

Name \_\_\_\_\_ Date \_\_\_\_\_

### Thank Goodness Descartes Didn't Drink Some Warm Milk! Graphs of Sequences

- Triplets seem to run in the Tribiani family. Great-grandma Tribiani is one of a set of triplets. She had triplets, and each of them had triplets. The sequence shows the number of descendants in the Tribiani family over several generations if this trend continues.

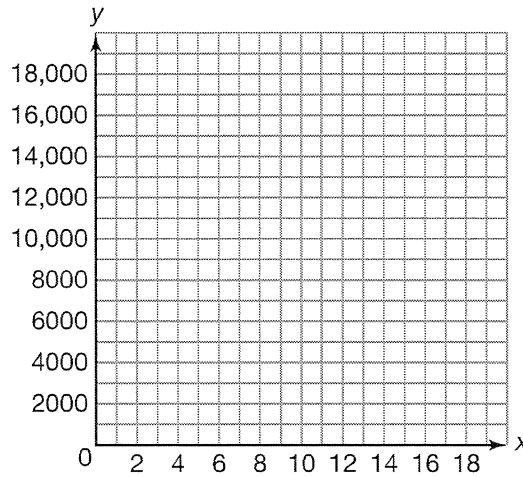
1, 3, 9, 27,...

- Describe the sequence.
- Write an explicit formula to represent this sequence.
- Create a table of values using the first 10 terms of the sequence.

Term Number	Term Value



- d. Use each pair of numbers from the table as an ordered pair. Then graph the ordered pairs on the grid shown.



- e. Describe the shape of the graph. How does the graph's shape confirm your answer to part (a)?

- f. Is the graph discrete or continuous? Explain your reasoning.

- g. Use the explicit formula from part (b) to predict the number of descendants in the Tribiani family in 20 generations. Show your work.

