

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  $f(x) = 5 + 3 \cos x$ .