

MATH 162 Sample Exam 1

Integrate		Name:	Score	
1.	$\int x^2 \cos 3x \, dx$		1	
			2	
			3	
			4	
			5	
			6	
			7	
			8	
		Ans:_____.		
2.	$\int \sin^2 3x \cos^2 3x \, dx$		9	
			10	
			Tot	
		Ans:_____.		
3.	a) $\int \frac{1}{\sqrt{16-x^2}} \, dx$	b) $\int \frac{x}{\sqrt{16-x^2}} \, dx$		
		Ans:_____.	Ans:_____.	
4.	$\int 4 \tan^3 x \, dx$			
		Ans:_____.		
5.	$\int x^3 e^{x^2} \, dx$ (First make a substitution and then integrate by parts.)			
		Ans:_____.		

Part II.		Name:
6.	$\int \sqrt{4-x^2} \, dx$	Ans:_____.
7.	$\int \frac{x+1}{(x+2)(x-1)} \, dx$	Ans:_____.
8.	$\int x^2 \ln x \, dx$	Ans:_____.
9.	$\int \frac{2}{x^2+2x+2} \, dx$	Ans:_____.
10	a) $\int_0^\infty x e^{-x} \, dx$	b) $\int_1^\infty \frac{1}{x^{5/2}} \, dx$
	Ans:_____.	Ans:_____.