

**East Los Angeles College**  
**Department of Mathematics**  
Math 227  
Test2 Take Home Portion

Integrate the following.

1.  $\int \frac{1}{\sqrt{x^2+2x+5}} dx$

$$2. \int \frac{\sec^6(x)}{\tan^2(x)} dx$$

3.  $\int \tan^5(x)\sec^3(x)dx$

$$4. \int \frac{3x^3 - x^2 + 6x - 4}{(x^2 + 1)(x^2 + 2)} dx$$

$$5. \int \frac{x}{(x+1)^2} dx$$

6.  $\int \sin(x)e^{\cos(x)} dx$

7.  $\int \sin(2x)\cos(x) dx$

8.  $\int \cos(5x) \sin(3x) dx$