Squares and Square Roots

<1M>

1.Find the square root of 729.

2.Fill in the blank using the given pattern

$7^2 = 49$

$67^2 = 4489$

$667^2 = 444889$

$6667^2 =$ _____

3.Without adding find the sum of 1 + 3 + 5+ 7 + 9 + 11 + 13 + 15 + 17

4.Find the square root of 1296

5.Express 19^2 as sum of two consecutive integers

6.How many numbers lie between squares of 99 and 100.

7.Find the square of 35 (without actual multiplication).

8.Numbers like 1, 4, 9, 16, 25,… are known as:

(A) Set of whole numbers (B) Square numbers (C) Integers (D) None

9.Find perfect square between 30 and 40.

(A) 32 (B) 35 (C) 36 (D) 39

10.Square number does not end with at units place.

(A) 2, 3, 7, 8 (B) 1, 2, 3, 4 (C) 4, 5, 6, 7 (D) 1, 4, 6, 8

11.Which of $\underline{123^2, 77^2, 82^2, 109^2}$ would end with digit 1.

(A) 123^2 (B) $\overline{77^2}$ (C) 82^2 (D) 109^2

12.If a number has 1 or 9 in the units place, then its square end with digit:

(A) 9 (B) 1 (C) 3 (D) 2

13. If a number has 4 or 6 in its unit's place, then the square of that number ends with the digit:

(A) 4 (B) 2 (C) 6 (D) None

14. What will be the "one's digit" in the square of 26387.

(A) 7 (B) 9 (C) 3 (D) 8

15. What will be the number of zeros in the square of 400.

(A) 2 (B) 4 (C) 8 (D) 6

16. Non perfect square numbers between the squares of the numbers (n) and (n + 1) is:

(A) None (B) 2 (C) Infinits (D) 2n

17. How many numbers are there between 5^2 and 6^2

(A) 11 (B) 12 (C) 10 (D) 13

18. How many non square numbers lie between 1000^2 and 1001^2.

(A) 1000 (B) 1001 (C) 2000 (D) 1999

19. Sum of successive odd numbers 1, 3, 5, 7, 9 and 11 is

(A) 36 (B) 25 (C) 30 (D) 40

20. Sum of first 'n' odd natural numbers is

(A) (n + 1) (B) n^2 (C) (n - 1) (D) 2n

21. Express 21^2 as the sum of two consecutive integers

(A) 220, 199 (B) 220 and 221 (C) 221, 222 (D) None

22. Product of two consecutive even or odd natural numbers (a +1) (a - 1) is

(A) $(a^2 - 1)$ (B) (a + 1) (C) (a - 1) (D) None

23. Product of two consecutive even number 44 and 46 is

(A) 2025 (B) 2024 (C) 2020 (D) 2525

24.Pythagorean triplet whose one number 6 is

(A) 6, 8, 10 (B) 6, 9, 12 (C) 3, 4, 6 (D) 6, 5, 4

25.Square of what number is 121

(A) Only11 (B) Only (-11) (C) Both 11 & (-11) (D) None of these

26.Square root of 121 is

(A) -11 (B) 11 (C) Both (D) None

27.Square root of 6400 is

(A) 80 (B) 64 (C) 32 (D) 3200

28.What could be the possible "one's" digits of the square root of 99856.

(A) 6 (B) 4 (C) Both 4 & 6 (D) None

29.Number of digits in the square root of 9801 (without any calculation).

(A) 1 (B) 2 (C) 3 (D) 4

30.Number of digits in the square root of 529 (without any calculation)

(A) 1 (B) 2 (C) 3 (D) 4

31.The length of the side of a square whose area is 441 m^2 is

(A) 29 m (B) 21 m (C) 31 m (D) 41 m

32.Square root is the inverse operation of

(A) 21 (B) square (C) Cube (D) None

33.Positive square root of a number is denoted by the symbol

(A) $\sqrt[3]{\ }$ (B) (ii) $\sqrt{\ }$ (C) (iii) $\sqrt[n]{\ }$ (D) None of these

34.Square root of decimal number 12.25 is

(A) 6.05 (B) 2.5 (C) 3.5 (D) 0.25

35.Number of digits in the square root of 27225 (without any calculation)

(A) 2 (B) 3 (C) 4 (D) 5

36.In a right triangle ABC, $\angle B = 90^0$, If AC = 13cm, BC = 5cm then AB is equal to:

(A) 10cm (B) 12cm (C) 8cm (D) 6cm

37.Square root of even square number is

(A) Odd (B) Even (C) Both (D) None

38.Square of 39 is (without actual multiplication)

(A) 1501 (B) 1529 (C) 1521 (D) 1527

39.49 as sum of 7 odd numbers in expressed as

(A) 1 + 3 + 5 + 7 + 9 + 11 + 13 (B) 1 + 3 + 5 + 7 + 11 + 13 + 15

(C) 11 + 7 + 5 + 3 + 1 + 9 + 15 (D) None

40.What will be the unit digit of the square of 555.

(A) 2 (B) 3 (C) 4 (D) 5

41.Number of digits in the square root of a perfect square number 14400.

(A) 3 (B) 5 (C) 2 (D) 4

42.Find the number of digits in the square root of 390625.

<2M>

43.Find the Square root of 1764.

44.Find the square root of 3136 by division method.

45.Area of a square plot is 4489 m^2. Find the side of the square plot.

46.Find the square root of 7.29.

47.Find the greatest number of 4 digits which is a perfect square.

48.Find the side of a square whose area is 1024 m^2.

49.For what value of x the following statement is correct. (2 marks)

$\sqrt{8x} \times \sqrt{2x} = 144$

50.Find 37^2 using identity $(a + b)^2 = a^2 + 2ab + b^2$.

51.Find the square root of $\frac{225}{3136}$.

52.Find the Square root of 36 by Successive subtraction.

<4M>

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

54.2025 students are to be made to stand in a field in such a way that each row contains as many students as the number of rows. Find the number of rows and the number of students in each row.

55.Find the square root of 0.9 up to two places of decimal.

56.Find the square root of 2 correct to two places of decimal.

57.Find the square root of 363609.

58.A general wishing to draw up his 64019 men in the form of a solid square, found that he had 10 men even. Find the number of men in the front row?

<6M>

59.Fill in the blanks

(i) $\sqrt{49 \times 16} = 7 \times \square$

(ii) $\sqrt{9 \times \square} = 6 \times 6$

(iii) $\sqrt{28} = 2 \times \square$

(iv) $\sqrt{\square} = \sqrt{5} \times \sqrt{6} \times \sqrt{11}$

60.A society collected Rs 92.16. Each member collected as many pairs as there were members: How many members were there and how much did each contribute.

61.Find the least number which must be added to 893304 to obtain a perfect square.