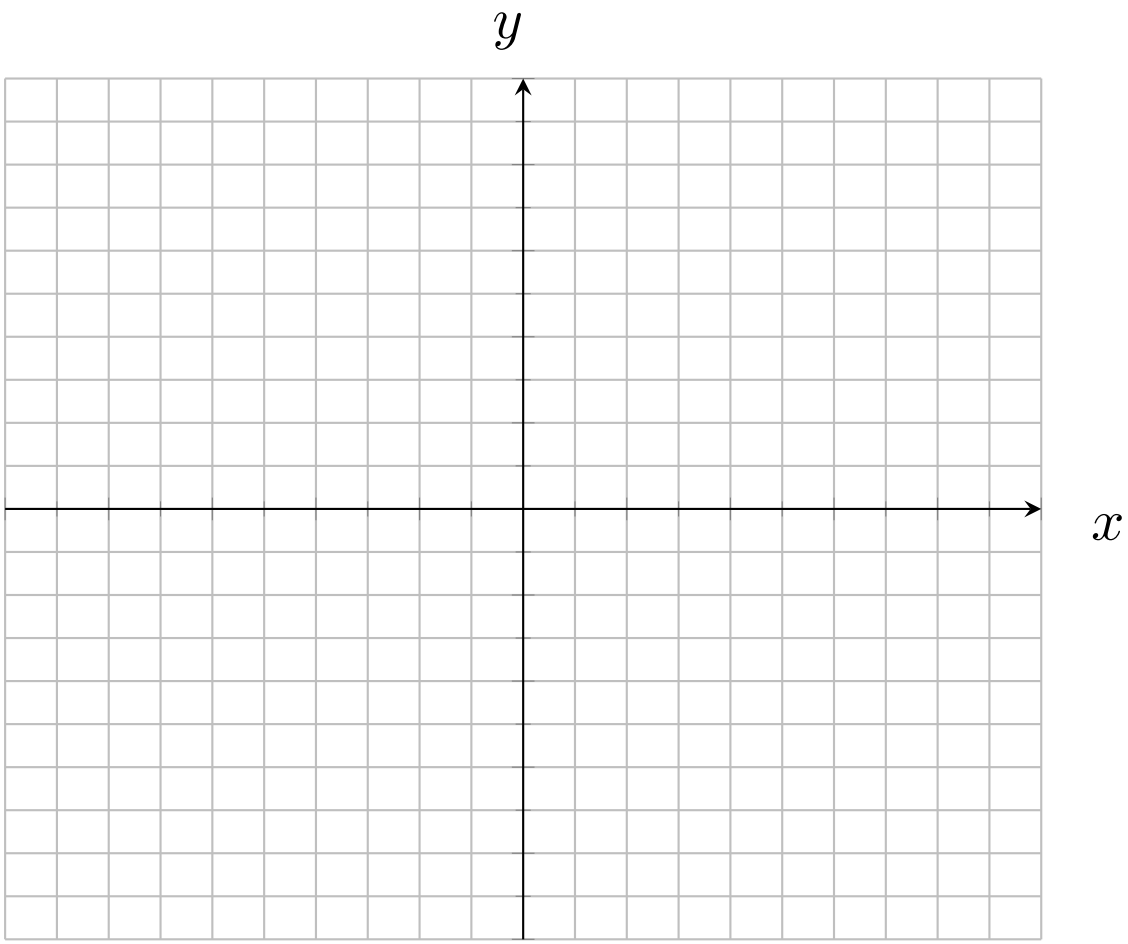
ACMAT100 Fall 2023
Professor Manguba-Glover
Classwork/Homework 6

Name: _____

Complete as many of the following problems as you can with your table. If your entire table finishes early, you may leave early or work on other work.

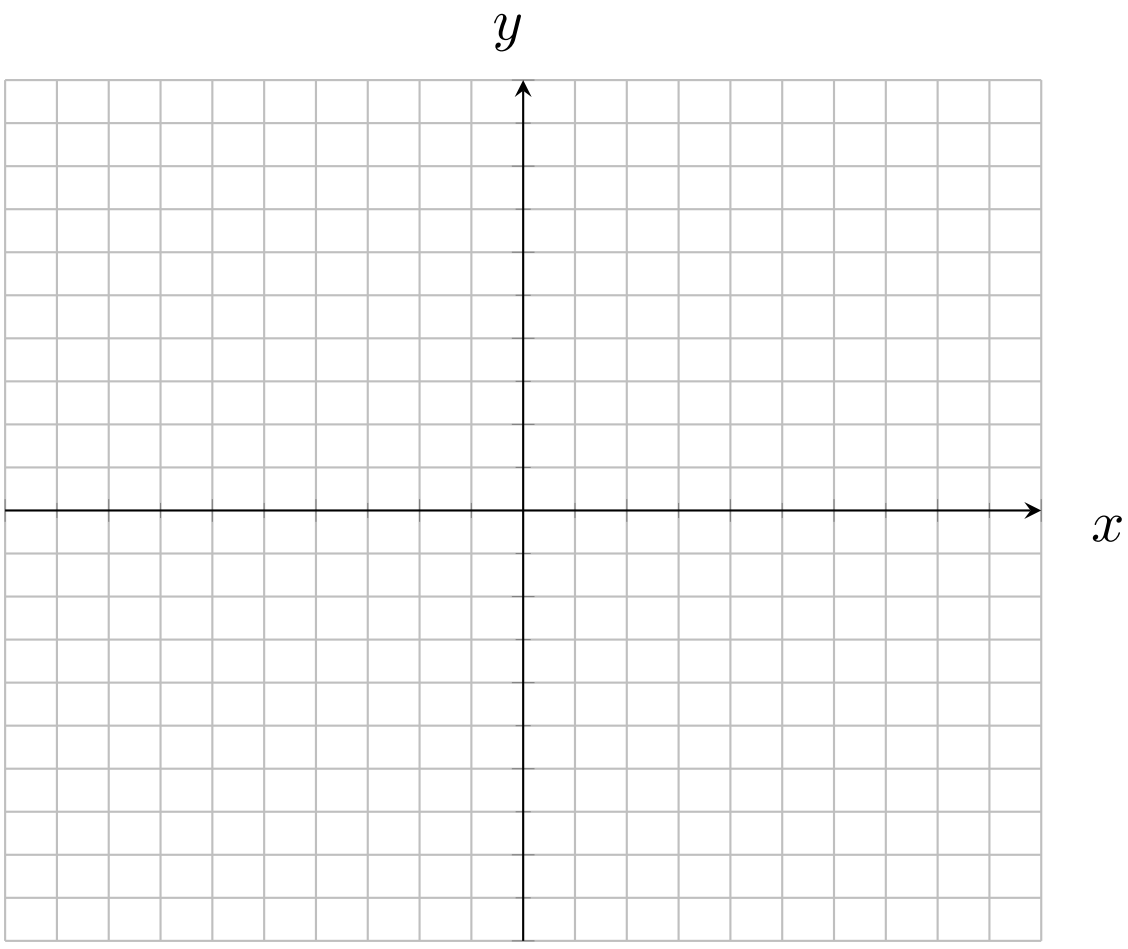
Unlike other classwork, your homework for today is to finish this and turn it in. Recommended deadline: next class. Actual deadline: Unit 2 Exam.

(1) Plot the ordered pairs $(-9, 2)$, $(-1, -3)$, $(1, 3)$, and $(2, -4)$ on the rectangular coordinate plane. Label your points and indicate which quadrant each point is in.



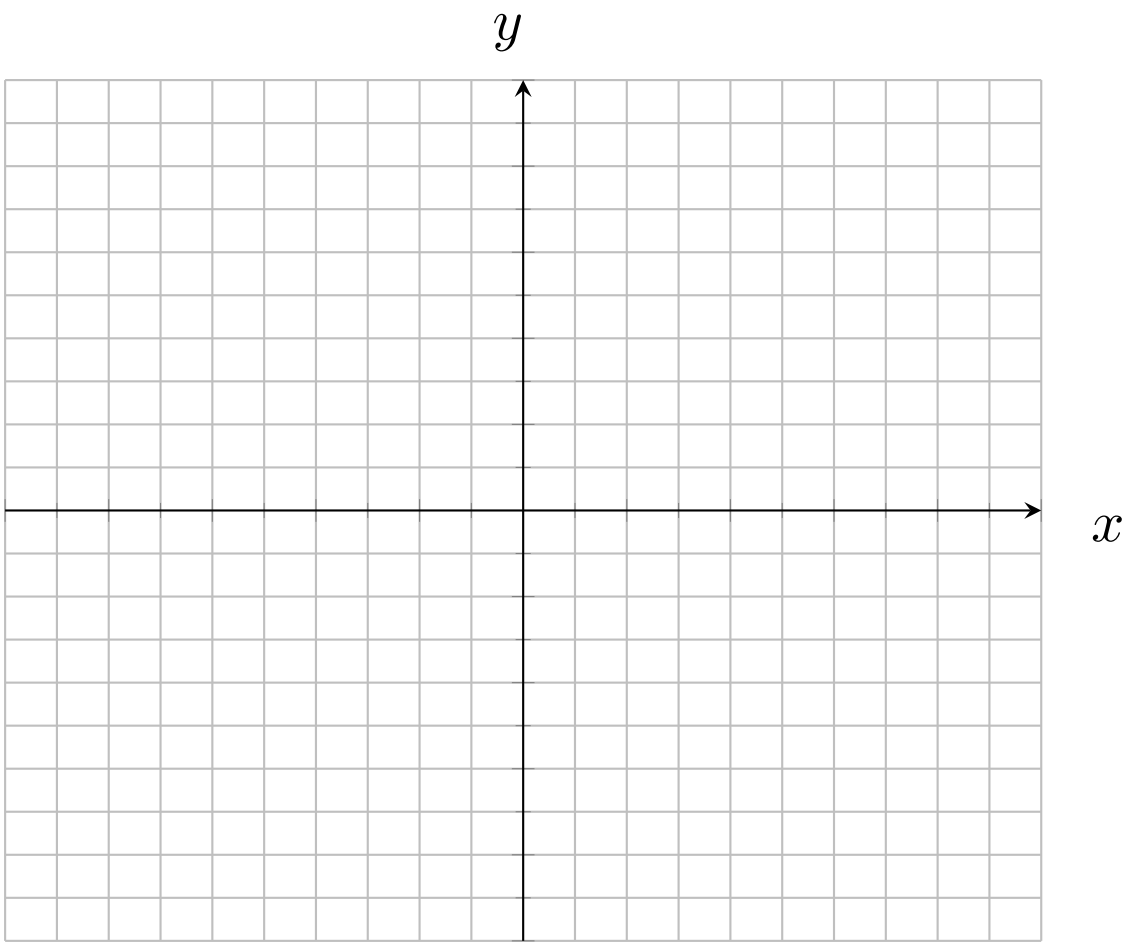
(2) Find the following values, then graph the equation $y = x - 5$.

x	y
-3	
-2	
-1	
0	
1	
2	
3	



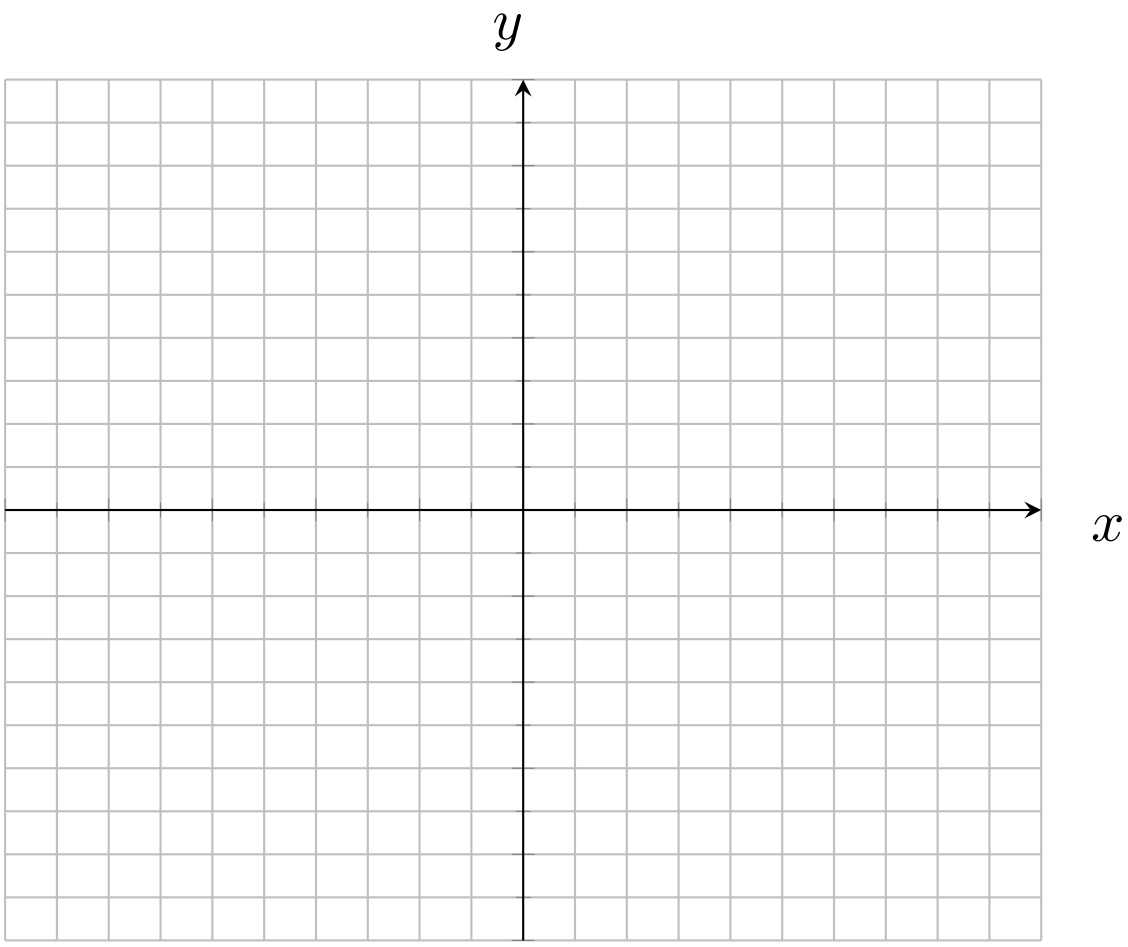
(3) Find the following values, then try to sketch the graph of the equation $y = 5 - x^2$.

x	y
-3	
-2	
-1	
0	
1	
2	
3	



(4) Find the following values, then sketch the graph of the equation $y = -\frac{4}{3}x$

x	y
-9	
-6	
-3	
0	
3	
6	
9	



(5) Determine whether the given ordered pair is a solution to the given equation:

(a) $(-3, 6)$; $y = -\frac{2}{3}x + 4$

(b) $(1, 3)$; $2x + 3y = 6$

(c) $(1, -5)$; $y = x^2 + x - 7$

(d) $(8, 5)$; $y = \frac{5}{x - 7}$

(6) If $f(x) = 8x + 6$, find the following

(a) $f(7)$

(b) $f(x + 4)$

(c) $f(-x)$

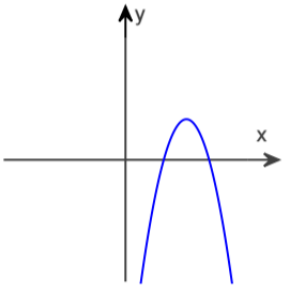
(7) If $f(x) = -4x^2 + 3x - 2$, find the following

(a) $f(2)$

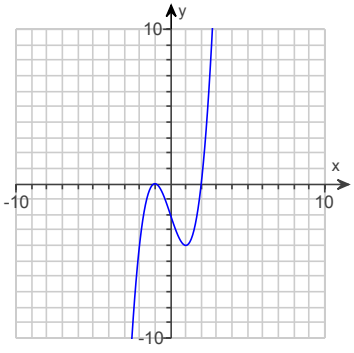
(b) $f(-1)$

(8) Use the vertical line test to determine if y is a function of x in the graph.

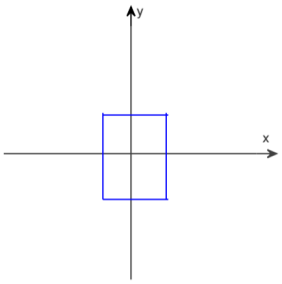
(a)



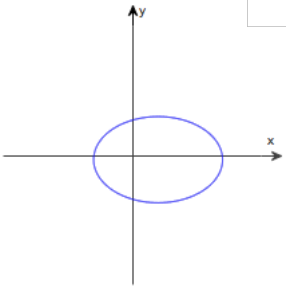
(b)



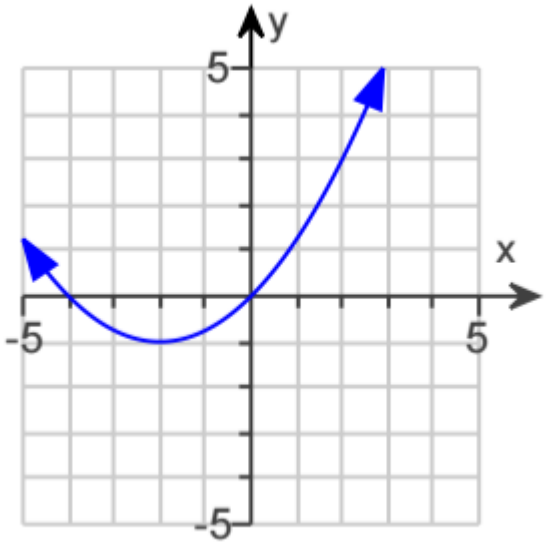
(c)



(d)



(9) Consider the following graph.



(a) Is this a function?

(b) Determine the domain and range.

(c) What is $f(2)$ and $f(-2)$?