Name: _____ Per.: _____

Looking Ahead: Algebra 2 Unit 12

The questions below are examples of the type of questions you'll see on your **Semester 2 Final**. This is how these tests will ask you to apply your skills from **Unit 12**, as well as your common sense math skills. They are structured in a way that is deliberately complicated, but the skills are the same as what you have learned up to this point.

Semester 2 Final Examples

1.	If the sequence is arithmetic, what are the missing terms? 7, ____, ____, ____, 23	2.	If the sequence is arithmetic, what are the missing terms? 7, ____, ____, ____, 23
3.	Determine if the series is arithmetic. If it is, determine the common difference and the next 5 terms. 15, 2, -11, -24, -37, …	4.	Determine if the series is arithmetic. If it is, determine the common difference and the next 5 terms. -18, -13, -8, -3, …
5.	Find the 6^{th} term of the sequence. 3, -15, 75, -375, …	6.	Find the 5^{th} term of the sequence. -7, -28, -112, …

7.	Determine the first 3 terms in the sequence. $a_n = 3^n + 4$	8.	Determine the first 3 terms in the sequence. $a_n = n^3 - 18$
9.	Expand the series and evaluate. $\sum_{k=5}^{7} \frac{1}{(k-5)^{-k}}$	10.	Expand the series and evaluate. $\sum_{k=3}^{6} (k+3)^2$