

King Fahd University of Petroleum & Minerals
Department of Mathematical Science- MATH-102-Term051-Quiz #3

Name:

ID:

Serial:

Note: (Do not evaluate the integrals)

Question One (6-Points)

Find the volume of the solid that results when the region enclosed by the curves is revolved about the X-axis $y = 2 - x^2$, $y = x$, $x = 0$, $y = 0$ using

a. Washers method

b. Cylindrical method

Question Two (2-Points)

Find the arc length of $y = \cosh(x)$ between $x = 0$, $x = \ln(x)$

Question Three (2-Points)

Find the area of the surface generated by revolving the curve of $y = \sqrt{4 - x^2}$, $-1 \leq x \leq 1$ about the X-axis