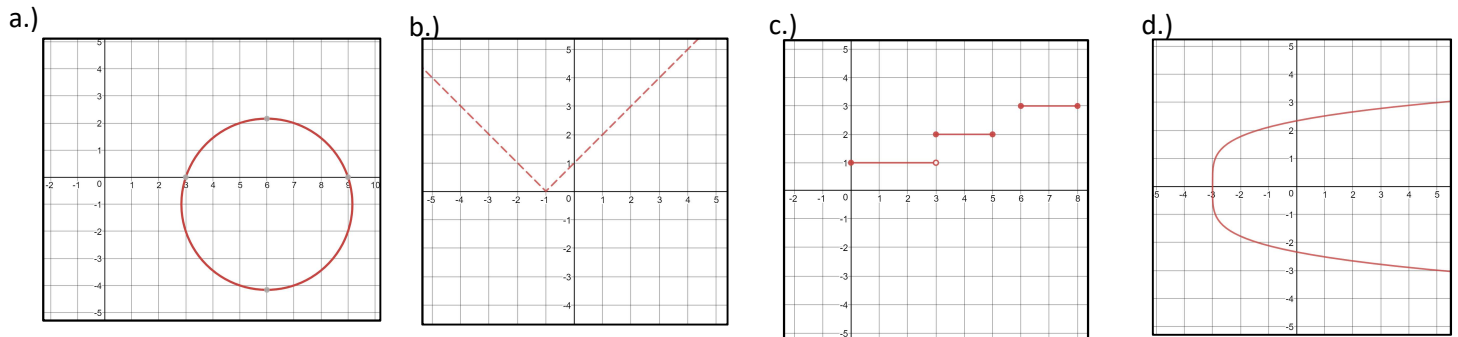


## Chapter 2 Study Guide

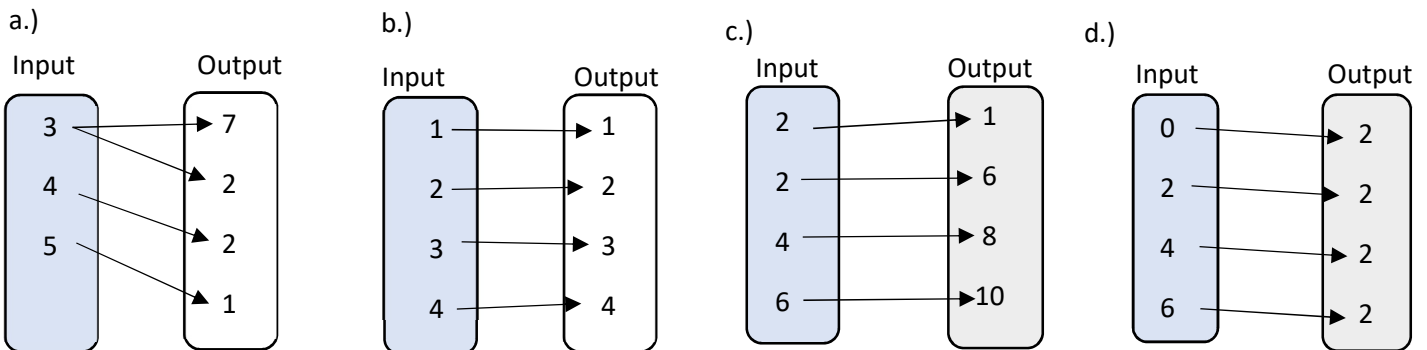
**DO NOT WRITE ON THIS TEST DOCUMENT.** This week we will take our quiz on Chapter 2. This is your final study guide to ensure you are ready for the quiz. All answers should be put in your notebook as the final assignment due for the marking period.

**Learning Target 1: Identify and Evaluate Functions (2-1 Pg. 60)**

- 1.) Given the function  $f(x) = 5x + 7$ , find  $f(1)$
- 2.) Given the function  $f(n) = n^2 + 3n + 7$ , find  $f(4)$
- 3.) Which of the Relations below is a function?



- 4.) Which of the Relations below is a function?



**Learning Target 3: Write the equations of lines (2-3 Pg. 74)**

- 5.) What is the slope and y-intercept for each of the equations
  - a)  $y = 3x + 10$
  - b)  $y = -2x + 8$
  - c)  $y = \frac{1}{2}x - 4$
  - d)  $y = x + 9$
- 6.) What is the slope of the line that passes through the points:
  - a) (2, 3) and (4, 5)
  - b) (-4, 6) and (2, -2)
  - c) (-4, 2) and (-3, 5)

7.) Write the equation for the line for an equation with a slope and y-intercept listed for each

- a.) Slope of 2, y-intercept of 5      b.) slope of  $\frac{2}{3}$  and y-intercept of 1      c.) slope of -6 and y-intercept of -4

8.) Give the function that fits the table.

a.)

Input	Output
0	2
1	6
2	10
3	16

b.)

Input	Output
-1	3
0	5
1	7
2	9

**Learning Target 2: Graph linear Equations (2-3 Pg. 74)**

9.) Graph the line for each equation:

a.)  $y = 2x + 5$

b.)  $y = -3x + 4$

c.)  $y = \frac{3}{4}x - 4$

10.) Write the equation in slope-intercept form:

a.)  $2x + 3y = 12$

b.)  $-4x + 6y = 24$

c.)  $5x + 7y = 21$

**Learning Target 4: Write an equation of a line given its slope and a point on the line (2-4 Pg. 81)**

11.) Give the equation for the line:

a.) That passes through (3,1) and is parallel to line  $y = 4x - 2$

b.) That passes through (-2, 7) and is perpendicular to the line  $y = 3x + 4$

12.) Write the equation of the line in point-slope format:

a.) contains the points (-4,2) and (-3,5)

b.) contains the points (0,0) and (-4, -5)