Name: _____

Student ID: _____

Quiz 11

This quiz is graded out of 15 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)* §8.1 #24 Determine whether the sequence converges ot diverges. If it converges, find the limit.

$$a_n = \frac{\sin 2n}{1 + \sqrt{n}}$$

Question 2. *(5 marks)* §8.2 #16 Determine whether the series is convergent or divergent. If it is convergent, find its sum.

$$\sum_{n=1}^{\infty} [(0.8)^{n-1} - (0.3)^n]$$

Question 3. *(5 marks)* §8.2 #21 Determine whether the series is convergent or divergent. If it is convergent, find its sum.

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