Name _____ Date _____/_____/_____

Algebra Mr. Towne

Chapter 3 Review – Part A

1) Solve these equations. Give reasons for each step.

a. $-3x = 9$

b. $9.1 = -3x - 73.7$

2) These tables represent linear relationships. For each relationship, give the slope, the y-intercept, the recursive rule, and the equation in slope-intercept (explicit) form.

a.

x	y
0	3
1	5
2	7

Slope = Recursive rule:

y-intercept = Explicit rule:

b.

x	y
1	-2
2	-6
3	-10

Slope = Recursive rule:

y-intercept = Explicit rule:

c.

x	y
0	-3.5
-4	-7.5
2	-1.5

Slope = Recursive rule:

y-intercept = Explicit rule:

d.

x	y
-12	75
4	-21
-3	21

Slope = Recursive rule:

y-intercept = Explicit rule:

3) A single section and double section of a fence are shown below

a. Each time a section is added to the fence, how many new logs are needed?
b. Fill in the spaces in the table below:

Number of sections	1	2	3	4	.....		.....	50
Number of logs	4	7			.....	91	.....	

c. Describe a recursive routine that relates the number of logs required to the number of sections.

d. If each section is 3 meters long, what is the longest fence you can build with 217 logs?

4) Suppose a new small-business computer system costs $5,400. Every year its value drops by $525.

a. Write an equation modeling the value of the computer in any given year. Let y be the value of the computer and let x be the number of years since the computer was new.

b. Make a graph of the situation on the graph paper provided.

c. What is the slope, and what does it mean in the context of the problem?

d. What is the y-intercept, and what does it mean in the context of the problem?

e. What is the x-intercept, and what does it mean in the context of the problem?

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Chapter 3 Review – Part B

Solve the following two equations two different ways – using the table and then showing your work as a mathematician.

$2\left(\frac{x}{4}+7\right)-8=28$		
Description	Undo	Result
1) Pick x		
2)		
3)		
4)		
5)		

$\frac{3+2(x-4)}{5}+6=11$		
Description	Undo	Result
1) Pick x		
2)		
3)		
4)		
5)		
6)		

$$2\left(\frac{x}{4}+7\right)-8=28$$

$$\frac{3+2(x-4)}{5}+6=11$$