

Math102 Term172  
Sec 38 Quiz 5

Name	ID	Sr
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Q1)(5points) Find the area of the surface generated by revolving the curve

$$y = \sqrt{x+1} \quad , 0 \leq x \leq 4$$

about the  $x$  -axis

Q2)(5points) Determine whether the **sequence** converges or diverges.  
If it converges, find the limit.

$$a_n = n \tan(5/n)$$

Q3) (5points) Determine whether the series converges or diverges.  
If it converges, find its sum

$$\sum_{n=1}^{\infty} \left( \cos \frac{1}{\sqrt{n}} - \cos \frac{1}{\sqrt{n+1}} \right)$$