

MAC 2312
Quiz 9
November 20, 2008

1) Find the sum of the following series:

$$\sum_{n=0}^{\infty} -3(.999)^n$$

$$\sum_{n=1}^{\infty} \frac{3}{n(n+3)}$$

2) Determine whether the following series converge or diverge. You may use ANY test you have learned from this week's homework (nth term divergence, integral, p-series, geometric, telescoping). Show all work, and make sure you identify the test.

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

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

$$\sum_{n=1}^{\infty} \frac{3n^3 + 2n + 1}{2n^3 + 1000n - 1}$$

$$\sum_{n=1}^{\infty} \frac{3}{n^{1.0000000000000001}}$$