

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.

Name: _____ Section: _____

1. (a) (3 points) Calculate the first 3 partial sums for the series

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

- (b) (3 points) Does this series converge or diverge. Justify your answer!

2. (4 points) Use the integral test to determine if the series

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

is convergent or divergent. Show your work!