

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

Math 211 Quiz 10

Section: 302       303

Apr 18, 2012

1. Find the indicated integral.

a.  $\int 1 dx$    b.  $\int \frac{1}{x^2} dx$    c.  $\int \sqrt{x} dx$    d.  $\int \frac{2}{\sqrt{x}} dx$    e.  $\int e^{2x} dx$    f.  $\int \frac{2}{x} dx$

2. Find the indicated integral.

a.  $\int \frac{x^2 + 2x + 1}{x^2} dx$    b.  $\int \sqrt{t}(t^2 - 1) dt$    c.  $\int (e^t + 1)^2 dt$    d.  $\int \ln(e^{-x^2}) dx$

3. Solve the given initial value problem for  $y = f(x)$ .

$$\frac{dy}{dx} = \frac{2}{x} - \frac{1}{x^2}, y(-1) = 1$$