➢ **Problem:** Find the unit digit of the square of the numbers 1234, 5643

Solution:

i) The unit's place number is 4, $4^2 = 16$.

  So we can say that the unit digit of square of 1234 is 6.

ii) The unit's place number is 3, $3^2 = 9$

So we can say that the unit digit of square of 5643 is 9.

➢ **Problem:** Give reason for the following numbers being non-perfect squares 23453, 222000, 89722

Solution:

i) Perfect squares end in 0, 1, 4, 5, 6, or 9 only.

ii) Perfect squares have an even number of zeroes in the end.

iii) Perfect squares end in 0, 1, 4, 5, 6, or 9 only.

➢ **Problem:** The squares of which of the following would be odd numbers? 431, 7779

Solution:

i) We know that squares of odd numbers are always odd and squares of even numbers are always even. As 431 is odd so, square of 431 will also be odd.

ii) We know that squares of odd numbers are always odd and squares of even numbers are always even. As 7779 is odd so, square of 7779 will also be odd.

➢ **Problem:** Without adding, find the sum of first 10 consecutive odd numbers,

Solution:

We know that the sum of first n consecutive odd numbers = n^2

Number of digits (n) = 10, (1+ 3+ 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19)

We get $n^2 = 10^2 = 100$

Hence, the sum of first 10 consecutive odd numbers is 10^2 i.e. 100.

➢ **Problem:** How many numbers lie between squares of 25 and 26?

Solution: We know that between n and n+1, 2n number of non-perfect squares exists.

So, 2 * 25 = 50 non-perfect squares or numbers lie between squares of 25 and 26.