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(Learning Time 2 Hours)

Number Patterns

- 1.3 Odd Number pattern
- Odd numbers are numbers which have a remainder of 1 when divided by 2.
- Let's consider, how the pattern of the odd numbers is developed by considering the following table.

| Term | Multiples of 2 | Multiples of 2 - 1 | Odd number |
|------------------|--------------------|---------------------|-------------|
| First term | $2 = 2 \times 1$ | $(2 \times 1) - 1$ | 2 - 1 = 1 |
| Second term | $4 = 2 \times 2$ | $(2 \times 2) - 1$ | 4 - 1 = 3 |
| Third term | $6 = 2 \times 3$ | $(2 \times 3) - 1$ | 6 - 1 = 5 |
| : | ÷ | : | ÷ |
| Tenth term | $20 = 2 \times 10$ | $(2 \times 10) - 1$ | 20 - 1 = 19 |
| ÷ | ÷ | : | ÷ |
| <i>n</i> th term | $2n = 2 \times n$ | $(2 \times n) - 1$ | 2n - 1 |
| ÷ | ÷ | ÷ | ÷ |

- The general term of the odd numbers starting from 1 and written in ascending order is 2*n*-1
- Do the exercise 1.3 by studying the page no: 8 and 9

1.4 Square number pattern and triangular number pattern

- 1, 4, 9, 16, ... are the square numbers written in ascending order
- Square numbers can be obtained when a number is multiplied by the same number. We can represent this number pattern using dots in squares. Write the steps of finding the general term of the square number pattern by studying the page no: 10
- 1, 3, 6, 10, 15, ... are the triangular numbers written in ascending order. They can be represented by dots. Write the steps of finding the general terms of the triangular numbers pattern by studying the page no: 12
- Do the exercise 1.4 in page no: 11