ACMAT100 Spring 2026
Professor Manguba-Glover
Section 2.6-3.2 Homework (HW 6)   Name: _____
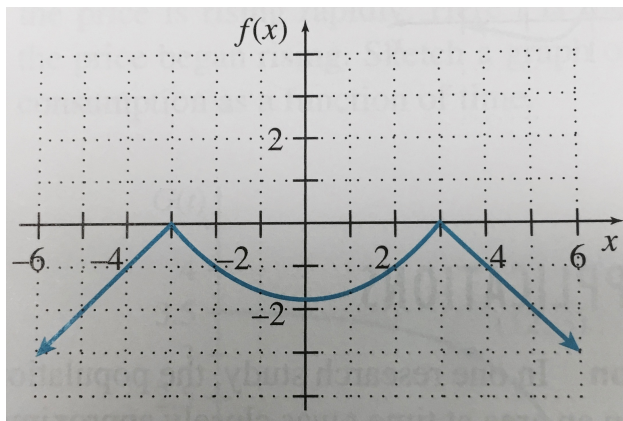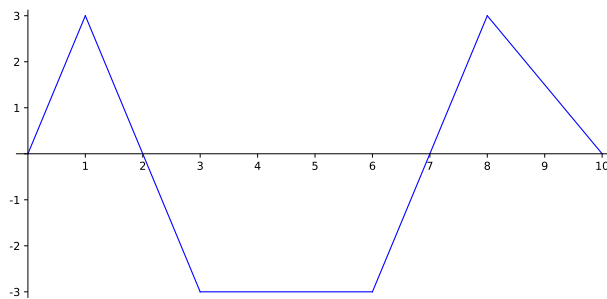
Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

Due next class. Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

(1) Solve and write your answer in interval notation: $|3x - 8| > 5$

(2) Solve and write your answer in interval notation: $|2x - 7| \le 9$

(3) Graph $f(x) = 4 - x$ by hand by plotting points to determine the shape of the graph

(4) Graph $f(x) = |x - 1|$ by hand by plotting points to determine the shape of the graph
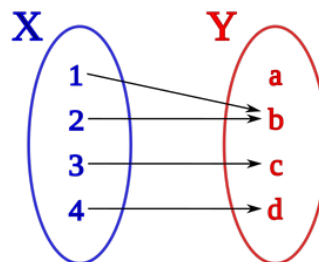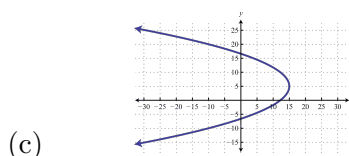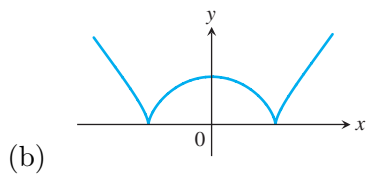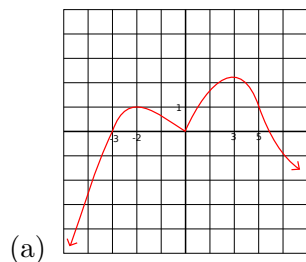
(5) Find the domain and range of the following graph:

(6) Use the following graph and answer the questions below:

    (a) What is $f(2)$? $f(5)$?

    (b) For what x-value(s) is $f(x) = 3$? $f(x) = 0$?

(7) Which of the following are functions?

(a)

(b)

(c)

(d)

(8) Give the domain and range of the following and then determine if each relation is a function or not:

(a) $S = \{(-3,7),(-1,7),(3,9),(6,7),(10,0)\}$

(b) $S = \{(1,2),(-1,3),(2,5),(-1,7)\}$

(c)

x	1	2	3
y	1	1	1

(d)

x	4	5	3	4
y	1	2	3	4

(9) If $f(x) = -2x^2 + 7x - 11$, find $f(2)$ and $f(3x)$

(10) If $f(x) = -3|x - 7| + 2$, find $f(2)$ and $f(-5)$