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

**Geometric Sequences and Series**

Determine whether each sequence could be geometric or arithmetic. If possible find the common ratio or common difference.

|  |  |
| --- | --- |
| 1.) | 2.) |
| 3.)  | 4.)  |

 Find the 10th term of each geometric sequence.

|  |  |
| --- | --- |
| 5.)  | 6.)  |
| 7.)  | 8.)  |

 Find the 8th term of the geometric sequence with the given terms.

|  |  |
| --- | --- |
| 9.)  | 10.)  |
| 11.)  | 12.)  |

 Find the geometric mean of each pair of numbers.

|  |  |  |
| --- | --- | --- |
| 13.)  | 14.)  | 15.)  |

 Find the indicated sum for each geometric series.

|  |  |
| --- | --- |
| 16.)  | 17.)  |

34.) Deanna received an e-mail asking her to forward it to 10 other people. Assume that no one breaks the chain and that there are no duplicate recipients. How many e-mails will have been sent after 8 generations, including Deanna’s.