

**Math 132, Symbolics Test**  
**Fall 2002**

Name: \_\_\_\_\_

Section: \_\_\_\_\_

ID number: \_\_\_\_\_

- No papers, notes or calculator may be used.
- Please don't just give an answer. Clearly explain how you get it.
- This is a 1hr 30min exam.

Problem	Grade
1	
2	
3	
4	
5	
6	
7	
8	
9	
Total (out of 90)	

1) [10 points] Evaluate

$$\int (e^{-5x} + \sin(3x)) dx$$

2) [10 points] Evaluate

$$\int \left( 2e^x + \frac{3}{\sqrt{1-x^2}} + \sec(x) \tan(x) \right) dx$$

3) [10 points] Evaluate

$$\int \frac{\sqrt{x} + x^2 + 1}{x} dx$$

4) [10 points] Evaluate

$$\int \sin^2(x) \cos^3(x) dx$$

5) [10 points] Evaluate

$$\int x^4 \ln(x) dx$$

6) [10 points] Evaluate

$$\int \frac{(\sqrt{x} + 4)^5}{\sqrt{x}} dx$$

7) [10 points] Evaluate

$$\int x^2 e^x dx$$



8) [10 points] Evaluate

$$\int x^3 \sqrt{x^2 + 1} dx$$

9) Evaluate

$$\int x (\sin^2(x^2)) dx$$