



Playing with Number Patterns

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A number pattern is a sequence of numbers that follows a specific rule.

Identifying patterns helps in predicting the next numbers in the sequence.

Patterns can be based on addition, subtraction, multiplication, division, or other mathematical operations.

1. Increasing and Decreasing Patterns

Increasing Pattern: The numbers go up in a sequence.

Decreasing Pattern: The numbers go down in a sequence.

Example:

- **Increasing:** 2, 4, 6, 8, ? (**Next number:** 10) → **Rule:** +2
- **Decreasing:** 100, 90, 80, ? (**Next number:** 70) → **Rule:** -10

2. Skip Counting Pattern

Skip counting means counting by a fixed number.

Used in multiplication tables.

Example:

- **Skip count by 3:** 3, 6, 9, 12, 15, ...
- **Skip count by 5:** 5, 10, 15, 20, 25, ...

3. Odd and Even Number Patterns

Odd numbers: 1, 3, 5, 7, 9, ... (Numbers that cannot be divided by 2)

Even numbers: 2, 4, 6, 8, 10, ... (Numbers that are divisible by 2)

Example:

- **Odd number pattern:** 1, 3, 5, 7, ? (**Next number:** 9)
- **Even number pattern:** 2, 4, 6, 8, ? (**Next number:** 10)

4. Square and Triangle Number Patterns

Square numbers: Numbers obtained by multiplying a number by itself.

Example: 1, 4, 9, 16, 25, ? (**Next number:** 36 → 6×6)

Triangle numbers: Numbers formed by adding consecutive natural numbers.

Example: 1, 3, 6, 10, 15, ? (**Next number:** 21 → $1 + 2 + 3 + 4 + 5 + 6$)