

Name: _____ Student Number: _____

Department: _____ Signature: _____

Question 1.(4 pts) Test the following series for convergence or divergence.

$$\sum_{n=1}^{\infty} \frac{1}{n + n\cos^2(n)}.$$

Solution: (To receive full credit, you have to explain your answer by providing the names of the tests you use.)

Question 2.(6 pts) Find the value of the sum of the series

$$\sum_{n=1}^{\infty} \frac{4}{(2n-1)(2n+1)}$$

Solution: