KFUPM | Term 142 | Date: 2/3/2015

Mathematics & Statistics | MATH 102 | Duration: 20 minutes

Quiz# 2

Name: ID #: Section #: **2** Serial #:

1. Let ***R*** be the region enclosed by the graph of $y = \ln x$, the line $x = 3$, and the x-axis. Find the area of ***R***.

2. Find the volume of the solid obtained by revolving the region ***R*** in (1) above about the y-axis.

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Quiz# 2

Name: ID #: Section #: **6** Serial #:

1. The base of a solid ***S*** is the region enclosed by the x-axis, the y-axis, and the graph of $y = 1 - \sin x$. the cross section perpendicular to the x-axis is an isosceles right triangle whose hypotenuse is its base. Find the volume of the solid ***S***.

2. Find the surface area of the solid generated by revolving the curve of $x = \frac{1}{2}(e^y + e^{-y})$ from $y = 0$ to $y = \ln 2$ about the y-axis.

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Quiz# 2

Name: ID #: Section #: **15** Serial #:

1. Let ***R*** be the region enclosed between the graphs of $y = \frac{3}{x}$ and $y = \frac{3x}{x^2+1}$ from $x = 1$ to $x = \sqrt{3}$. Find the area of ***R***.

2. Find the length of the curve $y = \int_0^x \sqrt{\cos 2t}\ dt$ from $x = 0$ to $x = \frac{\pi}{4}$.

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