

**SESSION : 2**

**CLASS : 3**

**SUBJECT : MATHEMATICS**

**CHAPTER NUMBER: 11**

**CHAPTER NAME : PATTERNS**

**SUBTOPIC : RULES OF PATTERNS, NUMBER PATTERNS**

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**CHANGING YOUR TOMORROW**

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# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

**LETS RECAPITULATE**

1.



**Now can you say what is its unit of repeat????**

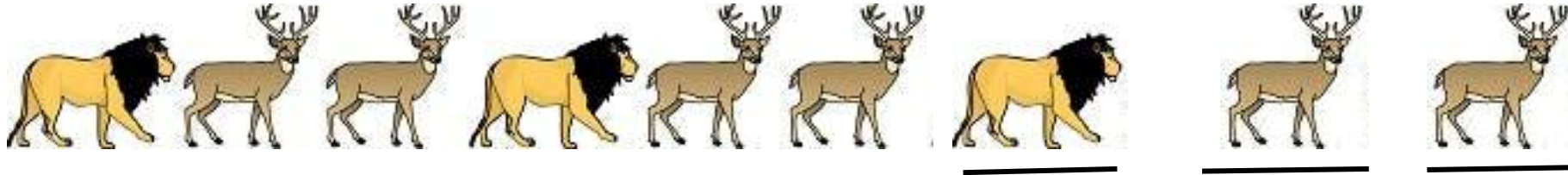


# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

**LETS RECAPITULATE**

2.



**Now can you say what is its unit of repeat????**



# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

**LETS RECAPITULATE**

3.



**Now can you say what is its unit of repeat????**

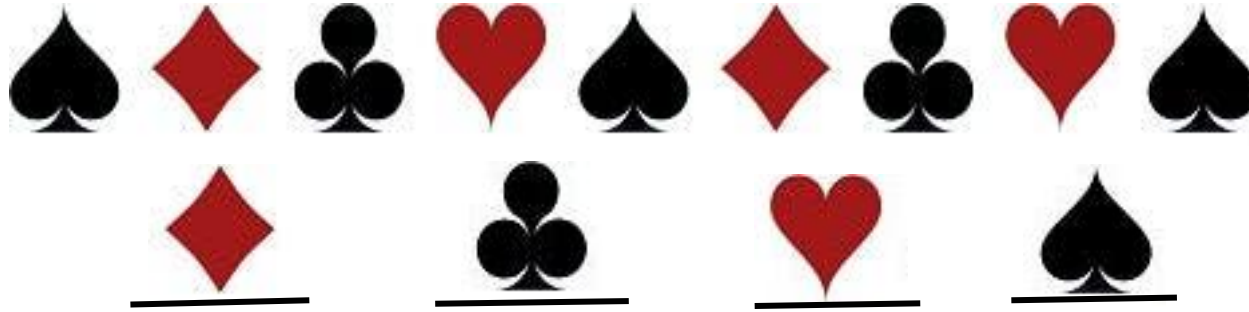


# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

**LETS RECAPITULATE**

4.



**Now can you say what is its unit of repeat???**



# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

### RULES OF PATTERNS

- 1) The fixed order in which a growing pattern increases is called its rule.
- 2) A pattern in math is a repeating sequence based on a rule.
- 3) To find the rule of a pattern, observe how the pattern increases as it moves from one sequence to the next.

# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

### NUMBER PATTERN

Number pattern is a pattern or sequence in a series of numbers. This pattern generally establishes a common relationship between all numbers.

There are two types of number patterns:

1. Arithmetic Sequences
2. Geometric Sequences

# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

### Types of Number Patterns

There are two common number sequence patterns:

1. Arithmetic Sequences
2. Geometric Sequences

#### Arithmetic Sequence

Arithmetic sequences are sequences of numbers with constant differences between consecutive terms.

Ex. - 1, 4, 7, 10, 13, 16, ..... is an arithmetic sequence because the difference between consecutive terms is 3.

#### Geometric Sequences

The geometric progression is a relation between two non-zero numbers in which, the difference between consecutive terms is not a constant.

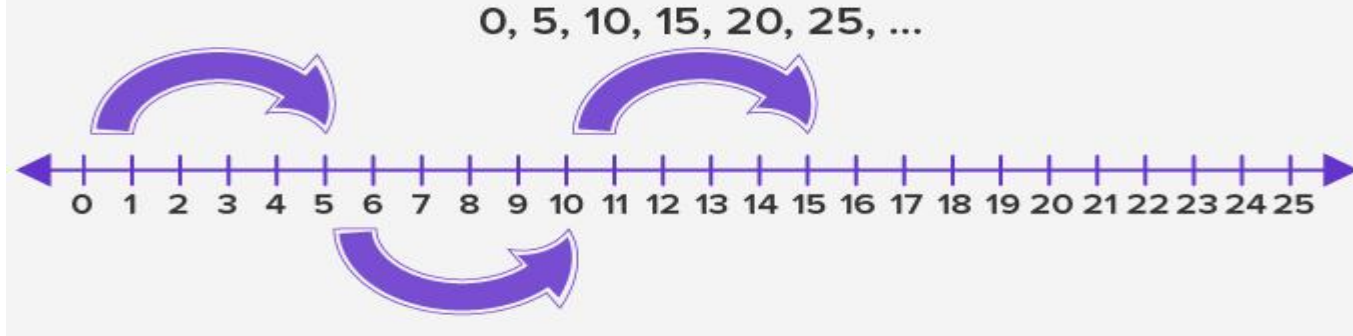
Ex. - 1, 4, 8, 11, 15, 18, ..... is a Geometric sequence because the difference between consecutive terms is not even.



# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

Let us understand



- \* Here, we get the numbers in the pattern by skip counting by 5. Given are the steps to identify a number pattern.
- \* To solve the problems of number pattern, we need first to find the rule being followed in the pattern.
- \* To find out the rule, we need to see the first few numbers in the series.
- \* Try to see the difference between consecutive numbers, it will help us understand the relationship between the numbers.

# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

**Exercise-11 Q. No A and B  
book page 137  
in the notebook**



# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

### A. Complete the following letter patterns.

1. B, D, F, H, J   L  ,   N  ,   P       Start at B, skip one letter each time

2. A, C, E, G, I, K   M  ,   O  ,   Q  

Start at A, skip one letter each time

3. aA, bB, cC, dD   eE  ,   fF  ,   gG  

Small letter followed by capital letter

# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

4. AbB, CdD, EeF, GhH  IjJ ,  KIL ,  MnN

Start at AB, separated by small letter of the second alphabet followed in sequence.

5. AbC, DeF, GHI, JkL  MnO ,  PqR ,  StU

English letters, three at a time, starting from A, but the middle alphabet in small.

# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

**B. Complete the following number patterns and write the rule in the blank space.**

1. 5, 10, 15, 20, 25 30, 35, 40      Start at 5 and add 5 each time

2. 10, 20, 30, 40, 50 60, 70, 80      Start at 10 and add 10 each time

3. 125, 150, 175, 200 225, 250, 275

Start at 125 and add 25 each time

# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS

4. 900, 800, 700, 600    500,    400,    300

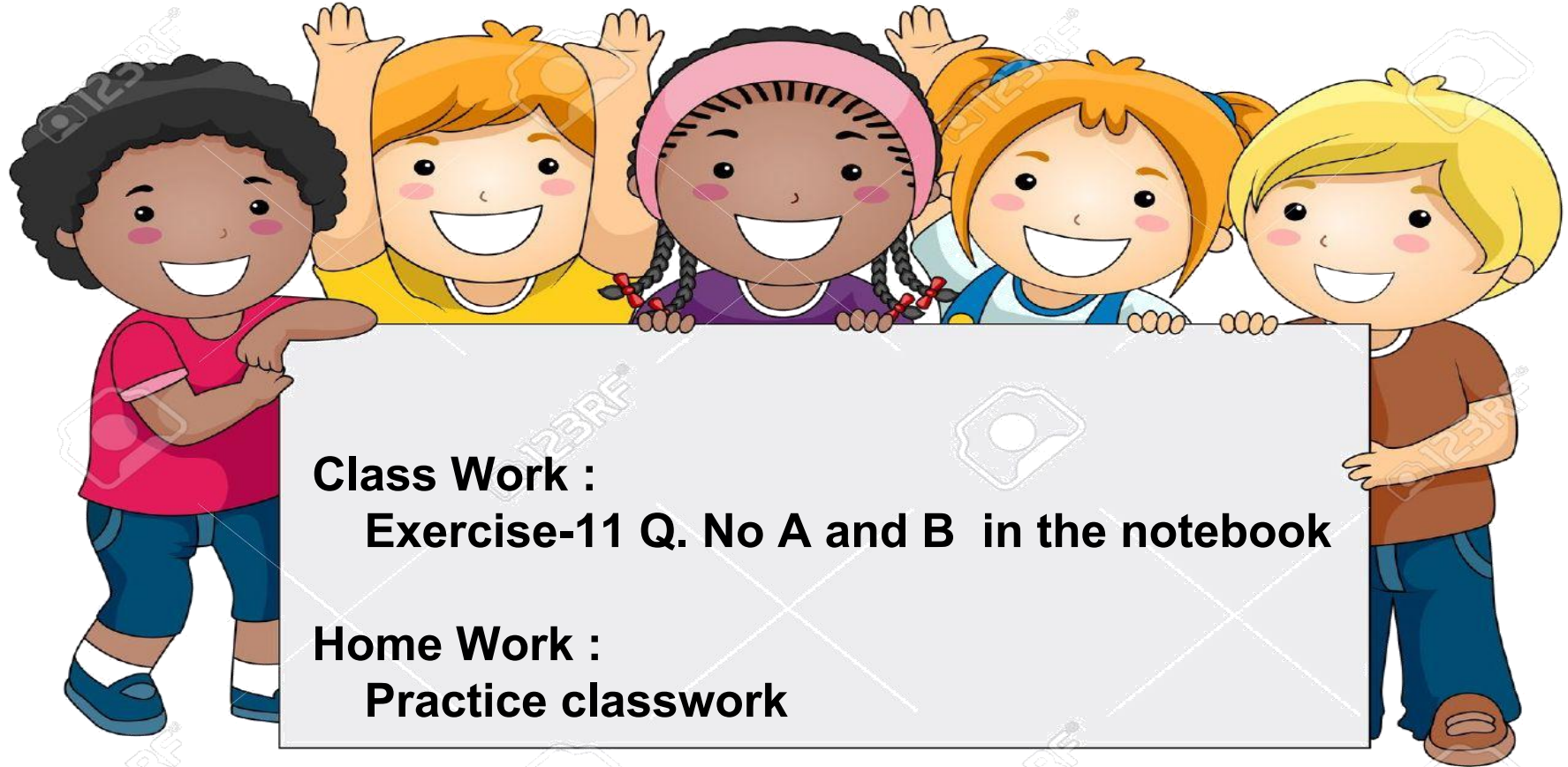
Start at 900 and subtract 100 each time

5. 950, 900, 850, 800    750,    700,    650

Start at 950 and subtract 50 each time

# PATTERNS

## RULES OF PATTERNS, NUMBER PATTERNS



## LEARNING OUTCOME:

**Children will be able to have ideas of different rules to follow the pattern. Understand the presence of patterns in day-to-day life and construct simple number patterns.**



**THANKING YOU**  
**ODM EDUCATIONAL GROUP**