Name: _____

Student ID: _____

Quiz 11

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. *(5 marks)* §8.2 #40 If the nth partial sum of a series $\sum_{n=1}^{\infty} a_n$ is

$$s_n = 3 - n2^{-n}$$

find a_n and $\sum_{n=1}^{\infty} a_n$.

Question 2. *(5 marks)* §8.3 #28 Determine whether the series is convergent or divergent

$$\sum_{n=1}^{\infty} \frac{1 + \sin n}{10^n}$$