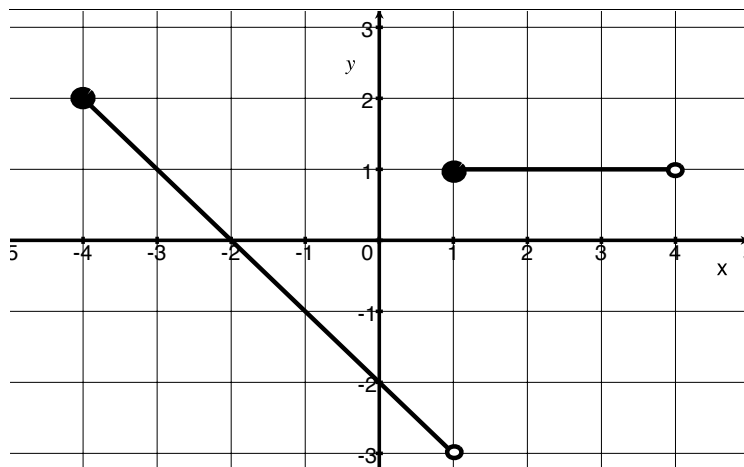# Quiz 1

Show *all* your work. No credit is given without reasonable supporting work. There are *two* sides to this quiz.

1. Let f be the graph below and to the right.
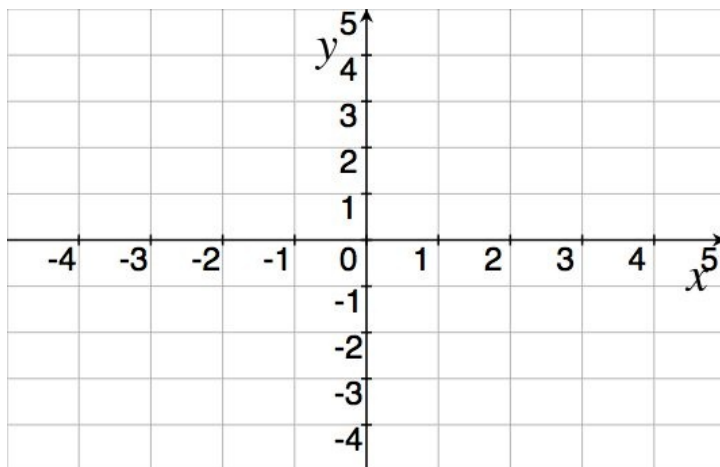
   (a) [1] (§1.3 #56) Find $f(2)$

   (b) [1] (§1.3 #56) Find $f(-3)$

   (c) [1] (WebHW3 #6) What are the x-intercepts?

2. [2] (GraphWks #4 & WebHW3 #19) Plot two points that are on the graph of

$$g(x) = \begin{cases} 1 & \text{if } x < 2 \\ 3x & \text{if } 2 \le x \end{cases}$$

3. [2] (WebHW2 #10) Simplify $\dfrac{\frac{3}{a}}{\frac{2}{a^2}}$

4. [3] (FractionWks#2) You have 8 oz of mocha that is 25% espresso sitting in a 16 oz cup. Write a rational expression in x whose values give the percentage (in decimal form) or espresso in the cup when x oz of espresso are added to it.