

Lines, Angles, & Area Warm-up

September 9, 2008

Name _____

An enclosed region is formed by graphing the lines with equations

$$x + y = 4$$

$$x - y = 4$$

$$x + y = -4$$

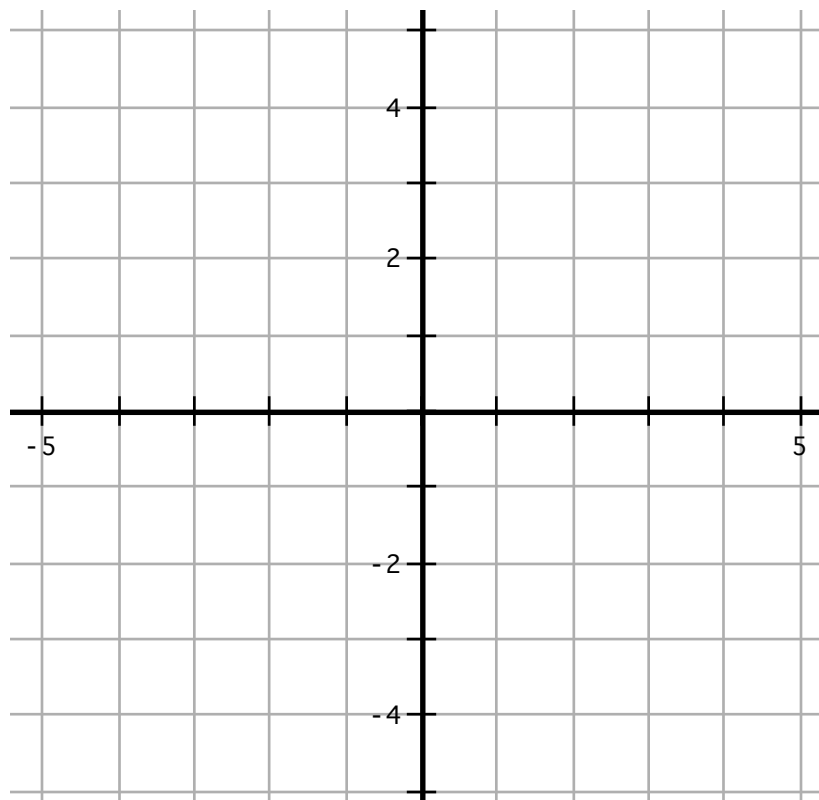
$$x - y = -4$$

a. Graph the four lines. **USE A STRAIGHT EDGE TO DRAW YOUR LINES.**

b. Determine the shape formed by the four lines.

c. Label on your graph the x and y coordinates of the four corners of the figure (**also know as vertices**).

d. Calculate the area of the enclosed region in **3 DIFFERENT WAYS**.



Two vertical lines are drawn, one on the left and one on the right, extending from the top of the page to the bottom of the page. These lines are intended for students to write their answers to parts b, c, and d.

e. Use a protractor to measure the four angles of the figure. Do your measurements agree with what you would expect based on the shape you recognized in part b?

f. Use a ruler to check how long each side of the figure is. Do your measurements agree with what you calculated in part d?