# no 2 <br> <br> Repeated <br> <br> Repeated Patterins 

> Patterns are created when figures, shapes, objects are arranged in a particular order and repeated over and over again.


This is called a pattern. Then, it repeats.
$>$ We see patterns everywhere in our day-to-day experiences.


Floor


Shirt


Top


Tie


Socks

## Repeated pattern

A repeated pattern is a specific arrangement of elements that occurs over and over again.

## Example:

$$
1,2,3,1,2,3,1,2,3,1,2,3,1,2,3 .
$$

Here 1, 2, 3 is the pattern
It repeats again and again.
This is called repeated pattern.

## Types of repeated pattern

1. Alphabetical patterns
2. Number patterns
3. Geometrical patterns
4. Alphabetical Patterns

| A | B | A | B | A | B | A | B | A, B pattern. |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| A | B | C | A | B | C | A | B | C | A, B, C pattern. |
| A | A | B | B | A | A | B | B | A, A B B B pattern. |  |
| A | A | B | A | A | B | A | A | B | A, A, B pattern. |

$\left.\begin{array}{lllllllllll}A & B & B & A & B & B & A & B & B & A\end{array}\right), B$ pattern.
$\begin{array}{llllllllllll}\text { A } & \text { B } & \text { A } & \text { A } & \text { B } & \text { A } & \text { A } & \text { B } & \text { A } & \text { A, B, A pattern. }\end{array}$

$$
\begin{array}{lllllllllllll}
\mathrm{A} & \mathrm{~B} & \mathrm{C} & \mathrm{D} & \mathrm{~A} & \mathrm{~B} & \mathrm{C} & \mathrm{D} & \mathrm{~A} & \mathrm{~B} & \mathrm{C} & \mathrm{D}
\end{array}
$$

A, B, C, D pattern.

## Example 1:

Find the pattern and the answer
$\begin{array}{lllllllllllllll}\mathrm{A} & \mathrm{B} & \mathrm{A} & \mathrm{A} & \square & & \mathrm{A} & \mathrm{B} & \mathrm{A}\end{array}$

Solution:
$A, B, A$ alphabets are repeated.
$A, B, A$ are the Pattern.
Therefore, the answer will be
A
A
A

## Types of repeating patterns

2. Number pattern As same as the alphabets.

| 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | (1, 2 repeats ) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| ( $1,2,3$ repeats ) |  |  |  |  |  |  |  |  |
| 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | ( $1,1,2,2$ repeats ) |
| 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |

## Example 1:

Find the pattern and the answer

$$
\begin{array}{l|l|l|l|l|l|l|l|l|}
1 & 2 & 1 & 1 & \square & & 1 & 2 & 1
\end{array}
$$

Solution:
$1,2,1$ are the numbers that repeat.
1, 2, 1 are the Pattern.
Therefore, the answer will be

| 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Example 2:
Find the pattern and the answer

| 10 | 20 | 30 | 40 | $\square$ | $\square$ | 30 | $\square$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Solution:
$10,20,30,40$ are the numbers that repeat.
After 40 , here 10 and 20 will come.
After 30, here 40 will come.

$$
\begin{array}{lllllllll}
10 & 20 & 30 & 40 & 10 & 20 & 30 & 40 \\
\hline
\end{array}
$$

## Types of repeating patterns

3. Geometrical Patterns
$\square \wedge \square \wedge \square \wedge \square \Delta$ repeats

## $\square \wedge \square \square \perp \square \square \square$ repeats


$\checkmark$ repeats

$\Delta \Delta \vee$ repeats

## $\square$ t $\square \square$ t $\square \square \rightarrow \square$

$$
+-x=+-x=+-x=
$$

$$
+-x=\text { repeats }
$$



$$
\Rightarrow \downarrow \Leftarrow \uparrow \Rightarrow \downarrow \Leftarrow \uparrow \Rightarrow \downarrow \Leftarrow \uparrow
$$

$\Delta \nabla$ repeats

## Example 1:

Find the pattern and the answer


Solution:
$\square \square \Delta \Delta$ are the shapes that repeat.
Square, square, triangle, triangle
The answer will be,

