KFUPM – Department of Mathematics and Statistics – Term 131

MATH 102

QUIZ # 1 Code 1 (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

The limit $\lim_{n\to\infty}\sum_{i=1}^{n}\sin(3+\frac{i\pi}{2n})\frac{\pi}{2n}$ is equal to the definite integral:

a/ $\int_0^{\frac{\pi}{2}}\sin x dx$	
b/ $\int_0^{\frac{\pi}{2}}\sin(x+3)dx$	
c/ $\int_0^{\pi}\sin(x+3)dx$	
d/ $\int_{\frac{-\pi}{2}}^{\frac{\pi}{2}}\sin(x+3)dx$	
e/ $\int_{-\pi}^{\pi}\sin(x+3)dx$	

Exercise 2 (5 points)

If $g(x)=\int_{2x}^{3x}\sqrt{t+1}dt$, then $g'(1)$ is:

a/ 0	
b/ 1	
c/ 2	
d/ -1	
e/ 3	

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QUIZ # 1 Code 2 (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

The limit $\lim_{n\to\infty}\sum_{i=1}^{n}\sin(2+\frac{i\pi}{n})\frac{\pi}{n}$ is equal to the definite integral:

a/ $\int_0^{\frac{\pi}{2}}\sin x dx$	
b/ $\int_0^{\frac{\pi}{2}}\sin(x+2)dx$	
c/ $\int_0^{\pi}\sin(x+2)dx$	
d/ $\int_{\frac{-\pi}{2}}^{\frac{\pi}{2}}\sin(x+2)dx$	
e/ $\int_{-\pi}^{\pi}\sin(x+2)dx$	

Exercise 2 (5 points)

If $g(x)=\int_{2x}^{\sqrt{x}}(t^2+t)dt$, then $g'(1)$ is:

a/ -4	
b/ $\frac{11}{4}$	
c/ -11	
d/ 11	
e/ $\frac{-11}{2}$	