

MAC 2312  
Quiz 8  
November 12, 2008

1) Determine if the following sequences converge or diverge. If a sequence converges, then find its limit. Enjoy.

$$a_n = \frac{n^2 - n + 1}{6n^2 + 5n - 3}$$

$$a_n = \frac{n^2}{\ln(n)}$$

$$a_n = 3^{7/n} + \frac{1}{n!}$$

$$a_n = \frac{n^{10} + \ln(n) + 3}{(-1)^n - 3000 \ln(n) + .001n^{10}}$$

$$a_n = (-1)^n \tan(n)$$

$$a_n = \frac{(n+3)!}{n!}$$