

King Fahd University of Petroleum and Minerals
Department of Math & Stat
Math 102, Section # 01 (082)
Quiz 2

Name: _____

ID #: _____
(Show Your Work)

1. Find the area of the region enclosed by the parabolas $y = x^2$ and $y = 2x - x^2$.
(Sketch the area) (7 points)

2. The value of the volume of the solid that is obtained by rotating the region bounded by the curves $y = \frac{1}{x}$, $x = 1$, $x = 2$ and $y = 0$ about the x -axis is equal to
(3 points)

- (a) $\pi/6$
- (b) $\pi/4$
- (c) $\pi/5$
- (d) $\pi/3$
- (e) $\pi/2$

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1. Find the area of the region bounded by the curves $y = \sin x$, $y = \cos x$, $x = 0$, $x = \pi/4$. (Sketch the region) (7 points)

2. The value of the volume of the solid that is obtained by rotating the region bounded by the curves $y = \sqrt{x}$, $x = 0$, $x = 1$ is equal to (3 points)

- (a) $\pi/5$
- (b) $\pi/4$
- (c) $\pi/2$
- (d) $\pi/3$
- (e) $\pi/6$

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Name: _____

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(Show Your Work)

1. Find the area of the region enclosed by the curves $y = 5x - x^2$ and $y = x$. (Sketch the region) (7 points)

2. The value of the volume of the solid that is obtained by rotating the region bounded by the curves $y = x^2, x = 1, y = 0$ about the x -axis is equal to (3 points)

- (a) $\pi/5$
- (b) $\pi/2$
- (c) $\pi/3$
- (d) $\pi/4$
- (e) $\pi/6$