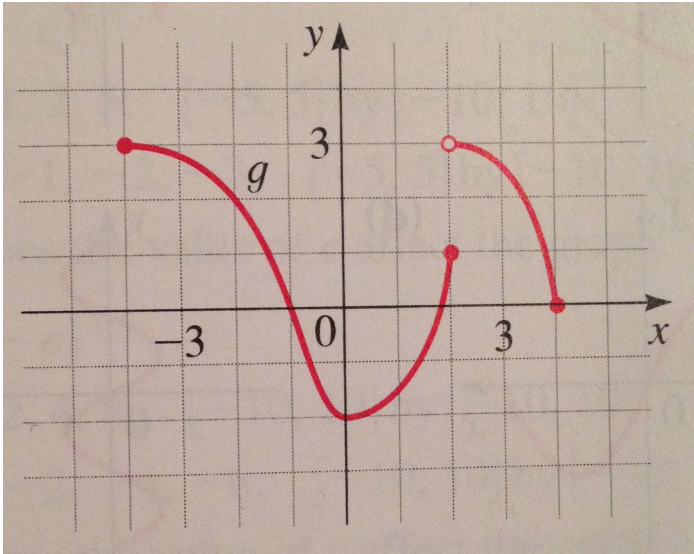# Homework 2 June 20 , 2016
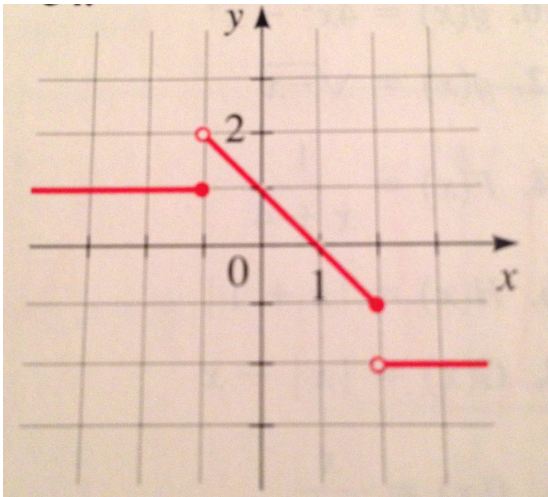
1. Consider the graph of a function g given below:
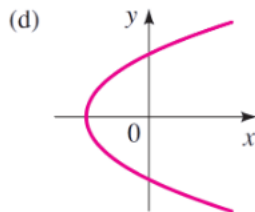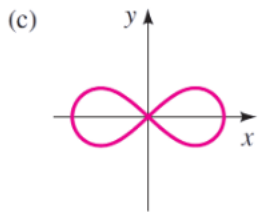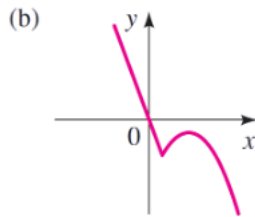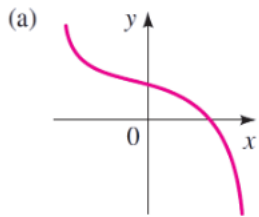

    a. Find $g(-4), g(-2), g(0), g(2)$ and $g(4)$.

    b. Find the domain and range of g.

2. Sketch the graph of $G(x) = |x + 1|$ and $g(x) = x^3 - 8$ by making a table of values.

3. The graph of a piecewise defined function is given below. Find a formula for the function.

$$f(x) = \begin{cases} & \text{if} \quad x \\ & \text{if} \quad x \\ & \text{if} \quad x \end{cases}$$

Which of the following are graphs of functions?

(a)

(b)

(c)

(d)

4.

5. The domestic postage rate for first-class letters weighing 12 oz or less is 37 cents for the first ounce (or less), plust 23 cents for each additional ounce (or part of an ounce). Express the postage P as a function of the weight x of a letter, with $0 < x \leq 12$, and sketch the graph of the function.