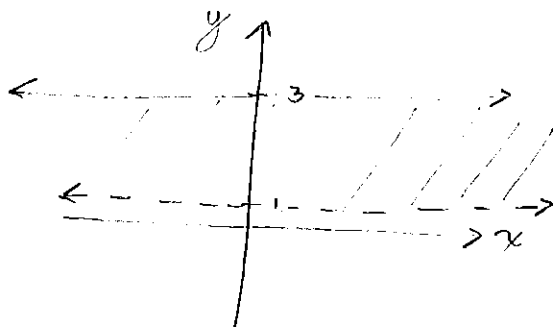


**Support for College Algebra**  
**University of North Georgia**  
**Fall 2015**  
**Quiz #3**

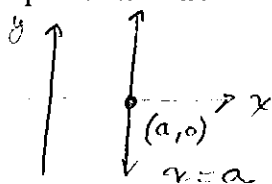
Name: Key Date: September 25, 2015

Show ALL work!

1. Graph  $S = \{(x, y) | 1 < y \leq 3\}$



2. What is the graph of the equation  $x = a$ ?



a Vertical Line

3. Does the following equation represent a function:  $x^2 + (y + 2)^2 = 8$ ? Support your answer with an explanation for full credit.

Solve for y

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

$$y + 2 = \pm \sqrt{8 - x^2}$$

$$y = -2 \pm \sqrt{8 - x^2}$$

not a function,  
 because x is not  
 paired with exactly  
 one y & because  
 when graphed it is  
 a circle failing  
 the Vertical  
 Line Test.

4. What is the  $x$ -intercept(s) of the following function:  $f(x) = \sqrt{x-2}$

$$x - 2 \geq 0$$

$$x \geq 2$$

$x$ -intercept:  $(2, 0)$