Name _____

Learning Targets: This is an organized list of learning targets to help you prepare for the Unit Test.

IF YOU ARE GOING TO RE-TAKE a Unit test, you need to completely fill this out. It should probably take you a week from when you first received your test back to study and write your examples and problems down.

You need to fill out the learning targets if you are going to RE-TAKE a Unit test

If you are a low rank on a topic you should: Look in your notes, do some research on the topic, look in your green book Chapter 1 and 11, ask a friend who has a higher rank, ask a question of the teacher. If you are re-taking a test, you should probably check out the green book from the Media Center " Discovering Advanced Algebra".

	Example #1	Example #2	Example #3	Example #4
I identify a recursive sequence	$U_1=18$ $U_n=2+U_{(n-1)}$ $n\geq2$ This is an example of an arithmetic Increasing sequence.			
I can identify a geometric sequence	$U_0= 4$ $U_n= 3*U_{(n-1)}$ $n\geq1$ This is an example of an increasing geometric sequence			
I can identify a shifted geometric sequence	$U_0=22$ $U_n=.8*U_{(n-1)} + 22$ $n\geq1$ This is an example of an increasing shifted geometric sequence.			
I can write a recursive sequence for arithmetic, geometric and shifted	**2,4,6,8,…** **I know this this is an arithmetic sequence. We have said in this class that the starting value can be assigned U_1** **$U_1= 2$** **$U_n= 2+U(n-1)$** **$n\geq2$** **I know this is also**			

	$y=2x$			
I can find a limit (Click it out on the calculator or use a table in sequence mode)	What is the limit for anything arithmetic?	**What is the limit for anything geometric?**	What is the limit of a shifted? $U_0= 18$ $U_n= .4*U_{(n-1)} +2$ $n\geq1$ Click it out to find the limit….	$U_0= 1023$ $U_n= .7*U_{(n-1)} +18$ $n\geq1$ **What is the limit?**
I use sequence mode in my calculator **(See Notes)**				
I can apply sequences in real life. Depreciation Growth Changing the compounding period	**I know that I should write all depreciation problems $U_0(1-r)^x$**	**I know that all interest problems are $U_0(1+r)^x$**		
I can graph a sequence or match a recursive formula to a graph				
I can write a direct (or explicit) formula for arithmetic or geometric	**$U_1= 18$ $U_n= 4+U_{(n-1)}$ $n\geq2$**			

I can use summation notation	$$\sum_{x=1}^{12} 4x - 3$$ **I know that term 1 is 1 and term 12 is 45 and the sums formula is** Sn= $\frac{n(U1+Un)}{2}$ S12= $\frac{12(1+45)}{2}$ **276**			
I can sum up an arithmetic sequence	**Sum up the sequence 4,6,8,10,12,14,16,18** **I know that U1=4 and that U8= 18 The sums formula is** Sn = $\frac{n(U1+Un)}{2}$ Sn= $\frac{8(4+18)}{2}$ **Sn= 88**			
I can sum up a partial geometric sequence	**DID NOT DO**			
I can do financial applications	**I made the examples for you. See below.**			

I can do financial Applications:

1) You take out a loan for $45,000. The APR on this loan is 6% compounded monthly. What will balance be on this loan in 5 years?

2) You take out a loan for $45,000. The APR on this loan is 4% compounded monthly. You also make $650 payments each month. What will the balance be in 1 year? How many months does it take for you to pay off this loan? What is the total amount that you paid over the life of the loan.

3) You buy a boat for $55,000. The boat will depreciate 8% every year. What will the balance be in 4 years? What will the value be in 13 years? Does this have a limit?