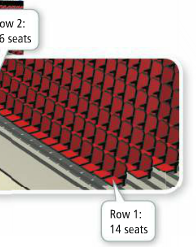
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

**Sequences and Series Review**

1. Find the 32nd term of each sequence.

|  |  |
| --- | --- |
| * 1. -9, -8.7, -8.4, . . . | * 1. 101, 105, 109, 113, . . . |

1. What are the second and third terms of the arithmetic sequence 80, \_\_\_\_\_, \_\_\_\_\_\_, 125, . . .



1. The numbers of seats in the first 13 rows in a section of an arena form an arithmetic sequence. Rows 1 and 2 are shown in the diagram below. How many seats are in Row 13?

Write the next 3 terms of the pattern. Then write the explicit and recursive rule for the following arithmetic sequences:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

Write the next 3 terms of the pattern. Then write the explicit and recursive rule for the following geometric sequences:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

Find the sum of the arithmetic sequence.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Find the sum of the sequence of the first 22 terms: |  | Find the sum of the first 98 terms.  -17, -9, -1, 7, 15 … |

Find the sum of the geometric sequence.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Find the infinite sum of |  | Find the sum of the sequence of the first 16 terms. |

Find the 24th term of the sequence.

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| --- | --- | --- | --- |
|  |  |  |  |

Use Pascal’s Triangle to do the following

|  |  |
| --- | --- |
|  | Multiply the binomial: |
|  | Multiply the binomial: |
|  | Find the 4th term of the expansion: |

Determine whether each infinite geometric series diverges or converges. Find the sum if the series converges.

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