Math 160   Quiz 9   Name: _____

August 1, 2002

This quiz is worth 10 points. Show all work for credit.

1. A line goes through the point$(4, 6)$ and makes a $30°$ angle (counterclockwise) with the x-axis. Find the equation of the line.

2. In a circle of radius $1,000$, what is the central angle of a chord of length 10?

3. A 16 foot ladder is leaned against a house with the base 5 feet from the house. What angle does it make with the ground?

4. A worker intends to lay out a horizontal line 5 feet wide on a room's wall by measuring 4 feet up from the level floor at two points five feet apart and marking the two endpoints on the wall. For the left end, the worker's tape measure was plumb to the floor and it was at a true 4 feet. On the right end, the tape was one quarter inch off plumb, but it was still measured at a true 4 foot. How much lower will that side of the line be then it should be?

5. Find the area of a triangle that has sides 13, 13, and 6.