

## MTH 65 – Graded Homework 4

Due: 2:30 pm, January 19, 2011

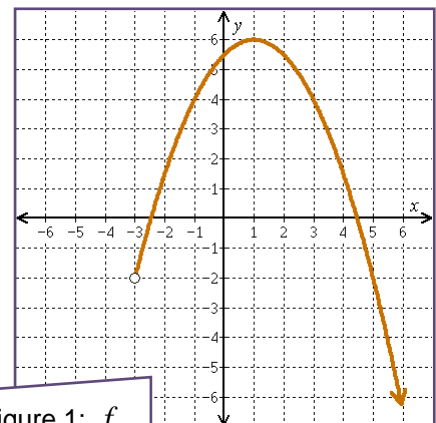
Name \_\_\_\_\_

You may work on this assignment with your classmates or anybody else you please. You may get help from a tutor or even the instructor. What you may not do is simply copy somebody else's work – that completely obviates the purpose of the assignment. If you forget to complete the assignment before it is due, do not simply copy someone else's paper and turn that in ... that is not "working together," that is taking credit for somebody else's work.

**Problem 3**

Consider the function  $f$  shown in Figure 1. Answer each of the following questions in regards to this function. To earn full credit your work must be presented in the manner discussed and illustrated during lecture. (10 points total)

- a. State the domain and range of  $f$ .
- b. State the values of  $f(3)$  and  $f(-5)$ .
- c. For what value(s) of  $x$  does  $f(x) = -2$ ?

Figure 1:  $f$

**Problem 2**

The opposite angles in a parallelogram have equal measure and the four angles' degree measurements always sum to  $360^\circ$ . For a certain parallelogram the smaller angle's measure is  $93^\circ$  less than twice the measure of the larger angle. Find the measurement of each angle.



**Problem 3**

Solve  $\begin{cases} \frac{9}{4}x + y = -\frac{1}{2} \\ -\frac{2}{3}x + \frac{2}{3}y = \frac{23}{9} \end{cases}$  using the *addition (elimination) method*.