Patterns and Algebra Review #2

1. For the following patterns, use the first three numbers in the pattern to find the rule. Then continue the pattern by filling in the blanks.

a) 7, 15, 23, ____, ____, ____ The rule is _____

b) 100, 91, 82_____, _____, _____ The rule is _____

c) 154, 151, 148, _____, _____, _____ The rule is _____

d) 910, 925 940, _____, _____, _____ The rule is _____

2. Use a T-Table to solve the following word problem. Be sure to include a sentence answer.

The water is 4 cm deep at 1 p.m. The water rises 11 cm each hour. How deep will the water be at 5 p.m.?

3. Use a numberl line to solve the following word problem.

Brenda is 70 km from home. She can cycle towards her home 15 km an hour. How far from home will she be in 3 hours?

4. Find the lowest commom multiple of each pair of numbers.

a) 2 and 5 b) 7 and 21 c) 10 and 3 d) 7 and 8

LCM = _____ LCM = _____ LCM = _____ LCM = _____

5. T-Tables

Directions:
Give the algebraic formula rule for each T-table.
Use the T-table to show your work or to prove your rule is correct.

a)

Input	Output
100	80
101	81
102	82

Algebraic Formula Rule:

b)

Input	Output
1	7
2	14
3	21

Algebraic Formula Rule:

c)

Input	Output
1	10
2	11
3	12

Algebraic Formula Rule:

d)

Input	Output
1	8
2	11
3	14

Algebraic Formula Rule:

e)

Input	Output
1	4
2	9
3	14

Algebraic Formula Rule:

f)

Input	Output
1	2
2	5
3	8

Algebraic Formula Rule:

g)

Input	Output
1	17
2	24
3	31

Algebraic Formula Rule:

*h)

Input	Output
1	1
3	9
5	25

Algebraic Formula Rule:

*i)

Input	Output
1	3
3	11
5	19

Algebraic Formula Rule:

Hint: First try to find a simple rule without using gaps. If this does not work then a) find the gap, b) multiply the input by the gap, and c) figure out what you must add or subtract to get the output.