Math 102

Quiz#4 (6.3&6.5)

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Name:

Serial No.:

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1. The region bounded by the parabolas $(y-3)^2 = x$ and $x = 4$ is rotating about an axis, find the **volume** of the resulted solid if the axis of rotation is the line

   $y = 1,$ (Just set up the integration formula)

2- Find the numbers b such that the average value of $f(x) = 2 + 6x - 3x^2$ on the interval $[0, b]$ is equal to 3.

Math 102

Quiz#5 (7.1-7.2)

10	

Name:

Serial No.:

1- Evaluate $\int_4^9 \frac{\ln x}{x}\ dx$

2- Find $\int\ \ e^{\cos x} \sin 2x\ \ dx$

3- Evaluate $\int_0^{\frac{\pi}{4}} \sec^4\theta \tan^4\theta\ \ d\theta$

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Quiz#6 (7.3-7.5)

10	

Name:

Serial No.:

1- Evaluate $\int_0^{\frac{\pi}{2}} \frac{\cos\theta}{\sqrt{1+\sin^2\theta}}\, d\theta$

2- $\int_3^4 \frac{x^3-2x^2-4}{x^3-2x^2}\, dx$

3- Find $\int \frac{1}{\sqrt{x+1}+\sqrt{x}}\, dx$