

MATH 162 EXAM 1, Fall 2021

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: _____.

Ans: _____.