

### Test 3

### MTH 251

1.  $\int \sec^3 x dx =$

2.  $\int_0^1 \ln(1 + x^2) dx =$

$$3. \int \frac{dx}{x^2 \sqrt{16-x^2}} =$$

$$4. \int \frac{2x-3}{x^3-3x^2+2x} dx =$$

$$\frac{dx}{(x^2 + 2x)^{\frac{1}{2}}}$$

**6.**  $\int x^2 \sqrt{x-1}$

7.  $\int \cos^4 x dx$

8.

$$\frac{\sqrt{x^2 - 4}}{x} dx$$