

MATH 162 EXAM 1, Spring 2009

Problems 1-8: Integrate.		Name:	Score	
1.	a) $\int e^{5x} dx$     Ans:_____.	b) $\int \tan 3x dx$ .     Ans:_____.	1	
			2	
			3	
			4	
			5	
			6	
2.	a) $\int x/\sqrt{9-x^2} dx$     Ans:_____.	b) $\int 1/\sqrt{9-x^2} dx$     Ans:_____.	7	
			8	
			Tot	
3.	$\int \sin^4 x \cos^3 x dx$			
				Ans:_____.
4.	$\int \tan^4 5x dx$			
				Ans:_____.
5.	$\int \frac{x^2}{\sqrt{4-x^2}} dx$			
				Ans:_____.

6. 
$$\int \frac{2x+1}{x(x^2+1)} dx$$

Ans: \_\_\_\_\_.

7. 
$$\int e^{3x} \cos 2x dx$$

Ans: \_\_\_\_\_.

8. 
$$\int_0^{\infty} x^2 e^{-5x} dx$$

Ans: \_\_\_\_\_.

9. (4 pts.) Write the form of the partial fraction decomposition of:

a)  $\frac{2x+3}{x^4-1}$

b)  $\frac{x+1}{(x+4)(x^2+9)^2}$

Extra space