Example 29 : Find the length of a diagonal of a rectangle with dimensions 20m by 15m.

The area of a rectangular field whose length is twice its breadth is 2450 m^2. Find the perimeter of the field.

16. Which among 43^2, 67^2, 52^2, 59^2 would end with digit 1?

(a) 43^2 (b) 67^2 (c) 52^2 (d) 59^2

17. A perfect square can never have the following digit in its ones place.

(a) 1 (b) 8 (c) 0 (d) 6

18. Which of the following numbers is not a perfect cube?

(a) 216 (b) 567 (c) 125 (d) 343

19. $\sqrt[3]{1000}$ is equal to

(a) 10 (b) 100 (c) 1

(d) None of these

20. If m is the square of a natural number n, then n is

(a) the square of m

(b) greater than m

(c) equal to m

(d) $\sqrt{m}$

21. A perfect square number having n digits where n is even will have square root with

(a) n+1 digit (b) $\frac{n}{2}$ digit (c) $\frac{n}{3}$ digit (d) $\frac{n+1}{2}$ digit

22. If m is the cube root of n, then n is

(a) m^3 (b) $\sqrt{m}$ (c) $\frac{m}{3}$ (d) $\sqrt[3]{m}$

23. The value of $\sqrt{248+\sqrt{52+\sqrt{144}}}$ is

(a) 14 (b) 12 (c) 16 (d) 13

24. Given that $\sqrt{4096} = 64$, the value of $\sqrt{4096}+\sqrt{40.96}$ is

(a) 74 (b) 60.4 (c) 64.4 (d) 70.4

36. Ones digit in the cube of 38 is _____.

37. The square of 0.7 is _____.

38. The sum of first six odd natural numbers is _____.

39. The digit at the ones place of 57^2 is _____.

40. The sides of a right triangle whose hypotenuse is 17cm are _____ and _____.

41. $\sqrt{1.96}$ = _____.

42. $(1.2)^3$ = _____.

43. The cube of an odd number is always an _____ number.

44. The cube root of a number x is denoted by _____.

45. The least number by which 125 be multiplied to make it a perfect square is _____.

46. The least number by which 72 be multiplied to make it a perfect cube is _____.

47. The least number by which 72 be divided to make it a perfect cube is _____.

48. Cube of a number ending in 7 will end in the digit _____.

96. Using prime factorisation, find the square roots of

(a) 11025 (b) 4761

97. Using prime factorisation, find the cube roots of

(a) 512 (b) 2197

98. Is 176 a perfect square? If not, find the smallest number by which it should be multiplied to get a perfect square.

130. Find three numbers in the ratio 2:3:5, the sum of whose squares is 608.