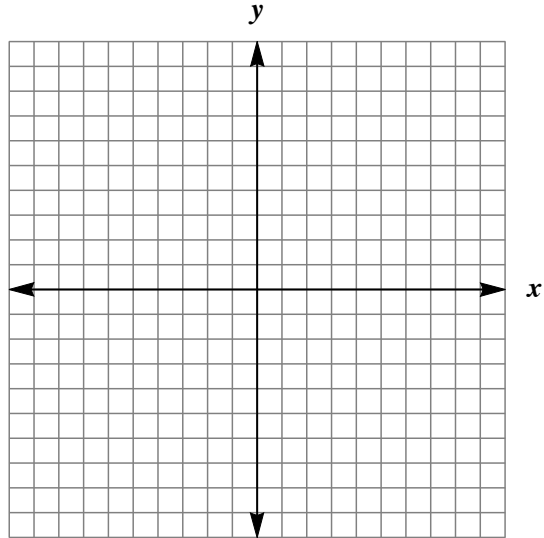


# Quiz 1: Practice Version 2

First & Last Name: \_\_\_\_\_ Class: \_\_\_\_\_

1. Sketch the following piecewise function:

$$f(x) = \begin{cases} -2x - 4 & x < 1 \\ x + 2 & x \geq 1 \end{cases}$$



2. For the following function,

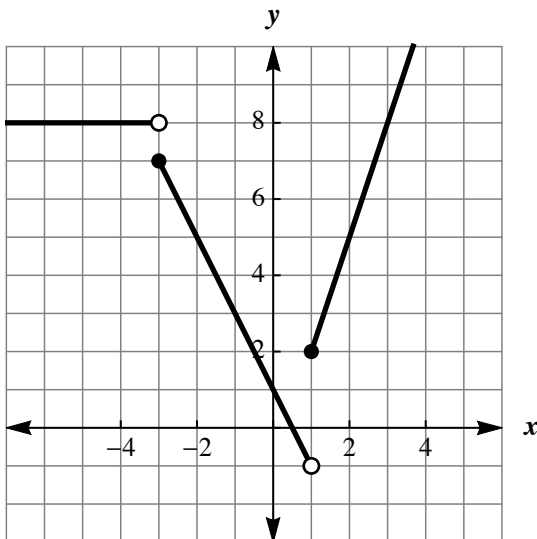
$$f(x) = \begin{cases} 2x + 7 & x \leq -4 \\ -3x - 1 & x > -4 \end{cases}$$

evaluate **a.**  $f(-6) =$

**b.**  $f(-4) =$

**c.**  $f(4) =$

3. Write the equation for the following graph:



Continued...

## Challenge Options (required for Honors)

4. Convert  $(-2, -5)$  into polar coordinates. Show your work.
5. Convert  $(225^\circ, 10)$  into rectangular (Cartesian) coordinates. Show your work.
6. Write an example of a polynomial function with at least five terms, even degree, and positive leading coefficient. Explain its end behavior.
7. Write an example of a polynomial function with four terms, a zero constant term, odd degree greater than 5, and negative leading coefficient. Explain its end behavior.