

# Unit 3 Practice Assessment

Name: \_\_\_\_\_

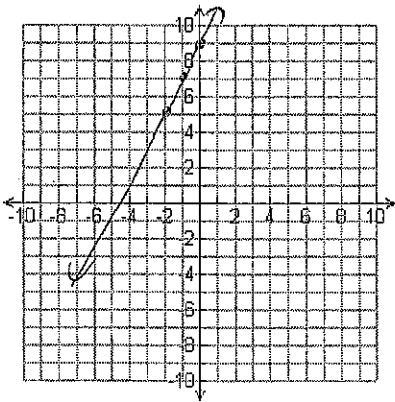
1. a) How do you determine if the given table represents a linear relationship?

x	-2	-1	0	1	2	3	4
y	5	7	9	11	13	15	17

b) Explain how you decided.

yes rate of change is 2 ... stays the same

c) Graph the line



$$y = 2x + 9$$

2. Write a function rule in slope intercept form for the following:

x	y
2	7
5	16
9	28

$$\frac{9}{3} = 3$$

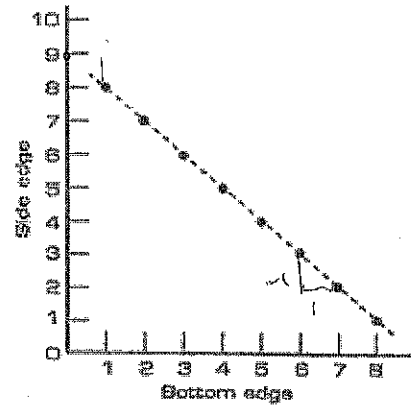
Rule:  $y = 3x + 1$

x	y
0	1
2	7
5	16
9	28

$\frac{9}{3} = 3$

x	y
3	4
5	10
9	22

b)



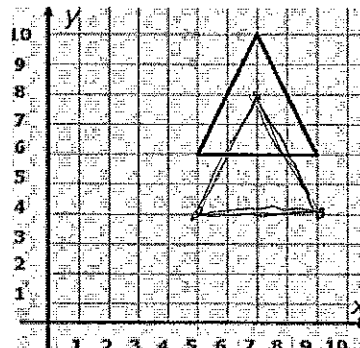
Rule:  $y = -x + 9$

3. The graph of the parent function  $f(x)$  is given.

a) Using the graph at the right, graph  $f(x) - 2$

b) Find the new domain and range

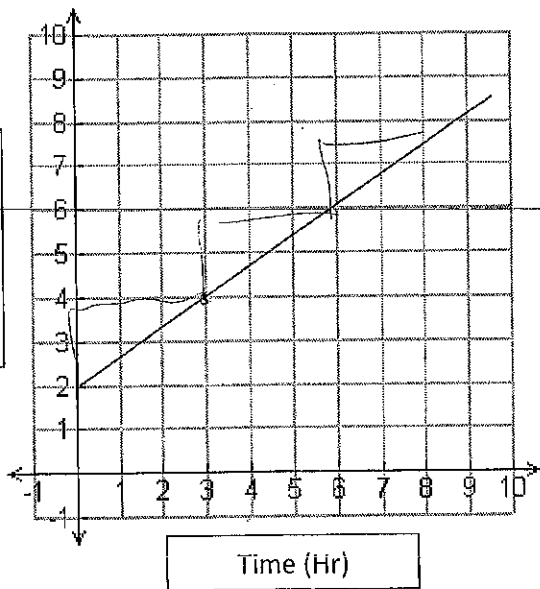
$D = [5, 9]$   $R = [4, 8]$



4. Given  $f(x - 3) + 4$ , describe the effect of this transformation on the parent function given in #3

up 4 + right 3

5. a) Interpret the graph for this situation. Give the numeric values for the rate of change.



b) Give the coordinates of the y-intercept and explain what it means for this situation.

$(0, 2)$  # of miles at the start

c) Write the equation of the given line.

$$y = \frac{2}{3}x + 2$$

6. If given a function rule, sketch a complete graph that represents that function. If given a graph, write the function representing it. Identify the intercepts for each function.

	Function	Graph	Slope/Intercepts
A.	$f(x) = -3x - 2$		$m = -3$ y-intercept: $(0, -2)$
B.	Slope Intercept Form $y = -\frac{4}{3}x + 10$ Point Slope Form $y - 6 = -\frac{4}{3}(x - 3)$		$m = -\frac{4}{3}$ y-intercept: $(0, 10)$