KFUPM – Department of Mathematics and Statistics – Term 122

MATH 102

QUIZ # 2 Code 1 (Duration = 20 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

Use cylindrical shells to find the volume of the solid obtained by rotating the region in the first quadrant enclosed by the curves $y = x^2$, $y = 2$ and $x = 0$ about the line $y = 2$.

Exercise 2 (5 points)

Find the volume of the solid obtained by rotating the region enclosed by the curves $y = x^2$, $y = 2$ and $x = 0$ about the line $y = -1$.

KFUPM – Department of Mathematics and Statistics – Term 122

MATH 102

QUIZ # 2 Code 2 (Duration = 20 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

Find the volume of the solid obtained by rotating the region enclosed by the curves $y = x^3$ and $y = x^2$ about the $x-axis$.

Exercise 2 (5 points)

Use cylindrical shells to find the volume of the solid obtained by rotating the region enclosed by the curves $y = x^3$ and $y = x^2$ about the line $x = -2$.