Brain International School

Vikas Puri, New Delhi

ASSIGNMENT NO. 3

SUBJECT: MATHEMATICS CLASS-VIII JULY'2025

Squares and square roots

Q1. How many non square numbers lie between the following pairs of numbers?

(i) 1000^2 and 1001^2

(ii) 95^2 and 96^2

Q2. Without actual addition find the sum of :

1+3+5+7+9+11+13+15+17+19+21

Q3. What will be unit 's digit in the squares of the following numbers:

(i) 84864 (ii) 99770 (iii) 2613 (iv) 2339 (v) 67766

Q4. Write a Pythagorean triplet whose smallest member is (a) 10 (b) 22

Q5. (i) Find the square root of 144 by the method of repeated subtraction.

(ii) Find the square root by division method

(a) 96.2361 (b) 0. 394384

Q6.11025 students are sitting in a lawn in such a way that there are as many students in a row as there are rows in the lawn. Find the number of rows in the lawn.

Q7. Find the smallest number by which 2016 be divided so that it becomes a perfect square. Also find the square root of number obtained.

Q8. Find the least number that must be added to 1300 so as to get a perfect square. Also find the square root of the perfect square.

Q9Find the side of a square whose area is equal to the area of a rectangle with sides 6.4 m and 2.5 m.

Q10. CASE STUDY QUESTIONS

During dance practice in school 6570 students of different schools are arranged in rows such that the number of students in each row is equal to the number of rows. In doing so, the instructor finds out that few children are left out.

(a) How many students were left out in arrangement? (1)

(b) What is the number of students forming a square? (1)

(c) Find the number of children in each row of the square. (2)

CUBES AND CUBE ROOTS

Q1. Find the cube root of :-

(i) 117649 (ii) 103823 (iii) 0.001331 (iv) $-2\frac{10}{27}$

Q2. By what least number should 678 be multiplied so as to obtain a number which is a perfect cube.

Q3. Find the smallest number by which 17496 must be divided so that the quotient is a perfect cube. Also find the cube root of the quotient.

Q4. Find the value of $3\sqrt{968} \times 3\sqrt{1375}$

Q5. Write the unit's digit of the cube of the following numbers:

(i) 21 (ii) 9688 (iiii) 1255 (iv) 19297

Q6. Evaluate :

(i) $\{\sqrt{(7^2 + 24^2)}\}^3$ (ii) $(\sqrt{8^2 + 6^2})^3$

Q7.

Write cubes of 5 natural numbers which are multiples of 3 and verify the following:

'The cube of natural number, which is a multiple of 3 is a multiple of 27'.