

NAME: _____ QUARTER: _____

GR. & SEC - _____ DATE: _____

REMEDIAL CLASS ACTIVITY # 1
Generating Patterns in Sequences**DIRECTION:** Read and understand the questions carefully.
Check the box that corresponds to your answer.

1. Which of the following defines infinite sequence?

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|--------------------------|------------------|--------------------------|----------------------------|
| ☐ | Days of the week | ☐ | Every other day |
| ☐ | Teenage life | ☐ | First Fridays of July 2021 |

2. What are the next three terms of the sequence:
1, 11, 22, 34, ...?

- | | | | |
|--------------------------|------------|--------------------------|------------|
| ☐ | 46, 60, 75 | ☐ | 42, 54, 66 |
| ☐ | 47, 61, 76 | ☐ | 44, 60, 74 |

3. What is the 25th term of the sequence: $a_n = \frac{(-1)^n}{n^2}$?

- | | | | |
|--------------------------|------------------|--------------------------|-------------------|
| ☐ | $\frac{1}{625}$ | ☐ | $\frac{25}{625}$ |
| ☐ | $-\frac{1}{625}$ | ☐ | $-\frac{25}{625}$ |

4. What is the 11th term in the sequence:
-1, 4, -9, 16, -25, ...?

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|--------------------------|------|--------------------------|------|
| ☐ | 100 | ☐ | 121 |
| ☐ | -100 | ☐ | -121 |

5. Find the first four terms of the sequence: $a_n = 3n + 2$.

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|--------------------------|--------------|--------------------------|--------------|
| ☐ | 5, 7, 11, 14 | ☐ | 5, 8, 11, 14 |
| ☐ | 5, 8, 11, 15 | ☐ | 5, 9, 13, 17 |

6. What is the 8th term in the sequence:
9, 4, -1, -6, -11, ...?

- | | | | |
|--------------------------|-----|--------------------------|-----|
| ☐ | -21 | ☐ | -31 |
| ☐ | -26 | ☐ | -36 |

7. Which of the following patterns shows finite sequence?

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|--------------------------|------------------------|--------------------------|------------------------|
| ☐ | 6, 12, 18, 24, 30, ... | ☐ | First 20 whole numbers |
| ☐ | Multiples of 6 | ☐ | 100, 50, 25, 12.5, ... |

8. Write the first four terms of the sequence: $a_n = n^2 - 1$?

- | | | | |
|--------------------------|-------------|--------------------------|--------------|
| ☐ | 0, 3, 8, 15 | ☐ | 1, 5, 10, 16 |
| ☐ | 1, 3, 5, 7 | ☐ | 0, 2, 7, 12 |

9. Madison has the number patterns (5, 3, 8, 6, 11) for a homework problem. She says that the number pattern is alternately adding 5 and subtracting 2. Did Madison correctly describe the pattern?

- | | |
|--------------------------|--|
| ☐ | No, the pattern is alternately adding 5 and subtracting 2. |
| ☐ | No, the pattern is alternately subtracting 2 and adding 5. |
| ☐ | No, the pattern is alternately subtracting 3 and adding 4. |
| ☐ | Yes, Madison's description of the pattern is correct. |

10. Which of the following shows a pattern?

- | | | | |
|--------------------------|------------------|--------------------------|--------------------------|
| ☐ | 3, 2, 3, 2, 3, 2 | ☐ | A, G, M, T, O, 9 |
| ☐ | 5, 7, 2, T, 6, Y | ☐ | Smooth, long, wall, sing |

REFLECTION:**What have you learned in this activity?**
