	Algebra 1	Unit 5 PRACTICE Test	Name:		
			Date:	Block:	
1.	Determine whether 215 is a to which term is it?	erm value of each sequence below.	That is, can't(n	n) = 215. If so,	

a. 
$$t(n) = 25 + 5(n - 3)$$
  
b.  $t(n) = -8 + 2x$   
c.  $t(n) = 3x + 20$ 

- 2. Determine whether 447 is a term value of each sequence below. That is, can't(n) = 447. If so, which term is it?
  - a. t(n) = 10n + 12 b. t(n) = 16 3n c. t(n) = 5 6(n 2)
- 3. Determine whether 633 is a term value of each sequence below. That is, can't(n) = 633. If so, which term is it?
  - a. t(n) = 5n + 7 b. t(n) = 3 + 3(n + 3) c. t(n) = 9 8n
- 4. Find the sequence generator for each sequence listed below. Write an equation for the  $n^{th}$  term in each sequence in recursive and explicit form, keeping in mind that the first term of each sequence is t(1).

5, 10, 15...Generator:
$$t(0)=$$
Recursive Eq.:Explicit Eq.:3, 6, 9...Generator: $t(0)=$ Recursive Eq.:Explicit Eq.:1, -4, 16, -64...Generator: $t(0)=$ Recursive Eq.:Explicit Eq.:1, 1, 2, 3, 5...Generator: $t(0)=$ Recursive Eq.:Explicit Eq.:512, 256, 128...Generator: $t(0)=$ Recursive Eq.:Explicit Eq.:

3. Determine if the following graphs/tables define a sequence that is <u>arithmetic</u>, <u>geometric</u>, or <u>neither</u>. Explain how you know by writing the sequence and labeling the generator (for each).

a. 🥇	f(n)	b.		C	
	30	Week	Population	48 -	(5, 48)
	25	1	300	36 - (4, 24)	
	15	2	450	12 - (1, 3) - (2, 6) - (3, 12)	
	5	3	675	$-0.5 \stackrel{0}{_{-1}} 0.5 1 1.5 2 2.5 3 3.5 4$	4.5 5 5.5
-1	1 2 3 4 5 6 7 MathBits.com	2			
Sequence:		Sequence:		Sequence:	
Generator:		Generator:		Generator:	

- 4. Some north Salem students made a table that had of the first 4 bounces, however they can't read their writing for the height of the first bounce. So they have the following incomplete table
  - a. What is the rebound ration of the ball?
  - b. If the ball is dropped from 300cm, how high will it's rebound be?

Ν	T(n)		
(bounce number)	Rebound height		
1			
2	70.10		
3	36.45		
4	18.96		
5			

- c. From the table, what would the initial drop height have been? In other words t(0)=\_\_\_?
- d. Suppose the ball was dropped from a 15 meter roof. How high would the following bounces be.

1<sup>st</sup>\_\_\_\_\_2<sup>nd</sup>\_\_\_\_\_3<sup>rd</sup>\_\_\_\_\_

e. If you made an equation for the situation, would the equation ever indicate that the ball would stop bouncing, and how does this compare with your physical experiences in this situation?