

## QUIZ 9

Name \_\_\_\_\_

1. Find each of the following

(a)  $\int 39e^{39x} dx$

(b)  $\int 3x^2 - x^3 + \frac{1}{x} dx$

(c) The rate of change of the gender ratio for the United States during the twentieth century can be modeled as  $g(t) = 0.01t^2 - 1.4t - 10.3$  males per 10,000 females per year  $t$  years after 1900. In 1970 the ratio was 9480 males per 10,000 females. Find the specific antiderivative giving the gender ratio.