

Name : _____

Quiz 3: 2/07/06

DIRECTIONS: Clearly mark all your answers. Do not use calculators. **Show all work!** There is a total of 20 possible points on this quiz.

1. (5 points) Find the center and radius of the circle with the given equation, then sketch a graph:

$$x^2 + y^2 + 4x + 10y + 15 = 0$$

2. (5 points) Question [yes or no]: Is there a line that goes through (-1,-2) and (3,4) that is also parallel to $y=2x-5$? [Full work shown for any credit]

3. (5 points) Let $f(x)=7-4x$. Find $\frac{f(1+h) - f(1)}{h}$

4. (5 points) Graph, as well as find the x-intercept (if any), y-intercept, and vertex:

$$f(x) = -x^2 + 2x + 8$$