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.) |
| 4.)  | 5.)  | 6.)  |

Find the 10th term of each geometric sequence.

|  |  |  |
| --- | --- | --- |
| 7.) | 8.) | 9.) |

 Find the 9th term of each geometric sequence.

|  |  |
| --- | --- |
| 10.)  | 11.)  |
| 12.)  | 13.)  |

 Find the 7th term of the geometric sequence with the given terms.

|  |  |  |
| --- | --- | --- |
| 14.)  | 15.)  | 16.)  |

 Find the 6th term of the geometric sequence with the given terms.

|  |  |  |
| --- | --- | --- |
| 17.)  | 18.)  | 19.)  |

Find the geometric mean of each pair of numbers.

|  |  |  |
| --- | --- | --- |
| 20.)  | 21.)  | 22.)  |
| 23.)  | 24.)  | 25.)  |

Find the indicated sum for each geometric series.

|  |  |
| --- | --- |
| 26.)  | 27.)  |
| 28.) | 29.)  |
| 30.) | 31.)  |
| 32.) | 33.)  |

34.)**Salary** In his first year, a math teacher earned $32,000. Each successive year, he earned a 5% raise. How much did he earn in his 20th year? What were his total earnings over the 20-year period?