

# Square Roots AND Cube Roots

1. (i)  $(111)^2 = ?$  (ii)  $(1111)^2 = ?$  (xiii)  $\sqrt[3]{1092727} = ?$  (xiv)  $\sqrt[3]{1520875} = ?$   
 (iii)  $(45)^2 = ?$  (iv)  $(65)^2 = ?$  (xv)  $\sqrt[3]{1225043} = ?$  (xvi)  $\sqrt[3]{1560896} = ?$   
 (v)  $(85)^2 = ?$  (vi)  $(95)^2 = ?$  (xvii)  $\sqrt[3]{2628072} = ?$   
 (vii)  $(47)^2 = ?$  (viii)  $(46)^2 = ?$  5. If  $\sqrt{256} \div \sqrt{x} = 2$ , then x is equal to:  
 (ix)  $(49)^2 = ?$  (x)  $(38)^2 = ?$  (a) 64 (b) 128  
 (xi)  $(36)^2 = ?$  (xii)  $(34)^2 = ?$  (c) 512 (d) 1024  
 (xiii)  $(54)^2 = ?$  (xiv)  $(57)^2 = ?$  6. Given that  $\sqrt{4096} = 64$ , the value of  
 (xv)  $(62)^2 = ?$  (xvi)  $(67)^2 = ?$   $\sqrt{4096} + \sqrt{40.96} + \sqrt{.004096}$  is:  
 (xvii)  $(53)^2 = ?$  (a) 70.4 (b) 70.464  
 (c) 71.104 (d) 71.4
2. (i)  $(99)^2 = ?$  (ii)  $(999)^2 = ?$  7.  $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$   
 (iii)  $(107)^2 = ?$  (iv)  $(113)^2 = ?$  (a) 14 (b) 16  
 (v)  $(106)^2 = ?$  (vi)  $(93)^2 = ?$  (c) 16.6 (d) 18.8  
 (vii)  $(87)^2 = ?$  (viii)  $(84)^2 = ?$  8.  $\frac{338}{169} \times \frac{\sqrt{576}}{12} \times \frac{\sqrt{256}}{8} = ?$   
 (a) 8 (b) 12  
 (c) 16 (d) 32
3. (i)  $\sqrt{7921} = ?$  (ii)  $\sqrt{4489} = ?$  9. If  $\sqrt{\frac{x}{169}} = \frac{54}{39}$ , then x is equal to:  
 (iii)  $\sqrt{9216} = ?$  (iv)  $\sqrt{6889} = ?$  (a) 108 (b) 324  
 (v)  $\sqrt{3481} = ?$  (vi)  $\sqrt{12544} = ?$  (c) 2916 (d) 4800  
 (vii)  $\sqrt{17956} = ?$  (viii)  $\sqrt{32041} = ?$  10. If  $\sqrt{\left(1 + \frac{27}{169}\right)} = \left(1 + \frac{x}{13}\right)$ , then x equal to:  
 (ix)  $\sqrt{45369} = ?$  (x)  $\sqrt{56169} = ?$  (a) 1 (b) 3  
 (xi)  $\sqrt{58081} = ?$  (xii)  $\sqrt{63504} = ?$  (c) 5 (d) 7  
 (xiii)  $\sqrt{84681} = ?$
4. (i)  $\sqrt[3]{185193} = ?$  (ii)  $\sqrt[3]{226981} = ?$  11. If  $\sqrt{15625} = 125$ , then the value of  
 (iii)  $\sqrt[3]{474522} = ?$  (iv)  $\sqrt[3]{551368} = ?$   $\sqrt{15625} + \sqrt{156.25} + \sqrt{1.5625}$  is:  
 (v)  $\sqrt[3]{912673} = ?$  (vi)  $\sqrt[3]{592704} = ?$  (a) 1.3875 (b) 13.875  
 (vii)  $\sqrt[3]{941192} = ?$  (viii)  $\sqrt[3]{250047} = ?$  (c) 138.75 (d) 156.25  
 (ix)  $\sqrt[3]{1442897} = ?$  (x)  $\sqrt[3]{2048383} = ?$  12.  $\sqrt{1\frac{9}{16}} = ?$   
 (xi)  $\sqrt[3]{1481544} = ?$  (xii)  $\sqrt[3]{1601613} = ?$  (a)  $1\frac{3}{4}$  (b)  $1\frac{1}{4}$

- (c) 1.125 (d) None of these
13. If  $\sqrt{2^n} = 64$ , then the value of n is:  
 (a) 2 (b) 4  
 (c) 6 (d) 12
14. If  $\sqrt{3} = 1.732$  and  $\sqrt{2} = 1.414$  the value of  $\frac{1}{\sqrt{3} + \sqrt{2}}$  is:  
 (a) 0.064 (b) 0.308  
 (c) 0.318 (d) 2.146
15.  $\frac{\sqrt{32} + \sqrt{48}}{\sqrt{8} + \sqrt{12}} = ?$   
 (a)  $\sqrt{2}$  (b) 2  
 (c) 4 (d) 8
16.  $\sqrt{\frac{4}{3}} - \sqrt{\frac{3}{4}} = ?$   
 (a)  $\frac{1}{2\sqrt{3}}$  (b)  $\frac{1}{\sqrt{3}}$   
 (c) 1 (d)  $\frac{5\sqrt{3}}{6}$
17. The least perfect square number divisible by 3, 4, 5, 6, 8 is:  
 (a) 900 (b) 1200  
 (c) 2500 (d) 3600
18. If  $\sqrt{2401} = \sqrt{7^x}$ , then the value of the x is:  
 (a) 3 (b) 4  
 (c) 5 (d) 6
19. What smallest number must be added to 269 to make it a perfect square:  
 (a) 31 (b) 16  
 (c) 7 (d) 20
20.  $\frac{\sqrt{24} + \sqrt{216}}{\sqrt{96}} = ?$   
 (a)  $2\sqrt{6}$  (b)  $6\sqrt{2}$   
 (c) 2 (d)  $\frac{2}{\sqrt{6}}$
21. A gardner wants to plant 17956 trees and arranges them in such a way that there are as many rows as there are trees in a row. The number of trees in a row is:  
 (a) 144 (b) 136  
 (c) 154 (d) 134
22.  $\sqrt[3]{1 - \frac{91}{216}} = ?$   
 (a)  $1 - \frac{5}{6}$  (b)  $\frac{5}{6}$   
 (c)  $1 - \frac{\sqrt[3]{91}}{6}$  (d) None of these
23. What is the smallest number by which 3600 be dividved to make it a perfect cube?  
 (a) 9 (b) 50  
 (c) 300 (d) 450
24. The difference of the squares of two consecutice even integers is divisible by which of the following integers?  
 (a) 3 (b) 4  
 (c) 6 (d) 7
25. The difference of the squares of two consecutice odd integers is divisible by which of the following integers?  
 (a) 3 (b) 6  
 (c) 7 (d) 8
26. Which one of the following cannot be the square of a natural number?  
 (a) 30976 (b) 75625  
 (c) 28561 (d) 143642
27. Which one of the following cannot be the square of a natural number?  
 (a) 32761 (b) 81225  
 (c) 42437 (d) 20164
28.  $\sqrt{4 + \sqrt{21 + \sqrt{13 + \sqrt{19 + \sqrt{64}}}}}$  का मान है-  
 (a) 3 (b) 9  
 (c) 7 (d) 5
29.  $\sqrt{134 + \sqrt{86 + \sqrt{196}}}$  का मान है-  
 (a) 14 (b) 16  
 (c) 12 (d) 18
30.  $\frac{\sqrt{4} + \sqrt{3}}{\sqrt{4} - \sqrt{3}} + \frac{\sqrt{4} - \sqrt{3}}{\sqrt{4} + \sqrt{3}}$  बराबर होगा-  
 (a)  $2\sqrt{4} - 3\sqrt{3}$  (b)  $2\sqrt{4} + 3\sqrt{3}$   
 (c) 7 (d) 4

# ANSWERS

|                |               |               |              |              |         |
|----------------|---------------|---------------|--------------|--------------|---------|
| 1.(i) (12321)  | (xiii) (2916) | (viii) (7056) | (xii) (252)  | (xi) (114)   | 14. (c) |
| (ii) (1234321) | (xiv) (3249)  | 3.(i) (89)    | (xiii) (291) | (xii) (117)  | 15. (b) |
| (iii) (2025)   | (xv) (3844)   | (ii) (67)     | 4.(i) (57)   | (xiii) (103) | 16. (a) |
| (iv) (4225)    | (xvi) (4489)  | (iii) (96)    | (ii) (61)    | (xiv) (115)  | 17. (b) |
| (v) (7225)     | (xvii) (2809) | (iv) (83)     | (iii) (78)   | (xv) (117)   | 18. (b) |
| (vi) (9025)    | 2.(i) (9801)  | (v) (59)      | (iv) (82)    | (xvi) (116)  | 19. (d) |
| (vii) (2209)   | (ii) (998001) | (vi) (112)    | (v) (97)     | (xvii) (138) | 20. (c) |
| (viii) (2116)  | (iii) (11449) | (vii) (134)   | (vi) (84)    | 5. (a)       | 21. (d) |
| (ix) (2401)    | (iv) (12769)  | (viii) (179)  | (vii) (98)   | 6. (b)       | 22. (b) |
| (x) (1444)     | (v) (11236)   | (ix) (213)    | (viii) (63)  | 7. (b)       | 23. (d) |
| (xi) (1296)    | (vi) (8649)   | (x) (237)     | (ix) (113)   | 8. (a)       | 24. (b) |
| (xii) (1156)   | (vii) (7569)  | (xi) (241)    | (x) (127)    | 9. (b)       | 25. (d) |
|                |               |               |              | 10. (a)      | 26. (d) |
|                |               |               |              | 11. (c)      | 27. (c) |
|                |               |               |              | 12. (b)      | 28. (a) |
|                |               |               |              | 13. (d)      | 29. (c) |
|                |               |               |              |              | 30. (c) |