

Math 16A (Summer 2008)
Kouba
Quiz 1

PRINT Name : -----

Exam ID # : -----

1.) (10 pts.) Determine the x- and y-intercepts for $y = 4 - x^2$. 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 : $x^2 - 4x + y^2 + 10y = 7$

3.) (10 pts.) Find an equation of the line in slope/intercept form ($y = mx + b$) passing through the point $(-1, 3)$ and which is perpendicular to the line $y = (1/2)x + 4$.

4.) (10 pts.) Let $f(x) = \frac{x}{x+3}$ and $g(x) = \frac{1}{x-2}$. Find and simplify the functional composition $f(g(x))$.

5.) (5 pts. each) Consider the function $f(x) = \sqrt{x^2 - 3x}$.

a.) Use a sign chart to determine the domain of f .

b.) Determine the range of f .