Math 116   **Test 9 (Quiz)**   Satya Mandal

Fall 07   Maximum Points 15   April 26, 2007

1. Find the derivative of the function $f(x) = x^2 \cos 2x$

   Answer: $f'(x) =$

2. Find the derivative of the function $f(x) = \sin \sqrt{x+1}$

   Answer: $f'(x) =$

3. Find the derivative of the function $f(x) = \frac{\cos x}{x^2+1}$

   Answer: $f'(x) =$

4. Find the derivative of the function $f(x) = x^3 \cos x$

   Answer: $f'(x) =$

5. Find the derivative of the function $f(x) = \sqrt{\cos x + \sin x}$

   Answer: $f'(x) =$

6. Find the integral $\int \sin(7x)dx$

   Answer:

7. Find the integral $\int \sin^3 x \cos x dx$

   Answer:

8. Find the integral $\int_0^\pi (2\cos 2x + 3\sin 2x)dx$

   Answer:

9. Find $\int_0^{\pi/2} \frac{\cos x}{1+\sin x}dx$.

   Answer:

10. $\int_1^{e^\pi} \frac{\sin(\ln x)}{x}dx$.

    Answer: