theorem.

2. Compute the following limits. Be sure to justify your answers.

a) $\lim_{x \rightarrow 1} \frac{n - \sum_{k=1}^n \cos(2\pi kx)}{(x-1)^2}$

b) $\lim_{x \rightarrow \infty} \frac{\sqrt{x^4 + 2x^2 + 4}}{\sqrt[3]{8x^6 + 4x^4 + 1}}$