Square and square root class 8

1) Fill in the blanks :

(i) The square of 0.5 is …………

(ii) The square root of 0.49 is ………

(iii) Square of an odd number is always …………

(iv) Square of an even number is always …………

(v)Square of every integer is …………

(vi)Square of every negative integer is   ……………

(vii) A number whose exact square root can be obtained, is called a ……………

(viii) The square of a proper fraction is ………………… the proper fraction.

(ix) The square of a improper fraction is ………………… the improper fraction.

(x) There are ………… non perfect square numbers between the squares of the numbers n and (n + 1).

(xi) If the number is a square number, it has to be the sum of successive ……… numbers starting from 1.

2) Find the value of the following:

(i) $\sqrt{\dfrac{9}{16}}$ 　　　(ii) $\sqrt{1\dfrac{21}{100}}$ 　　　(iii) $\sqrt{6.25}$

3) Find the square root of 7056 .

4) Find the square root of $3\dfrac{109}{225}$

5) Find the square root of $1\dfrac{4}{5}$ **correct upto 3 decimal .**

6) Find the square of $1\dfrac{3}{5}$.

7)Find the square root of 6.76 .

8) Find the square root of 101124 by division method .

9) Find the square root of 464.8336 by division method .

10) Find the greatest and smallest and greatest 6 -digit numbers that are perfect square .

11) Find the smallest number by which 980 should be multiplied to make it a perfect square .

12) Find the smallest number by which 12168 should be divided to make it a perfect square .

13) Which of the following is a perfect square (i) $\sqrt{25}$ (ii) $\sqrt{\dfrac{4}{9}}$ (iii) $\sqrt{0.16}$ (iv) $\sqrt{5}$ (v) $\sqrt{3}$

14) Find the square root of 5 correct to 2 decimal places. Hence find the value of $\sqrt{\dfrac{3+\sqrt{5}}{3-\sqrt{5}}}$ correct to three significant digits.

15) Find the square root of 9.81 correct to 2 decimal places.

16) What least number which should be subtracted from 984 to make it a perfect square?

17) What least number should be added to 6598 to make it a perfect square ?

18) Find the greatest number of five digits which is a perfect square .

19) How many natural numbers lie between 9^2 and 10^2 ?

20) What will be the unit digit of the squares of the following numbers?
(i) 81
(ii) 272
(iii) 799
(iv) 3853
(v) 1234
(vi) 20387
(vii) 52698

21) Without adding, find the sum.
(i) 1 + 3 + 5 + 7 + 9

(ii) 1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19

(iii) 1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 + 21 + 23

22) There are 500 children in a school. For a P.T. drill, they have to stand in such a manner that the number of rows is equal to the number of columns. How many children would be left out in this arrangement?

23) The students of class VIII of a school donated ₹ 2401 in all, for Prime Minister's National Relief Fund. Each student donated as many rupees as the number of students in the class. Find the number of students in the class.

24) 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in each row.

25) Find the smallest square number that is divisible by each of the numbers 4, 9 and 10.

Ans. 1 (i) 0.25   (ii) 0.7   (iii)odd   (iv) even   (v) positive   (vi) positive   (vii) perfect square   (viii) less than   (ix) greater than (x) 2n   (x) odd

2) (i) $\dfrac{3}{4}$ (ii) $1\dfrac{1}{10}$ (iii)2.5

3) 84   4) $1\dfrac{13}{15}$ 5) 1.342   6) $2\dfrac{14}{25}$ 7) 2.6   8) 318   9) 21.56   10)100489, 998001

11) 5   12)2   13) (i) ,(ii), (iii)   14) 2.62   15) 3.13   16) 23   17)124   18) 99856   19) 18

20) (I)1 (ii) 4   (iii) 1   (iv) 9   (v) 6   (vi) 9   (vii) 4

21) (I) 25   (ii) 100 (iii) 144

22) 16   23) 49   24) 45   25) 900