

## Calculus II - Quiz 3

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

Box # \_\_\_\_\_

1. Compute the following definite integrals, show the steps.

$$\int_{-1}^2 \frac{2x^2 - x^3}{5} dx =$$

- 2.

$$\int_{-\pi/2}^{\pi/2} 4 \cos(t) - 3 \sin(2t) dt =$$

- 3.

$$\int_0^T \frac{e^{ax} + e^{-ax}}{2} dx =$$

4.

$$\int_5^{10} \frac{2dy}{y} =$$

5. A particle is moving along the real line with a velocity of  $v(t) = 2 - 5t$  cm/sec starting a  $t = 2$ . Write down an **definite integral** expression for the displacement of the particle in the next 3 seconds. What is the displacement.