

DOT pattern

Let's start representing each whole number with a set of dots and arranging these dots in some elementary shape to find number patterns. For arranging these dots, we take strictly four shapes into account. Numbers can be arranged into:

1. A line
2. A rectangle
3. A square
4. A triangle

Line

Every number can be arranged in a line. Examples:

The number 2 can be represented by



The number 3 can be represented by



All other numbers can be represented in a similar pattern.

Rectangle

Some numbers can be arranged as a rectangle. Examples:

The number 6 can be arranged as a rectangle with 2 rows and 3



columns as



Similarly, 12 can be arranged as a rectangle with 3 rows and 4 columns



as



Or as a rectangle with 2 rows and 6 columns as



Similar it can be formed by 8, 10, 14, 15, etc.

Square

Some numbers can be arranged as squares. Examples:



The number 4 can be represented as



and 9 as



Similar it can be formed by 16, 25, 36, 49 and so on.

Triangle

Some numbers can be arranged as triangles. Examples:



The number 3 can be represented as



Similar it can be formed by 10, 15, 21, 28, etc. It is to be noted that the triangle should have its 2 sides equal. Hence, the number of dots in the rows starting from the bottom row should be like 4,3,2,1. The top row should always have one dot.