

Name:

# Math 2

## Fundamental Theorem of Calculus Worksheet

1. Find the derivative of  $g(x) = \int_1^x \cos(t) dt$ .

2. Find the derivative of  $g(x) = \int_1^{x^2} \cos(t) dt$ .

3. Find the derivative of  $g(x) = \int_s^{\tan(x)} e^t dt$ .

4. Evaluate the integral  $\int_0^1 \frac{3}{1+x^2} dx$ .

5. Evaluate the integral  $\int_2^3 (e^{3x} - \frac{2}{x}) dx$ .