# TOPIC 9-3 Independent Practice & Application

1. For each sequence, determine whether the sequence is arithmetic (A), geometric (G), or neither (N).
2. \_\_\_\_\_ 
3. \_\_\_\_\_ 
4. \_\_\_\_\_ 
5. \_\_\_\_\_ 
6. \_\_\_\_\_ 
7. For each of the following geometric sequences, determine both the recursion formula and the general rule for the *n*th term. Then use the general rule to calculate the 7th term.
8. 
9. 
10. For each of the following sequences, determine the indicated geometric means.

8. 

9. 

1. Determine each geometric series. Use the graphing calculator to verify your results.
2. The sum of the first 12 terms of the sequence: 
3.  for the series 
4. 

E. The ABC company manufactures and sells cellular telephones.

The company’s gross sales, beginning in the first year of operation, are as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | 1 | 2 | 3 | 4 | 5 |
| **Sales (in millions of US Dollars** | .48 | 1.032 | 2.198 | 4.726 | 10.208 |

1. Is the sales growth for ABC Company a geometric sequence? Why?   
   If so, what is the common ratio?
2. If the sales growth pattern continues, what will be the sales for ABC Company in year 12?
3. What will be the total sales for ABC Company for years 1 through 12?