M161, Test 2, Fall 2009

Name:_____

Section:_____

Instructor:_____

Time: 75 minutes. You may not use calculators on this exam

Problem	Points	Score
1ab	26	
1c	13	
2	12	
3	13	
4	36	
$\sum$	100	

$\frac{d}{dx}\sin(x) = \cos(x)$, $\frac{d}{dx}\cos(x) = -\sin(x)$, $\frac{d}{dx}\tan(x) = \sec^2(x)$,

$\frac{d}{dx}\csc(x) = -\csc(x)\cot(x)$, $\frac{d}{dx}\sec(x) = \sec(x)\tan(x)$, $\frac{d}{dx}\cot(x) = -\csc^2(x)$,

$\frac{d}{dx}\arcsin(x) = \frac{1}{\sqrt{1-x^2}}$, $\frac{d}{dx}\arccos(x) = -\frac{1}{\sqrt{1-x^2}}$, $\frac{d}{dx}\arctan(x) = \frac{1}{1+x^2}$,

$\frac{d}{dx}\operatorname{arccsc}(x) = -\frac{1}{x\sqrt{x^2-1}}$, $\frac{d}{dx}\operatorname{arcsec}(x) = \frac{1}{x\sqrt{x^2-1}}$, $\frac{d}{dx}\operatorname{arccot}(x) = -\frac{1}{1+x^2}$

$\sin(2x) = 2\sin(x)\cos(x)$ $\int \ln x dx = x\ln x - x + C$ $\int \sec(x)dx = \ln|\sec(x)+\tan(x)| + C$

$\tan^2(x) + 1 = \sec^2(x)$ $\cos^2(x) = \frac{1+\cos(2x)}{2}$ $\sin^2(x) = \frac{1-\cos(2x)}{2}$

Multiple Choice Answer Block

A a b c d e

B a b c d e

C a b c d e

D a b c d e

E a b c d e

F a b c d e