

Name: _____

TA: _____

Math 11 Pre-Calculus LG 1 Ver B

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1. Write the first 4 terms of the arithmetic sequence where $t_1 = -1$ and $d = 5$. (2 marks)

2. If $t_n = -2n + 1$, determine t_7 . (1 mark)

3. If t_1 is 7 and t_8 is 49, determine t_3 and t_5 . (2 marks)

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4. Determine the first term of an arithmetic sequence if the 17th term is 36 and the difference is -4. (2 marks)

5. Determine the sum of the arithmetic series: $-11 + (-6) + (-1) + 4 + \dots + 94$. (3 marks)

6. Find the sum of the first 18 terms of the following series: $8 + 6 + 4 + \dots$ (2 marks)

7. Carol was building a pyramid of bricks. She started with 35 bricks on the bottom row. The next row on top had 4 less bricks in it.
- a) How many rows of bricks would there be if there were only 3 bricks in the top row? *(2 marks)*
- b) What is the total number of bricks she would need to build the pyramid? *(1 mark)*
8. The 15th term of an arithmetic sequence is 100 and the sum of the first 15 terms is 870. Determine the first 3 terms of the series. *(2 marks)*

9. The terms $x + 2$, $2x + 4$, and $5x - 2$ are consecutive terms in an arithmetic sequence. Determine the value of x and state the three terms. (3 marks)