Math 1151 Test 3 Friday, 16, 2001.

Professor Peter A. Rejto

Name (Print): _____ Student ID number: _____
Section number: _____ Name of TA: _____
Signature: _____

7 pages. Show all work. No work no credit. No books/notes. Calculators: Scientific calculator are allowed. However, graphing calculators are not allowed. More specificaly, calculators that display two or more lines are not allowed.

Name (Print): _____ Student ID number: _____

1. (25 pts.) Find the approximate area of the triangle whose sides are, $a = 9, b = 7, c = 10$. Round your answers to two decimal places.

Name (Print): _____ Student ID number: _____

2. (25 pts.) Find at least two different polar coordinates for the point whose rectangular coordinates are $(1, -1)$.

Name (Print): _____ Student ID number:_____

3. (25 pts.) Let the complex number z be given by $z = 1 - i$. Find the polar form of z^5. That is to say, find (r, θ) such that

$$z^5 = r(\cos\theta + i\sin\theta).$$

Name (Print): _____ Student ID number:_____

4. (25 pts.) Find the roots of the quadratic equation,

$$x^2 + x + 1 = 0.$$

Name (Print): _____ Student ID number:_____

5. (25 pts.) Find all three roots of the cubic equation,

$$2x^3 + 11x^2 - 7x - 6 = 0.$$

Name (Print): _____ Student ID number:_____

6. (25 pts.) Write the equation,

$$r = \frac{2}{1 - \cos\theta}$$

in rectangular coordinates.