

MthU242
Northeastern University
Quiz #6
20 Minutes

Calculus II
Professor Gilmore
Feb. 21, 2008

Name: _____.

Show All Your Work

1. Give reasons why the following infinite series converge or diverge.

a.
$$\sum_{n=1}^{\infty} \frac{1 + .0000003n^2}{10,000n^2 + 200,000}$$

b.
$$37 - \frac{74}{3} + \frac{148}{9} - \frac{296}{27} + \frac{592}{81} - \dots$$

2. Do the following series converge or diverge? Give your reasons.

a.
$$\sum_{n=1}^{\infty} \frac{3n}{57n^2}$$

b.
$$\sum_{n=1}^{\infty} \frac{\ln(n)}{n}$$