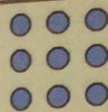


Square and Triangular Numbers

9 is called a **square number**, because 9 dots can be arranged to make a square pattern (3 by 3).



Understand what "square" numbers and "triangular" numbers are

The sequence of **square numbers** is :- 1, 4, 9, 16, 25, ... with the corresponding patterns below.

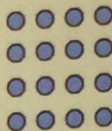
1



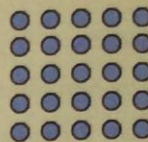
4



9



16



25

Exercise 3

- Draw the next **square** dot pattern after 25.
 - Write down the next **square** number after 25.
 - Write down the next **square** number after that.
 - Write down the 10th **square** number.
 - Write down the 20th **square** number.



- Which of the following numbers are square numbers :-

20, 64, 37, 72, 49, 52, 90, 26, 81, 100, 400, 500, 900, 1000?

- Copy and complete the table showing the first 20 "**perfect squares**" :-

Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Square																				

Triangle patterns of dots give what are called the **Triangular Numbers**.

The sequence of **triangular numbers** goes 1, 3, 6, 10, 15, .. with the corresponding patterns :-



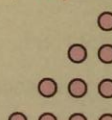
1st = 1



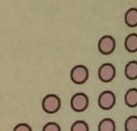
2nd = 3



3rd = 6



4th = 10



5th = 15

- Draw the pattern for the **6th** triangular number. Say how many dots are needed to make it.
- Write down the **7th**, **8th**, **9th** and **10th** triangular number and complete this table :-

Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Triangular																				