

Name: _____ Section: _____

Answer all questions and show your work. Unsupported answers may receive *no credit*. You may not use a calculator on this quiz. Allow 15 minutes for the quiz.

1. (3 points) Find the terms a_2 , a_3 and a_4 for the sequence defined by $a_1 = 3$ and $a_n = 1 - a_{n-1}$.

2. (3 points) Determine if the following sequences are convergent or divergent and find the limits.

(a) $a_n = 1 + 2^n$.

(b) $b_n = \frac{1}{3 + 2^{-n}}$

3. (4 points) Find the sum of the series $\sum_{n=2}^{\infty} 3^{-n}$.