Revision Notes on Squares and Square Roots

Square Number

Any natural number ‘p’ which can be represented as y^2, where y is a natural number, then ‘p’ is called a **Square Number**.

Example

$4 = 2^2$

$9 = 3^2$

$16 = 4^2$

Where 2, 3, 4 are the natural numbers and 4, 9, 16 are the respective square numbers.

Such types of numbers are also known as **Perfect Squares**.

Some of the Square Numbers

1^2	=	1	16^2	=	256
2^2	=	4	17^2	=	289
3^2	=	9	18^2	=	324
4^2	=	16	19^2	=	361
5^2	=	25	20^2	=	400
6^2	=	36	21^2	=	441
7^2	=	49	22^2	=	484
8^2	=	64	23^2	=	529
9^2	=	81	24^2	=	576
10^2	=	100	25^2	=	625
11^2	=	121	26^2	=	676
12^2	=	144	27^2	=	729
13^2	=	169	28^2	=	784
14^2	=	196	29^2	=	841
15^2	=	225	30^2	=	900

2. Numbers between Square Numbers

If we take two consecutive numbers n and n + 1, then there will be (2n) non-perfect square numbers between their squares numbers.

Example

Let's take n = 5 and $5^2 = 25$

n + 1 = 5 + 1 = 6 and $6^2 = 36$

2n = 2(5) = 10

There must be 10 numbers between 25 and 36.

The numbers are 26, 27, 28, 29, 30, 31, 32, 33, 34, 35.

3. Adding Odd Numbers

Sum of first n natural odd numbers is n^2.

$$1 = 1 = 1^2$$

$$1 + 3 = 4 = 2^2$$

$$1 + 3 + 5 = 9 = 3^2$$