

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?

- | | |
|---|---|
| <input type="checkbox"/> Days of the week | <input type="checkbox"/> Every other day |
| <input type="checkbox"/> Teenage life | <input type="checkbox"/> First Fridays of July 2021 |

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

- | | |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> 46, 60, 75 | <input type="checkbox"/> 42, 54, 66 |
| <input type="checkbox"/> 47, 61, 76 | <input type="checkbox"/> 44, 60, 74 |

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

- | | |
|---|--|
| <input type="checkbox"/> $\frac{1}{625}$ | <input type="checkbox"/> $\frac{25}{625}$ |
| <input type="checkbox"/> $-\frac{1}{625}$ | <input type="checkbox"/> $-\frac{25}{625}$ |

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

- | | |
|-------------------------------|-------------------------------|
| <input type="checkbox"/> 100 | <input type="checkbox"/> 121 |
| <input type="checkbox"/> -100 | <input type="checkbox"/> -121 |

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

- | | |
|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> 5, 7, 11, 14 | <input type="checkbox"/> 5, 8, 11, 14 |
| <input type="checkbox"/> 5, 8, 11, 15 | <input type="checkbox"/> 5, 9, 13, 17 |

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

- | | |
|------------------------------|------------------------------|
| <input type="checkbox"/> -21 | <input type="checkbox"/> -31 |
| <input type="checkbox"/> -26 | <input type="checkbox"/> -36 |

7. Which of the following patterns shows finite sequence?

- | | |
|---|---|
| <input type="checkbox"/> 6, 12, 18, 24, 30, ... | <input type="checkbox"/> First 20 whole numbers |
| <input type="checkbox"/> Multiples of 6 | <input type="checkbox"/> 100, 50, 25, 12.5, ... |

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

- | | |
|--------------------------------------|---------------------------------------|
| <input type="checkbox"/> 0, 3, 8, 15 | <input type="checkbox"/> 1, 5, 10, 16 |
| <input type="checkbox"/> 1, 3, 5, 7 | <input type="checkbox"/> 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?

- | |
|---|
| <input type="checkbox"/> No, the pattern is alternately adding 5 and subtracting 2. |
| <input type="checkbox"/> No, the pattern is alternately subtracting 2 and adding 5. |
| <input type="checkbox"/> No, the pattern is alternately subtracting 3 and adding 4. |
| <input type="checkbox"/> Yes, Madison's description of the pattern is correct. |

10. Which of the following shows a pattern?

- | | |
|---|---|
| <input type="checkbox"/> 3, 2, 3, 2, 3, 2 | <input type="checkbox"/> A, G, M, T, O, 9 |
| <input type="checkbox"/> 5, 7, 2, T, 6, Y | <input type="checkbox"/> Smooth, long, wall, sing |

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