

Ravi Maths Tuition Centre

Cubes And Cube Roots

8th Standard

Mathematics

70 x 1 = 70

- 1) The one's digit of the cube of 23 is
(a) 3 (b) 6 (c) 7
- 2) Which of the following number is a perfect cube?
(a) 243 (b) 512 (c) 392
- 3) Which of the following numbers is not a perfect cube?
(a) 216 (b) 343 (c) 125 (d) 667
- 4) $\sqrt[3]{1000}$ is equal to
(a) 10 (b) 100 (c) 1 (d) None of these
- 5) If m is the cube root of n, then n is
(a) m^2 (b) \sqrt{m} (c) $\frac{n}{3}$ (d) m^3
- 6) The cube of 0.08 is
(a) 0.000512 (b) 0.0512 (c) 0.512 (d) 5.12
- 7) The cube root of $\frac{-64}{125}$ is
(a) $\frac{8}{5}$ (b) $\frac{-8}{5}$ (c) $\frac{-4}{5}$ (d) $\frac{5}{-8}$
- 8) Which of the following is the cube of an even natural number?
(a) 1331 (b) 4913 (c) 3375 (d) 1728
- 9) The smallest number by which 841 be multiplied so that the product becomes a perfect cube is
(a) 29 (b) 27 (c) 25 (d) 23
- 10) The value of $\sqrt[3]{512} \times \sqrt[3]{-27}$ is
(a) 24 (b) -24 (c) 48 (d) -48
- 11) Which of the following is a correct statement?
(a) cube of a negative number is always positive.
(b) cube of a negative number is always negative.
(c) cube of a negative number may be positive or negative. (d) all of the above.
- 12) If the digits in ones place of number is 2, then the ending digits of its cube will be:
(a) 2 (b) 4 (c) 6 (d) 8
- 13) If the digit in ones place of a number is 3, then the ending of its cube will be:
(a) 3 (b) 6 (c) 7 (d) 9
- 14) If the digit in ones place of number is 6, then its cube will end with the digits:
(a) 6 (b) 3 (c) 2 (d) none of these.
- 15) The volume of a cubical box is 64 cm^3 . Which of the following is the side of the box?
(a) 2 cm (b) 4 cm (c) 6 cm (d) 8 cm
- 16) Which of the following is a perfect cube?
(a) 10,000 (b) 243 (c) 343 (d) 270000

17) If a number is doubled, then which of the following is a correct statement?

- (a) its cube is two times the cube of the given number
- (b) its cube is three times the cube of the given number
- (c) its cube is six times the cube of the given number
- (d) its cube is eight times the cube of the given number.

18) Which of the following is equal to its own cube?

- (a) -1 (b) -2 (c) -3 (d) -9

19) Which of the following is the cube root of 27000?

- (a) 30 (b) 300 (c) 3000 (d) none of these

20) Which of the following is the cube root of $\frac{-64}{343}$?

- (a) $\frac{7}{4}$ (b) $\frac{-7}{4}$ (c) $\frac{4}{7}$ (d) $\frac{-4}{7}$

21) Which of the following numbers is a perfect cube?

- (a) 125 (b) 36 (c) 75 (d) 100

22) Which of the following numbers is a cube number?

- (a) 1000 (b) 100 (c) 400 (d) 600

23) Which of the following numbers is not a perfect cube?

- (a) 1331 (b) 343 (c) 512 (d) 100

24) Which of the following numbers is not a cube number?

- (a) 10000 (b) 64 (c) 3125 (d) 729

25) The cube of an odd natural number is

- (a) even (b) odd (c) may be even, may be odd (d) prime number.

26) The cube of an even natural number is

- (a) even (b) odd (c) may be even, may be odd (d) prime number.

27) The one's digit of the cube of the number 111 is

- (a) 1 (b) 2 (c) 3 (d) 9

28) The one's digit of the cube of the number 242 is

- (a) 2 (b) 4 (c) 6 (d) 8

29) The one's digit of the cube of the number 123 is

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

30) The one's digit of the cube of the number 144 is

- (a) 1 (b) 2 (c) 3 (d) 4

31) The one's digit of the cube of the number 50 is

- (a) 1 (b) 0 (c) 5 (d) 4

32) The one's digit of the cube of the number 326 is

- (a) 2 (b) 3 (c) 6 (d) 4

33) The one's digit of the cube of the number 325 is

- (a) 2 (b) 5 (c) 3 (d) 6

34) The one's digit of the cube of the number 347 is

- (a) 3 (b) 4 (c) 7 (d) 1

35) The one's digit of the cube of the number 68 is

- (a) 1 (b) 2 (c) 6 (d) 8

36) The one's digit of the cube of the number 249 is

- (a) 2 (b) 4 (c) 9 (d) 1

- 37) What is the one's digit in the cube root of the cube number 1331?
(a) 1 (b) 2 (c) 3 (d) 4
- 38) What is the one's digit in the cube root of the cube number 1000000?
(a) 0 (b) 1 (c) 2 (d) 9
- 39) What is the one's digit in the cube root of the cube number 1728?
(a) 1 (b) 2 (c) 3 (d) 9
- 40) What is the one's digit in the cube root of the cube number 2197?
(a) 1 (b) 2 (c) 3 (d) 7
- 41) What is the one's digit in the cube root of the cube number 2744?
(a) 1 (b) 2 (c) 3 (d) 4
- 42) What is the one's digit in the cube root of the cube number 3375?
(a) 2 (b) 3 (c) 5 (d) 4
- 43) What is the one's digit in the cube root of the cube number 4096?
(a) 2 (b) 6 (c) 4 (d) 9
- 44) What is the one's digit in the cube root of the cube number 4913?
(a) 7 (b) 9 (c) 3 (d) 6
- 45) What is the one's digit in the cube root of the cube number 5832?
(a) 2 (b) 4 (c) 6 (d) 8
- 46) What is the one's digit in the cube root of the cube number 6859?
(a) 7 (b) 8 (c) 9 (d) 6
- 47) What is the one's digit in the cube root of the cube number 8000?
(a) 0 (b) 2 (c) 4 (d) 8
- 48) The number of zeroes at the end of the cube of the number 20 is
(a) 1 (b) 2 (c) 3 (d) 6
- 49) The number of zeroes at the end of the cube root of the cube number 1000 is
(a) 1 (b) 2 (c) 3 (d) 4
- 50) The number of zeroes at the end of the cube of the number 100 is
(a) 1 (b) 2 (c) 4 (d) 6
- 51) The number of zeroes at the end of the cube root of the cube number 8000000 is
(a) 1 (b) 2 (c) 3 (d) 6
- 52) Find the smallest number by which the number 108 must be multiplied to obtain a perfect cube.
(a) 2 (b) 3 (c) 4 (d) 5
- 53) Find the smallest number by which the number 250 must be divided to obtain a perfect cube.
(a) 2 (b) 3 (c) 4 (d) 5
- 54) Find the smallest number by which the number 72 must be multiplied to obtain a perfect cube.
(a) 2 (b) 3 (c) 4 (d) 6
- 55) Find the smallest number by which the number 375 must be divided to obtain a perfect cube.
(a) 2 (b) 3 (c) 5 (d) 4
- 56) Find the smallest number by which the number 100 must be multiplied to obtain a perfect cube.
(a) 5 (b) 2 (c) 4 (d) 10

- 57) Find the smallest number by which the number 10000 must be divided to obtain a perfect cube.
(a) 2 (b) 5 (c) 10 (d) 100
- 58) Find the smallest number by which the number 200 must be multiplied to obtain a perfect cube.
(a) 2 (b) 10 (c) 5 (d) 100
- 59) Find the smallest number by which the number 625 must be divided to obtain perfect cube.
(a) 2 (b) 10 (c) 5 (d) 100
- 60) Find the smallest number by which the number 128 must be multiplied to obtain a perfect cube.
(a) 2 (b) 4 (c) 3 (d) 8
- 61) Find the smallest number by which the number 256 must be divided to obtain a perfect cube.
(a) 2 (b) 4 (c) 3 (d) 8
- 62) Find the smallest number by which the number 36 must be multiplied to obtain a perfect cube.
(a) 6 (b) 2 (c) 3 (d) 4
- 63) Find the smallest number by which the number 1296 must be divided to obtain a perfect cube.
(a) 6 (b) 2 (c) 4 (d) 3
- 64) Find the smallest number by which the number 392 must be multiplied to obtain a perfect cube.
(a) 3 (b) 5 (c) 7 (d) 6
- 65) Find the smallest number by which the number 2401 must be divided to obtain a perfect cube.
(a) 7 (b) 6 (c) 5 (d) 9
- 66) Find the smallest number by which the number 121 must be multiplied to obtain a perfect cube.
(a) 7 (b) 9 (c) 11 (d) 5
- 67) Find the smallest number by which the number 88 must be divided to obtain a perfect cube.
(a) 11 (b) 5 (c) 7 (d) 9
- 68) The volume of a cube is 64 cm^3 . The edge of the cube is
(a) 4 cm (b) 8 cm (c) 16 cm (d) 6 cm
- 69) Apala makes a cuboid of plasticine of sides 5 cm, 4 cm, 2 cm. How many such cuboids will be needed to form a cube?
(a) 20 (b) 25 (c) 10 (d) 16
- 70) Which of the following is false?
(a) Cube of any odd number is odd (b) A perfect cube does not end with two zeroes.
(c) The cube of a single digit number may be a single digit number.
(d) There is no perfect cube which ends with 8.
- $10 \times 1 = 10$
- 71) There are _____ perfect cubes between 1 and 1000.
- 72) The cube of 90 will have _____ zeroes.
- 73) $1 \text{ m}^3 = \text{_____ cm}^3$.
- 74) One's digit in the cube of 27 is _____

75) $(1.2)^3 = \underline{\hspace{2cm}}$

76) The cube root of a number x is denoted by $\underline{\hspace{2cm}}$

77) The least number by which 250 is multiplied to make it a perfect cube is $\underline{\hspace{2cm}}$

78) The least number by which 72 is multiplied to make it a perfect cube is $\underline{\hspace{2cm}}$

79) The least number by which 72 is divided to make it a perfect cube is $\underline{\hspace{2cm}}$

80) Cube of a number ending in 7 will end in the digit $\underline{\hspace{2cm}}$

$$15 \times 1 = 15$$

81) Cube of any odd number is even.

(a) True (b) False

82) A perfect cube does not end with two zeroes.

(a) True (b) False

83) If square of a number ends with 5, then its cube ends with 25.

(a) True (b) False

84) There is no perfect cube which ends with 8.

(a) True (b) False

85) The cube of a two digits number may be a three digits number.

(a) True (b) False

86) The cube of a two digits number may have seven or more digits.

(a) True (b) False

87) The cube of a single digit number may be a single digit number.

(a) True (b) False

88) The cube of 0.4 is 0.064.

(a) False (b) True

89) There are five perfect cubes between 1 to 100

(a) True (b) False

90) If a^2 ends in 5, then a^3 ends in 25.

(a) True (b) False

91) If a^2 ends in 9, then a^3 ends in 7.

(a) True (b) False

92) Cube of an odd number is odd.

(a) False (b) True

93) 999 is a perfect cube.

(a) True (b) False

94) Cube roots of 8 are +2 and -2.

(a) True (b) False

95) $\sqrt[3]{8 + 27} = \sqrt[3]{8} + \sqrt[3]{27}$

(a) True (b) False

$$8 \times 1 = 8$$

96) Cube of 26 is (1) 4

97) Cube root of 21952 (2) 7

98) $(\sqrt[3]{125}) + (\sqrt[2]{625})^3$ (3) 3

99) $(\sqrt[2]{25})^3 + \sqrt[3]{6859}$ (4) 17576

100) Each prime factor of a perfect cube appear $\underline{\hspace{2cm}}$ times in its cube (5) 10

101) If the digit in the ones place of a number is 3, then the digit in the ones place of its cube is $\underline{\hspace{2cm}}$ (6) 15630

- 102) The volume of a cubical box is 64cm^3 . Its side is _____ cm. (7) 28
 103) There are _____ perfect cubes from 1 to 1000. (8) 144

$$4 \times 1 = 4$$

- 104) Which 4-digit (least number) is a perfect cube?
 105) Is the cube of a negative number always negative?
 106) Is the cube of an even number always even?
 107) Which of the following is a perfect cube?
 10,00,00, 225, 343, 270000

$$109 \times 2 = 218$$

- 108) Find the one's digit of the cube of each of the following numbers.
 3331
 109) Find the one's digit of the cube of each of the following numbers.
 8888
 110) Find the one's digit of the cube of each of the following numbers.
 149
 111) Find the one's digit of the cube of each of the following numbers.
 1005
 112) Find the one's digit of the cube of each of the following numbers.
 1024
 113) Find the one's digit of the cube of each of the following numbers.
 77
 114) Find the one's digit of the cube of each of the following numbers.
 5022
 115) Find the one's digit of the cube of each of the following numbers.
 53

- 116) $1 = 1 = 1^3$
 $3 + 5 = 8 = 2^3$
 $7 + 9 + 11 = 27 = 3^3$
 $13 + 15 + 17 + 19 = 64 = 4^3$
 $21 + 23 + 25 + 27 + 29 = 125 = 5^3$
 Express the following numbers as the sum of odd numbers using the above pattern.
 6^3

- 117) $1 = 1 = 1^3$
 $3 + 5 = 8 = 2^3$
 $7 + 9 + 11 = 27 = 3^3$
 $13 + 15 + 17 + 19 = 64 = 4^3$
 $21 + 23 + 25 + 27 + 29 = 125 = 5^3$
 Express the following numbers as the sum of odd numbers using the above pattern.
 8^3

- 118) $1 = 1 = 1^3$
 $3 + 5 = 8 = 2^3$
 $7 + 9 + 11 = 27 = 3^3$
 $13 + 15 + 17 + 19 = 64 = 4^3$
 $21 + 23 + 25 + 27 + 29 = 125 = 5^3$
 Express the following numbers as the sum of odd numbers using the above pattern.
 7^3

- 119) Which of the following are perfect cubes?
 400
 120) Which of the following are perfect cubes?
 3375
 121) Which of the following are perfect cubes?
 8000

122) Which of the following are perfect cubes?

15625

123) Which of the following are perfect cubes?

9000

124) Which of the following are perfect cubes?

6859

125) Which of the following are perfect cubes?

2025

126) Which of the following are perfect cubes?

10648

127) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

2700

128) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

16000

129) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

64000

130) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

900

131) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

125000

132) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

36000

133) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

21600

134) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

10000

135) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

27000000

136) Check which of the following are perfect cubes. What pattern do you observe in these perfect cubes?

1000

137) Which of the following numbers are not perfect cubes?

216

138) Which of the following numbers are not perfect cubes?

128

139) Which of the following numbers are not perfect cubes?

1000

140) Which of the following numbers are not perfect cubes?

100

141) Which of the following numbers are not perfect cubes?

46656

142) Find the smallest number by which each of the following numbers must be multiplied to obtain a perfect cube.

243

- 143) Find the smallest number by which each of the following numbers must be multiplied to obtain a perfect cube.
256
- 144) Find the smallest number by which each of the following numbers must be multiplied to obtain a perfect cube.
72
- 145) Find the smallest number by which each of the following numbers must be multiplied to obtain a perfect cube.
675
- 146) Find the smallest number by which each of the following numbers must be multiplied to obtain a perfect cube.
100
- 147) Find the smallest number by which each of the following numbers must be divided to obtain a perfect cube.
81
- 148) Find the smallest number by which each of the following numbers must be divided to obtain a perfect cube.
128
- 149) Find the smallest number by which each of the following numbers must be divided to obtain a perfect cube.
135
- 150) Find the smallest number by which each of the following numbers must be divided to obtain a perfect cube.
192
- 151) Find the smallest number by which each of the following numbers must be divided to obtain a perfect cube.
704
- 152) Parikshit makes a cuboid of plasticine of sides 5 cm, 2 cm and 5 cm. How many such cuboids will he need to form a cube?
- 153) State true or false for any integer m , $m^2 < m^3$. Why?
- 154) Find the cube root of each of the following numbers by prime factorisation method.
64
- 155) Find the cube root of each of the following numbers by prime factorisation method.
512
- 156) Find the cube root of each of the following numbers by prime factorisation method.
10648
- 157) Find the cube root of each of the following numbers by prime factorisation method.
27000
- 158) Find the cube root of each of the following numbers by prime factorisation method.
15625
- 159) Find the cube root of each of the following numbers by prime factorisation method.
13824
- 160) Find the cube root of each of the following numbers by prime factorisation method.
110592
- 161) Find the cube root of each of the following numbers by prime factorisation method.
46656
- 162) Find the cube root of each of the following numbers by prime factorisation method.
175616
- 163) Find the cube root of each of the following numbers by prime factorisation method.
91125
- 164) Is 243 a perfect cube?
- 165) Is 392 a perfect cube? If not, find the smallest natural number by which it must be multiplied so that the product is a perfect cube.

- 166) Is 53240 a perfect cube? If not, then by which smallest natural number should 53240 be divided so that the quotient is a perfect cube?
- 167) Is 1188 a perfect cube? If not, by which smallest natural number should 1188 be divided so that the quotient is a perfect cube?
- 168) Is 2744 a perfect cube?
- 169) Hardy-Ramanujan number 1729 is the smallest Hardy-Ramanujan number. There are infinitely many such numbers. Few are 4104 (2,16; 9,15), 13832 (18, 20; 2, 24). Check it with the numbers given in the brackets.
- 170) Complete the following cubes of numbers 1 to 10.

NUMBER	CUBE
1	$1^3=1$
2	$2^3=8$
3	$3^3=27$
4	$4^3=$
5	$5^3=$
6	$6^3=$
7	$7^3=$
8	$8^3=$
9	$9^3=$
10	10^3

- 171) Consider the following pattern.
 $2^3-1^3=1+2 \times 1 \times 3$, $3^3-2^3=1+3 \times 2 \times 3$, $4^3-3^3=1+4 \times 3 \times 3$
 Using the above pattern, find the value of the following:
 7^3-6^3
- 172) Consider the following pattern.
 $2^3-1^3=1+2 \times 1 \times 3$, $3^3-2^3=1+3 \times 2 \times 3$, $4^3-3^3=1+4 \times 3 \times 3$
 Using the above pattern, find the value of the following:
 12^3-11^3
- 173) Consider the following pattern.
 $2^3-1^3=1+2 \times 1 \times 3$, $3^3-2^3=1+3 \times 2 \times 3$, $4^3-3^3=1+4 \times 3 \times 3$
 Using the above pattern, find the value of the following:
 20^3-19^3
- 174) Consider the following pattern.
 $2^3-1^3=1+2 \times 1 \times 3$, $3^3-2^3=1+3 \times 2 \times 3$, $4^3-3^3=1+4 \times 3 \times 3$
 Using the above pattern, find the value of the following:
 51^3-50^3
- 175) Is 646 a perfect cube?
- 176) Find the cube of 17.
- 177) Is 1188 a perfect cube? If not, find the smallest number by which 1188 must be multiplied to get a perfect cube.
- 178) Show that $\frac{-125}{5832}$ is a cube of a rational number.
- 179) Find the cube of $5\frac{2}{7}$.
- 180) Find the volume of a cube whose surface area is 216m^2 ?
- 181) Solve, $\{(24^2+7^2)^{1/2}\}^3$
- 182) Find the smallest number by which 3087 must be divided, so that the quotient is a perfect cube.
- 183) Find the unit digit of the cube of the following numbers 1109, 117,565, 390
- 184) Is $\frac{216}{343}$ a cube of rational number?
- 185) Find the cube root of 74088 by prime factorisation method
- 186) Find the cube root of 97336 through estimation.
- 187) Find the cube of the following numbers.

- 188) Find the cube of the following numbers.
17
- 189) Find the cube of the following numbers.
23
- 190) Express 6^3 as the sum of odd numbers.
- 191) Is 150 a perfect cube?
- 192) Find the smallest number by which 256 must be multiplied to obtain a perfect cube.
- 193) Find the cube root of 19683 by factorisation method.
- 194) Check whether 24389 is a perfect cube or not. If yes, then find its cube root.
- 195) Find the cube root of 46656 by estimation method.
- 196) Find the cube root of 1.728.
- 197) The volume of a cubical box is 117.649 m^3 . Find the length of a side of the box.
- 198) Evaluate $\sqrt[3]{1000} + \sqrt[3]{0.008} + \sqrt[3]{0.125}$.
- 199) Solve, $[3^2 + (18^2)^{1/2}]^{1/3}$
- 200) Find the cube root of - 0.512 .
- 201) Which is a perfect cube among following numbers? Also. find its cube root.
12500, 125000, 1250.
- 202) Evaluate $\sqrt[3]{216} - \sqrt[3]{125} + 1$
- 203) Is 9261 a perfect cube? If yes, find that number.
- 204) Find cube root of 74088.
- 205) Can we find the cube root of (-10648)? If yes, then find that integer.
- 206) Find the value of $\sqrt[3]{392} \times \sqrt[3]{448}$.
- 207) Find cube root of 9.261.
- 208) The volume of a cubical box is 13.824 m^3 . then find the length of each side of the box.
- 209) By what number 3087 be multiplied so that the product is a perfect cube? Also, find the cube root of the product.
- 210) Find the smallest number that must be subtracted from 682 to make it a perfect cube.
- 211) Find the smallest number that must be added to 210 so that it becomes a perfect cube.
- 212) Find cube root of $864/1372$.
- 213) Find the cube root of 1728.
- 214) Which of the following are the perfect cubes?
(a) 729
(b) 10,000
(c) 1728
(d) 2817
(e) 6859
(f) 5968
- 215) Which of the following are the cubes of odd numbers?
(a) 1331
(b) 4096
(c) 5832
(d) 8000
(e) 3375
(f) 4913

216) Which of the following are the cubes of even numbers?

- (a) 32768
- (b) 2744
- (c) 2197
- (d) 42875
- (e) 132651
- (f) 21952

$$29 \times 3 = 87$$

217) Is 68600 a perfect cube? If not, find the smallest number by which 68600 must be multiplied to get a perfect cube.

218) Find the cube root of 8000.

219) Find the cube root of 13824 by prime factorisation method.

220) Check whether 21600 is a perfect cube or not.

221) Find the cube root of 614125 through estimation.

222) Using prime factorisation, find the cube root of 5832.

223) If the volume of a cube is 729 cm^3 , then find the length of its side.

224) Find the cube of $(2 + \frac{3}{5})$.

225) Evaluate the following :

$$(0.02)^3$$

226) Evaluate the following :

$$(1\frac{2}{5})^3$$

227) Is 500 a perfect cube?

228) Is 1372 a perfect cube? If not, find the smallest natural number by which 1372 must be multiplied so that the product is a perfect cube.

229) Is 31944 a perfect cube? If not then by which smallest natural number should 31944 be divided so that the quotient is a perfect cube?

230) Show that -1728 is a perfect cube. Also, find the number whose cube is -1728.

231) Is 216 a perfect cube? What is the number whose cube is 216?

232) What is the smallest number by which 288 must be multiplied so that the product is a perfect cube?

233) Find the cube of $\frac{4}{5}$.

234) The volume of a cubical box is 64 cm^3 , What is its side?

235) If the surface area of a cube is 486 cm^2 . Find its volume

236) Is 68600 a perfect cube? If not, find the smallest number by which 68600 must be multiplied to get a perfect cube

237) By prime factorisation, find the cube roots of 3375

238) By prime factorisation, find the cube roots of 74088

239) By prime factorisation, find the cube roots of 1000

240) By prime factorisation, find the cube roots of 1331

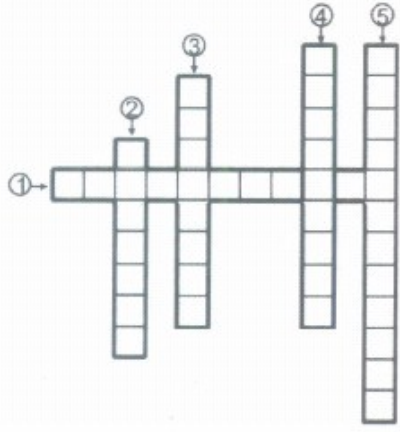
241) Without finding the prime factors, estimate the cube roots of the following cubes: 857375

242) Without finding the prime factors, estimate the cube roots of the following cubes: 12167

243) Without finding the prime factors, estimate the cube roots of the following cubes: 24389

244) Without finding the prime factors, estimate the cube roots of the following cubes: 148877

245) Complete the following crossword puzzle using the given directions for Across [from left to right] and Down [from top to bottom].



Direction:

Across:

(1) The product of a number by itself three times, is called a _____

Down:

(2) Prime factors of a perfect cube can be grouped into complete _____

(3) The reverse process of finding the cube of a number is finding the _____ of that number.

(4) Numbers that are not exactly divisible by 2, are called _____

(5) The factors of a number, that are prime numbers, are called _____ of the number.

$$25 \times 5 = 125$$

246) You are told that 1331 is a perfect cube. Can you guess without factorisation what is its cube root? Similarly, guess the cube roots of 4913, 12167, 32768.

247) Find the cube root of 17576 through estimation

248) A picnic is being planned in a school for Class VII. Girls are 60% of the total number of students and are 18 in number.

The picnic site is 55 km from the school and the transport company is charging at the rate of RS.12 per km. The total cost of refreshments will be RS. 4280.

Find.

1. The ratio of the number of girls to the number of boys in the class?
2. The cost per head if two teachers are also going with the class?
3. If their first stop is at a place 22 km from the school, what per cent of the total distance of 55 km is this? What per cent of the distance is left to be covered?

249) Find the length of each side of a cube, if its volume is 512 cm^3 .

250) Three numbers are in the ratio 1 : 2 : 3 and the sum of their cubes is 4500. Find the numbers.

251) Evaluate $\sqrt[3]{27} + \sqrt[3]{0.008} + \sqrt[3]{0.064}$.

252) Evaluate $\{5^2 + (12^2)^{1/2}\}^3$

253) To collect rain water, Aditya made a cubical tank which can hold 91125 m^3 water. He uses this water for watering the plants of his garden.

- (a) What is the height of the tank?
- (b) What is the value depicted here?

254) Is 9720 a perfect cube? If not, find the smallest number by which, it should be divided to get a perfect cube.

255) Difference of two perfect cubes is 189. If the cube root of the smaller of the two numbers is 3, find the cube root of the larger number.

256) What is the smallest number by which 392 may be divided so that the quotient is a perfect cube?

257) Three numbers are in ratio to one another 2: 3: 4. The sum of their cubes is 33957. Find the numbers.

258) Find the cube root of each of the following:

0.000001

259) Find the cube root of each of the following:

$\frac{343}{0.027}$

- 260) Find the sum of cubes of first four natural numbers.
- 261) Find the smallest number, by which 6788 must be divided so that the quotient is a perfect cube.
- 262) Find the volume of a cube, whose total surface area is 486 cm^2 .
- 263) Show that 0.001728 is the cube of a rational number. Find that rational number whose cube is 0.001728.
- 264) Is 42592 a perfect cube? If not, then by which smallest number should 42592 be divided so that quotient is a perfect cube?
- 265) Which of the following are perfect cube?
i) 8000
ii) 9000
- 266) Show that 46656 is a perfect cube.
- 267) Find the smallest number by which 704 must be divided to obtain a perfect cube.
- 268) Find the cube root of 2197.
- 269) Show that 384 is not a perfect cube
- 270) What is the smallest number by which 648 must be multiplied so that the product is a perfect cube?
