

## Calc 2 - Test #1-B

WINTER 1989

Pat Rossi

Name \_\_\_\_\_

### Practice Test 1B

**Instructions.** Answers follow this section. Solutions follow the Answer section.

1.  $\int (3x^5 - 2x^3 - 2) dx =$

2.  $\int \left( 3 \csc^2(x) + \sec(x) \tan(x) - \frac{1}{2} \sin(x) \right) dx =$

3.  $\int \frac{4x^2}{(4x^3+6)^{\frac{3}{2}}} dx =$

4.  $\frac{d}{dx} [\cos(\tan(4x))] =$

5.  $\frac{d}{dx} [\sec^3(4x^2)] =$

6.  $\int \cot\left(\frac{x}{3}\right) \csc\left(\frac{x}{3}\right) dx =$

7. Suppose  $E(x)$  is a function having the property that  $E'(x) = [E(x)]^2$ . Compute  $\frac{d}{dx} [E(x^4 - 3x)] =$

8.  $\int \frac{\sec^2(x)}{\sqrt{\tan^3(x)}} dx =$

9.  $\int \sec(\sin(x)) \tan(\sin(x)) \cos(x) dx =$