Na	me: Date:
	Test: Sequences, Series and Financial Math
1.	Using an appropriate formula for t_n , calculate the 12th term of the sequence { 5, 10, 20, 40, }.
2.	Using an appropriate formula for t_n , calculate the 45th term of the sequence $\{$ -90, -83, -76, -69, $\}$
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3.	The number 546 occurs as a term in the sequence $\{$ -65, -52, -39, -26, $\}$. Which term is it? (Put another way, for what n does t_n = 546?) Use an appropriate t_n formula.

4. The number 6561 occurs as a term in the sequence $\{-\frac{1}{9}, -\frac{1}{3}, 1, 3 ... \}$. Which term is it? (Put another way, for what n does $t_n = 6561$?) Use an proper t_n formula.

5. Find the general term $(t_n = ...)$ for an arithmetic sequence where $t_9 = 30$ and $t_{22} = 108$.

6. Find the general term $(t_n = ...)$ for an geometric sequence where $t_7 = 5.76$ and $t_{14} = 737.28$.

7. Using an appropriate formula for S_n , calculate the sum of: -64-57-50-43-...+90+97

8. Using an appropriate formula for Sn, calculate the sum of: $1024 + 512 + 256 + ... + \frac{1}{8} + \frac{1}{16}$

Arithmetic Sequence: $t_n = a + (n-1)d$

Geometric Sequence: $t_n = \alpha r^{n-1}$

Arithmetic Series: $S_n = \frac{n}{2}(a + t_n)$

Geometric Series: $S_n = \frac{a(r^n - 1)}{r - 1}$