Math 16A (Summer 2010)
Kouba
Quiz 1

PRINT Name : ____________________________________________

Exam ID #: _________
1.) (10 pts.) Determine the x- and y-intercepts for \( y = x^2 - 4x \). Then sketch the graph of this equation using appropriate labeling of your diagram.

2.) (10 pts.) Determine the center and radius of the circle given by: \( x^2 + y^2 + 2y = 2x + 7 \)

3.) (10 pts.) Find an equation of the line in slope/intercept form \( (y = mx + b) \) passing through the point \((2, -3)\) and which is parallel to the line \( x + 2y = 4 \).
4.) (10 pts.) Let \( f(x) = \frac{2 - x}{x + 3} \) and \( g(x) = \frac{1}{x} \). Find and simplify the functional composition \( f(g(x)) \).

5.) a.) (5 pts.) Determine the domain of \( f(x) = \sqrt{7 - 3x} \).

   b.) (5 pts.) Determine the range of \( f(x) = 5 + 3 \cos x \).