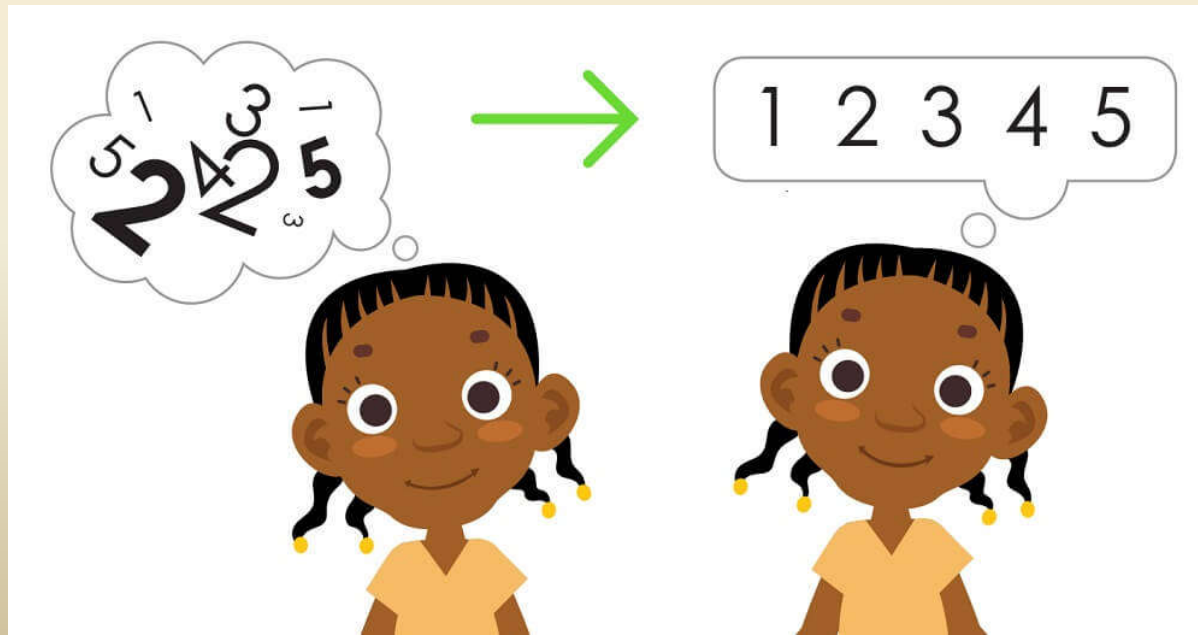# OGUN DIGICLASS

CLASS: PRIMARY SCHOOL

SUBJECT: MATHEMATICS
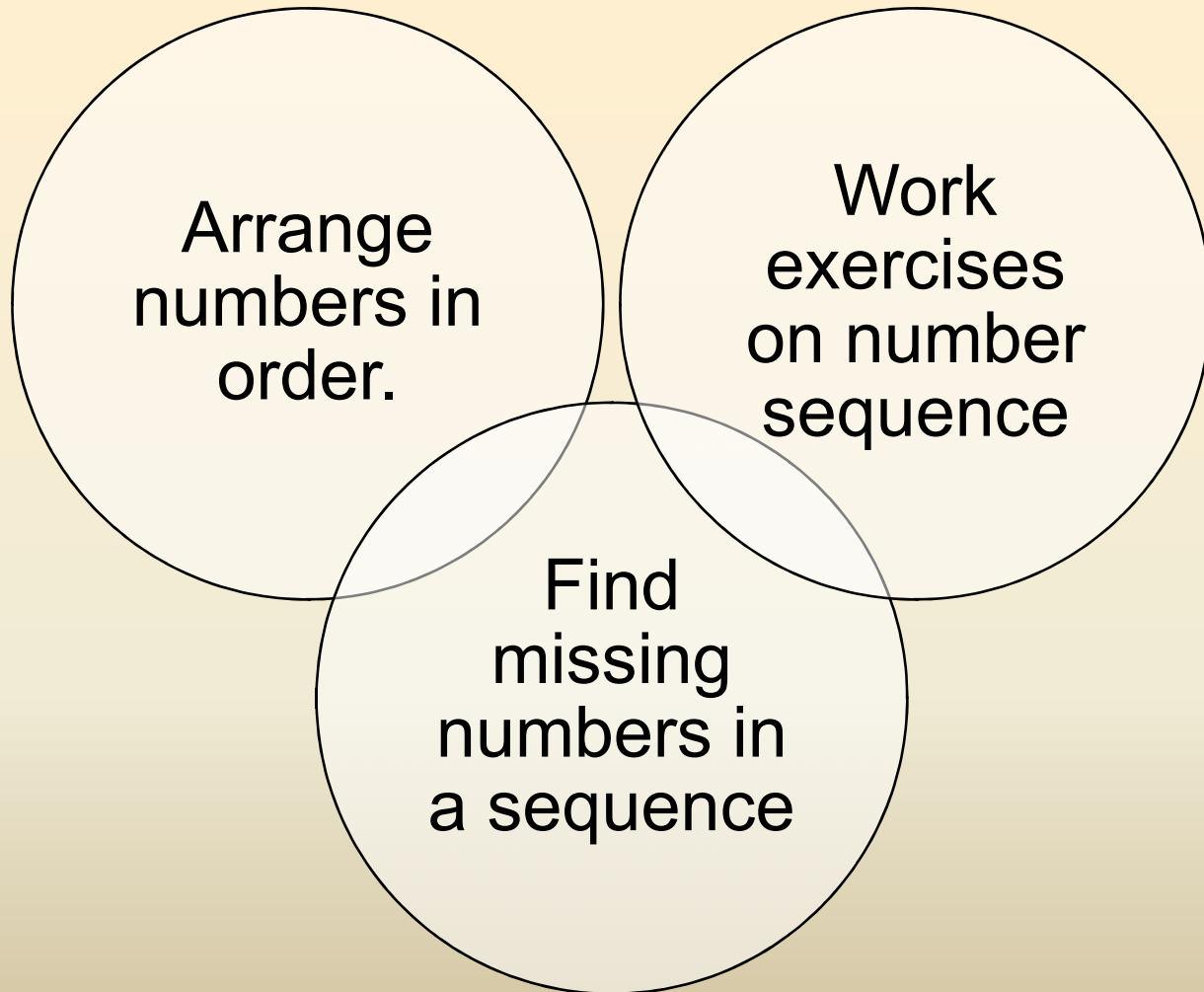
TOPIC: NUMBER SEQUENCE

Rationale

- Helps learners' understand and organize materials.

- Helps them to solve problems

- Develops learners' thinking skills.

Learning Objectives

Arrange numbers in order.

Work exercises on number sequence

Find missing numbers in a sequence

Sequences!

A number sequence is a list of numbers that are in order

We all know this sequence of numbers! What is the rule?

1   2   3   4   5   6   7   8   9

Of course its add one!

In today's lesson we are going to be looking at lots of different sequences!

Example

1, 4, 7,10,13,16,19,22,25, ...

This sequence has a difference of 3 between each number

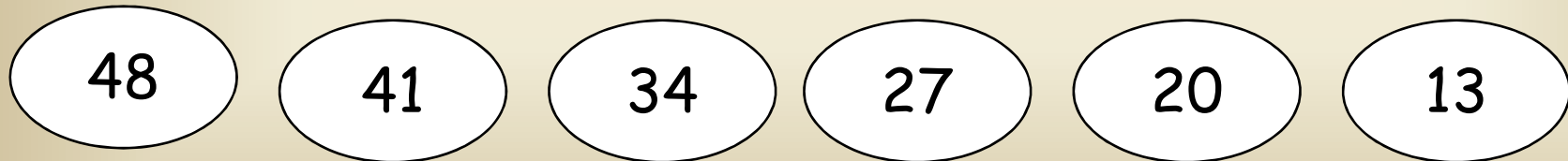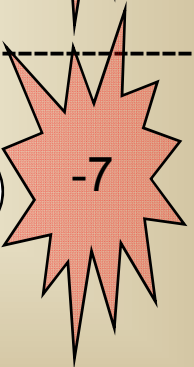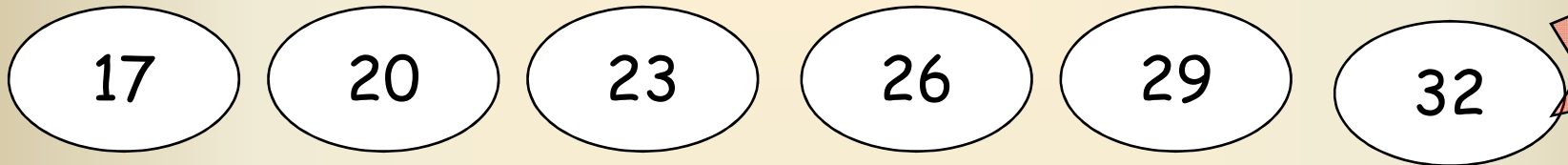## Number Sequences

Numbers are written and counted in sequence.
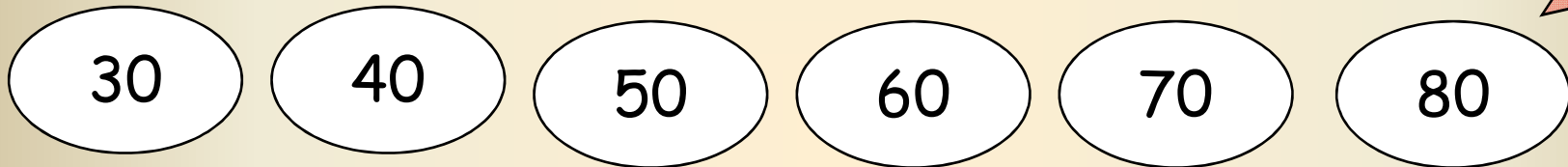
The sequence can:

- be infinite (go on forever) 997, 998, 999, 1000, …
- go forwards 501, 502, 503, 504, …
- go backwards 400, 399, 398, 397, …
- start at any number 877, 878, 879, 880, …
- be a skip or alternate pattern 105, 110, 115, 120 or 1, 2, 1, 2, …

Let's count to infinity!

Look at these number sequences carefully can you guess the next 2 numbers?

What about guess the rule?

+10

| 30 | 40 | 50 | 60 | 70 | 80 |

+3

| 17 | 20 | 23 | 26 | 29 | 32 |

-7

| 48 | 41 | 34 | 27 | 20 | 13 |
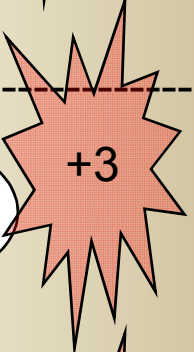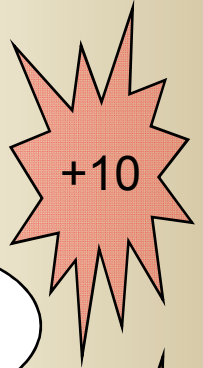
Can you work out the missing numbers in each of these sequences?

| 50 | 75 | 100 | | 150 | 175 | **+25** |

| 30 | | 70 | 90 | 110 | 130 | **+20** |

| 196 | 191 | 186 | | 176 | 171 | **-5** |

| 306 | 296 | 286 | | 266 | 256 | **-10** |

Can you work out the missing numbers in each of these sequences?

| 50 | 75 | 100 | 125 | 150 | 175 | +25 |

| 30 | 50 | 70 | 90 | 110 | 130 | +20 |

| 196 | 191 | 186 | 181 | 176 | 171 | -5 |

| 306 | 296 | 286 | 276 | 266 | 256 | -10 |

Now try these sequences – think carefully and guess the next number!

| 1 | 2 | 4 | 7 | 11 | | +1, +2, +3 … |

| 3 | 6 | 12 | 24 | 48 | | double |

| 0.5 | 2 | 3.5 | 5 | 6.5 | | + 1.5 |

| 7 | 4 | 1 | -2 | -5 | | -3 |

Now try these sequences – think carefully and guess the next number!

| 1 | 2 | 4 | 7 | 11 | 16 | +1, +2, +3 … |

| 3 | 6 | 12 | 24 | 48 | 96 | double |

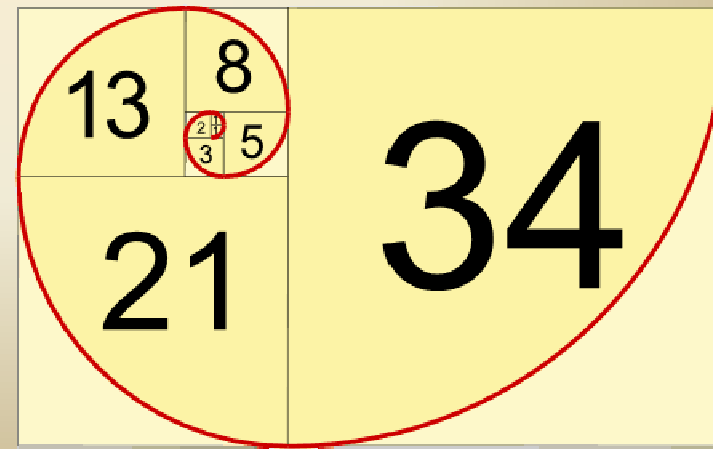| 0.5 | 2 | 3.5 | 5 | 6.5 | 8 | + 1.5 |

| 7 | 4 | 1 | -2 | -5 | -8 | -3 |

1   1   2   3   5   8   13   21   ?

This is a really famous number sequence which was discovered by an Italian mathematician a long time ago.

It is called the Fibonacci sequence and can be seen in many natural things like pine cones and sunflowers!!!

Guess my rule!

3   7   15   31   63   127

2   3   5   9   17   33

Guess my rule!

3   7   15   31   63   127

⭐ x2 +1   ⭐ x2 -1

2   3   5   9   17   33

Further Practice

- Write the next three numbers

13   26   52   104   208   ------   ------   -----

101   201   301   401   ------   ------   --------

130   110   90   70   50   -------   ------   -------

96   84   72   60   48   -------   ------   --------

100   125   150   175   200   ------   ------   --------