

Name: _____

ID #: _____

Quiz 4

1. Find the centroid of the region bounded by $y = \sin(x)$ and the x -axis between $x = 0$ and $x = \pi$.

2. Determine whether the sequence given by $a_n = \frac{\ln(n)}{\ln(2n)}$ converges or diverges. If it converges, find the limit.
(As always you should fully justify your answer)

3. For which real numbers x does the series $\sum_{n=0}^{\infty} (e^x)^n$ converge? For those x determine the value of the sum in closed form.