NAME: _____ ALGEBRA

LESSON

1.3 1. Write an algebraic expression for each phrase. Use the variable n.

a) Three times a number: _____

b) Five less than a number: _____

c) Twenty divided by a number: _____

d) Seven more than four times a number: _____

2. Evaluate each expression for $n = 5$.

a) $n + 7 =$ _____ b) $10 - n =$ _____ c) $2n + 3 =$ _____

1.4 3. a) Zadie climbed four sets of stairs every minute for the Charity Stair Climb Fundraiser. Complete this table. The pattern continues.

Time (minutes)	1	2	3	4	5	6	7	8
Sets of stairs climbed								

b) How many sets of stairs will Zadie have climbed after 15 minutes? _____

4. Write a relation for the pattern rule for each number pattern.

a) 3, 6, 9, 12, 15, . . . _____

b) 8, 9, 10, 11, 12, . . . _____

1.5 5. Complete each table.
How is each Output number related to its Input number?

a)

Input n	**Output $3n + 5$**
1	
2	
3	
4	
5	

b)

Input n	**Output $5n + 3$**
1	
2	
3	
4	
5	

c)

Input n	**Output $5n - 3$**
1	
2	
3	
4	
5	

_____ _____ _____

_____ _____ _____

_____ _____ _____

LESSON

6. Use algebra. Write a relation for each table.

a)

Input m	Output
1	9
2	11
3	13
4	15
5	17

b)

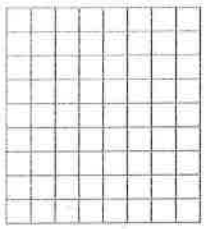
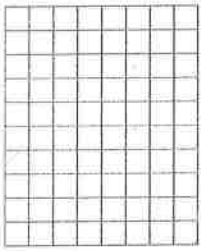
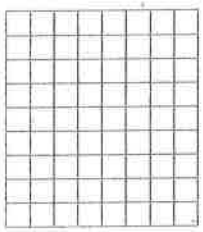
Input m	Output
1	9
2	16
3	23
4	30
5	37

c)

Input m	Output
1	5
2	12
3	19
4	26
5	33

1.6 7. Graph each relation in question 6.

a) b) c)

1.7 8. Write an equation for each sentence.
Let n represent the number.

a) Four times a number is sixteen. _____

b) Eight subtracted from four times a number is sixteen. _____

c) Twelve more than four times a number is sixteen. _____

d) Thirty-two minus four times a number is sixteen. _____

. Write an equation for each sentence. Let n represent the number.

a) Four less than a number is sixteen. _____

b) A number divided by five is ten. _____

c) Five more than three times a number is eleven. _____

1.8 9. Robin walked twice around a lake, plus an extra 3 km.
Her pedometer showed that she had walked a total of 19 km.
Write then solve an equation to find how far it is around the lake.

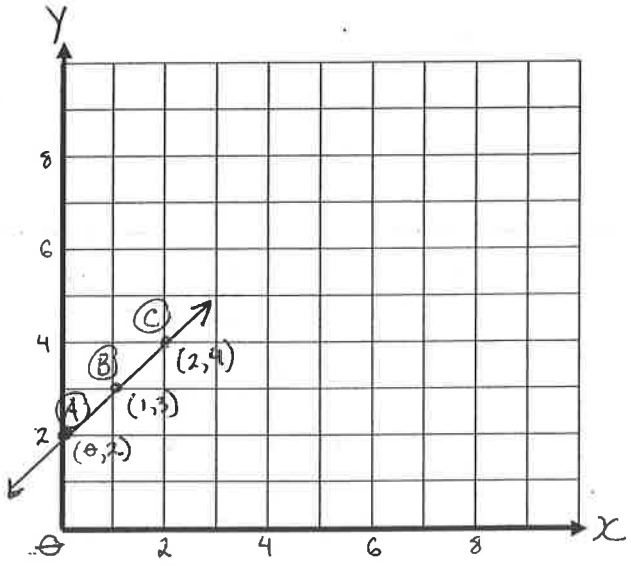
_____

Graphing Table of Values

Name: _____

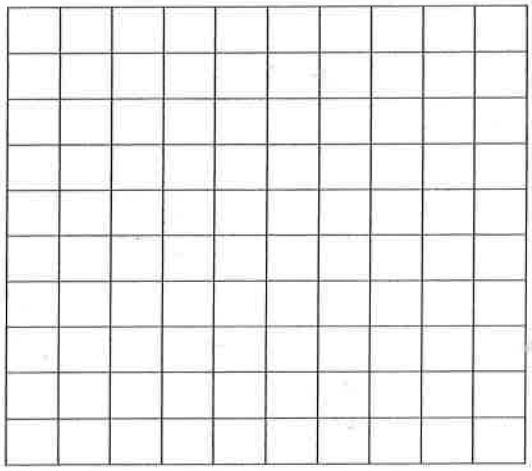
1)

x	$x+2$	y	
0	0 + 2	2	A (0, 2)
1	1 + 2	3	B (1, 3)
2	2 + 2	4	C (2, 4)



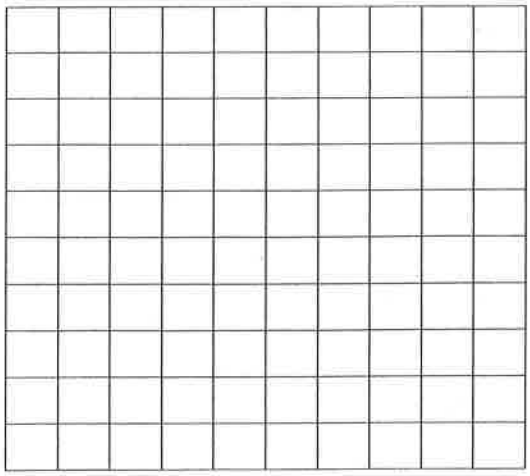
2)

x	$2x+2$	y
0		
1		
2		



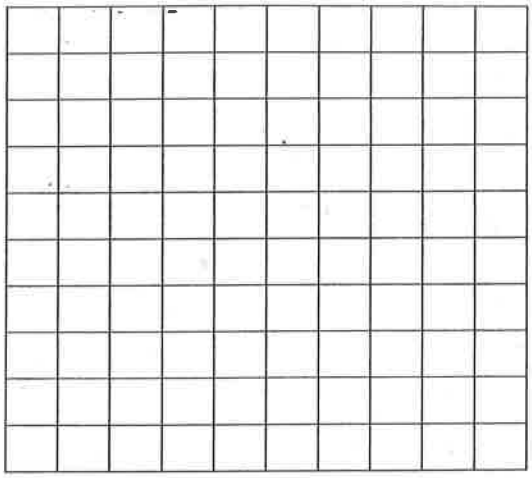
3)

x	$4x+2$	y
0		
1		
2		



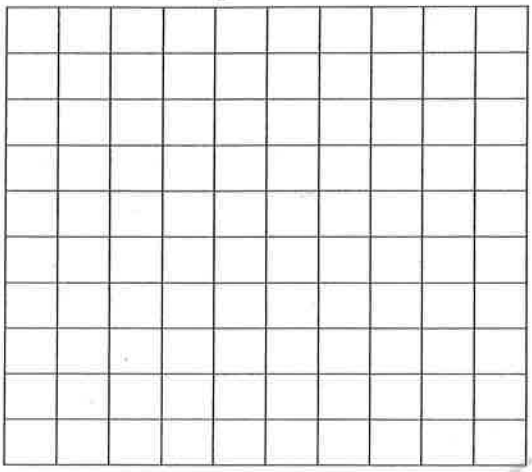
4)

x	x	y
0		
1		
2		



5)

x	$2x$	y
0		
1		
2		



6)

x	$4x$	y
0		
1		
2