4. Which of the following will have 4 at the units place?

(a) 14^2 (b) 62^2 (c) 27^2 (d) 35^2

5. How many natural numbers lie between 5^2 and 6^2?

(a) 9 (b) 10 (c) 11 (d) 12

6. Which of the following cannot be a perfect square?

(a) 841 (b) 529 (c) 198

(d) All of the above

7. The one's digit of the cube of 23 is

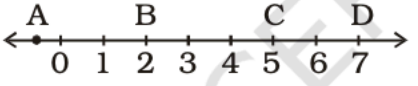
(a) 6 (b) 7 (c) 3 (d) 9

8. A square board has an area of 144 square units. How long is each side of the board?

(a) 11 units (b) 12 units (c) 13 units (d) 14 units

9. Which letter best represents the location of $\sqrt{25}$ on a number line?

(a) A (b) B (c) C (d) D



10. If one member of a pythagorean triplet is 2m, then the other two members are

(a) m, m^2+1

(b) m^2+1, m^2-1

(c) m^2, m^2-1

(d) $m^2, m+1$

11. The sum of successive odd numbers 1, 3, 5, 7, 9, 11, 13 and 15 is

(a) 81 (b) 64 (c) 49 (d) 36

12. The sum of first n odd natural numbers is

(a) $2n+1$ (b) n^2 (c) n^2-1 (d) n^2+1

13. Which of the following numbers is a perfect cube?

(a) 243 (b) 216 (c) 392 (d) 8640

14. The hypotenuse of a right triangle with its legs of lengths $3x \times 4x$ is

(a) $5x$ (b) $7x$ (c) $16x$ (d) $25x$

15. The next two numbers in the number pattern 1, 4, 9, 16, 25 ... are

(a)35, 48 (b) 36, 49 (c) 36, 48 (d) 35,49

(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

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 _____.

94. Can a right triangle with sides 6cm, 10cm and 8cm be formed? Give reason.

95. Write the Pythagorean triplet whose one of the numbers is 4.

106. What is the least number that should be added to 6200 to make it a perfect square?

107. Find the least number of four digits that is a perfect square.

108. Find the greatest number of three digits that is a perfect square.

137. $\left\{\left(6^2+\left(8^2\right)^{\frac{1}{2}}\right)\right\}^3$

138. A perfect square number has four digits, none of which is zero. The digits from left to right have values that are: even, even, odd, even. Find the number.

139. Put three different numbers in the circles so that when you add the numbers at the end of each line you always get a perfect square.