Math 3H Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Per:\_\_\_

**11.1 Arithmetic Series**

For each arithmetic sequence find the **common difference**, the **explicit formula**, and the **52nd term**.

|  |  |  |
| --- | --- | --- |
| 1. 3 ,6 ,9 ,12 ,15 ,18 | 1. 6 ,13 ,20 ,27 ,34 | 1. 14, 22, 30, 38 |
| 1. -22, 8, 38, 68 | 1. 31, 21, 11, 1 | 1. 23, -177, -377, -577 |

**Re-write each series in sigma notation**.

|  |  |  |
| --- | --- | --- |
| 1. 38, 41, 44 ,47, . . . 68 | 1. 2 ,12, 22, 32, . . . 52 | 1. -4, 6, 16, 26, . . . 106 |
| 1. 301 + 302 + 303 + . . .+ 308   - | 1. 3 + 6 + 9 + . . . + 105 | 1. 39 + 43 + 47 + . . . + 155 |

**Factor each**.

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

**Simplify each expression**.

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

**Find each product**.

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

**Find each term described**.

|  |  |
| --- | --- |
| 1. 3rd term in the expansion of | 1. 1st term in the expansion of |

**Divide**.

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