

King Fahd University of Petroleum and Minerals
Department of Math & Stat
Math 102 Section # 4, 5, 8 (091)
Quiz 1(a)

Time: 20 minutes

Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. Using two rectangles and right end points, the estimated area under the graph of $f(x) = 4 - 2x$ from $x = 0$ to $x = 2$ is

- (a) $\sqrt{2}$
- (b) 0
- (c) 2
- (d) $2\sqrt{2}$
- (e) .6

2. By interpreting integral in terms of area, the value of $\int_{-1}^2 |x| dx$ is

- (a) $\frac{5}{2}$
- (b) 2π
- (c) 2
- (d) 1
- (e) 3

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Quiz 1(b)

Time: 20 minutes

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Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. The area by the rectangle method between the graph of $y = f(x) = x - 5$ and the interval $[0, 10]$ is equal to

- (a) 3
- (b) 1
- (c) $\frac{1}{2}$
- (d) 0
- (e) $\sqrt{5}$

2. For $F(x) = \int_2^x \sqrt{3t^2 + 1} dt$, $F''(2)$ is equal to

- (a) 5
- (b) $\frac{6}{\sqrt{13}}$
- (c) $\sqrt{2}$
- (d) 10.7
- (e) .5

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Quiz 1(c)

Time: 20 minutes

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1. Using right end points in rectangle method, the area under the curve $y = x^3$ over the interval $[2, 6]$ is

- (a) $\frac{5}{2}$
- (b) -2
- (c) 0
- (d) 1
- (e) 320

2. By interpreting integral in terms of area, the value of $\int_0^2 \sqrt{4 - x^2}$ is

- (a) 2
- (b) 5
- (c) π
- (d) 1
- (e) 2π

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Quiz 1(d)

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1. Using four rectangles and right end points, the estimated area under the graph of

$$f(x) = 1 + \frac{x^2}{4} \text{ from } x = -2 \text{ to } x = 6 \text{ is}$$

- (a) 40
- (b) 18
- (c) 24
- (d) 34
- (e) 36

2. $\int_0^{\pi/4} \sec^2 t \, dt =$

- (a) e^2
- (b) 2
- (c) 1.5
- (d) 1
- (e) π