## Math 120 C, E

## Quiz 1

October 7, 2004
Show all work for full credit.

1. (5 points) A chicken starts running eastward from a point 30 meters due west of a telephone pole. The chicken runs at 4.1 meters per second. At the same instant, a gopher starts from a point 40 meters north of the pole, heading south at 3.8 meters per second. After how much time will the distance between the chicken and gopher be 20 meters?
2. (5 points) Write the equation of the circle with center $(2,-3)$ that passes through the point $(12,5)$.
