

SQUARES AND SQUARE ROOTS

Q1. Write a Pythagorean triplet whose one number is

- a) 6
- b) 14
- c) 16

Q2. How many non-perfect squares are there between the squares of the two consecutive natural numbers n and $(n + 1)$?

Q3. Write each of the following as the sum of two consecutive natural numbers

- a) 11^2
- b) 19^2

Q4. Write down the correct answer:

- a) $25^2 - 24^2 =$
- b) $371^2 - 370^2 =$

Q5. Pick the integers that lie between 23^2 and 27^2

517, 523, 530, 619, 598, 690, 759.

Q6. Find the unit digit of the square of the number 26563467.

Q7. Which of the following is/are Pythagorean triplet?

- a. 3,4,7
- b. 2,4,6
- c. 4,5,9
- d. 3,4,5

Q8. Using the identity: $(a - b)^2 = a^2 - 2ab + b^2$, find the value of $(991)^2$

Q9. If $a = 11$, $b = 10$, find the value of the given expression:

$$(a^2 + b^2 + 2ab) \times (a^2 + b^2 - 2ab)$$

Q10. Find the square of the following numbers **without direct multiplication:**

- (a) 12 (b) 23 (c) 1009

Worksheet-2 on Squares and Square roots

Date : 15/07/24

Q1. What is the least perfect square exactly divisible by 6,9,15,20?

Q2. The sides of a rectangle field are 80m and 18m respectively. What is the length of its diagonal?

Q3. What is the value of $1+3+5+\dots+57$?

Q4. Find the square root of : 9801 (Using both Prime factorisation and Long division method) – write a conclusion which one is easier for you.

Q5. In an auditorium, the number of rows is equal to the number of chairs in each row. If 3050 people present over there, then some people will not be able to sit in the auditorium.

- (i) How many people will not be able to sit?
- (ii) Find the no of chairs in each row.
- (iii) How many chairs must be added in the auditorium so that no one will stand out?