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?