Name_____ Date_____

Determine if the following sequence is arithmetic or geometric, and write a recursive formula.

"11,22,44,88,…."

Tommy: "I think the sequence is arithmetic because to get to the next term, you just add the previous term to itself."	Rachel: "I think the sequence is geometric because you multiply the previous term by two in order to get the next term."
$a_1 = 11$ $a_n = a_{n-1} + 11$	$a_1 = 11$ $a_n = a_{n-1} \bullet 2$

Who do you agree with? How do you know? Use what you know about arithmetic and geometric sequences to justify and support your answer.

I agree with _____ because _____

_____

_____

_____

I know this is true because _____

_____

_____

_____

_____made a mistake when_____

_____

_____

_____

We Understand

_____

_____

_____

Write a mathematical argument to justify your answer. Use complete sentences and correct mathematical vocabulary. Make sure you include:

- Who do you agree with, Tommy or Rachel?
- Evidence to support who is correct
- Evidence to support who is incorrect
- Warrants (from the We Understand section)