KFUPM – Department of Mathematics and Statistics – Term 132

MATH 102

QUIZ # 1 Code 1 (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

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

a/ $\sqrt{5}(3\sqrt{2}-2)$	
b/ $\sqrt{2}$	
c/ $3\sqrt{10}-\sqrt{5}$	
d/ 1	
e/ $\sqrt{10}-\sqrt{5}$	

Exercise 2 (5 points)

The value of the definite integral $\int_0^{\pi} \frac{(\cos x)e^{\sin x}}{1+e^{2\sin x}}\,dx$ is:

a/ 0	
b/ 1	
c/ $\frac{\pi}{4}$	
d/ -1	
e/ $\frac{-\pi}{4}3$	

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QUIZ # 1 Code 2 (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

The value of the definite integral $\int_0^{\ln 3} \frac{e^x}{1+e^x} dx$ is:

a/ $\ln 2$	
b/ $\ln 4$	
c/ $\ln 3$	
d/ 3	
e/ $e^3 - 1$	

Exercise 2 (5 points)

If $g(x) = \int_{\cos x}^{\sin x} \sqrt{1-t^2}\, dt$ for $x \in [0, \frac{\pi}{2}]$, then $g'(1)$ is:

a/ 1	
b/ 0	
c/ -1	
d/ $\frac{\pi}{2}$	
e/ $\frac{2}{\pi}$	