

Homework #1

Due at 2.30pm on Thursday 8/30/2012 in class

Directions: Answer these questions completely showing all work and writing very neatly.

1. The graph of $9x^2 - 54x + 4y^2 + 16y + 61 = 0$ is
 - A. a circle with radius 6
 - B. a hyperbola centered at (2,3)
 - C. a hyperbola centered at (3,-2)
 - D. an ellipse centered at (2,3)
 - E. an ellipse centered at (3,-2)

2. What is the solution set for the inequality $x + 1 \leq \frac{6}{x}$?
 - A. $(-\infty, -3] \cup (0, 2]$
 - B. $[-3, 0] \cup (2, \infty]$
 - C. $(0, 2]$
 - D. $[-3, 2]$
 - E. $(-\infty, -3]$