square & square root

1) The value of $\sqrt{\frac{(0.03)^2+(0.21)^2+(0.065)^2}{(0.003)^2+(0.021)^2+(0.0065)^2}}$ is:

a) 10 b) 10^2
c) 0.1 d) 10^3

2) The value of $\sqrt{\frac{(0.1)^2+(0.01)^2+(0.009)^2}{(0.01)^2+(0.001)^2+(0.0009)^2}}$ is:

a) 10 b) 0.1
c) 10^2 d) 0.01

3) The value of $\sqrt{\frac{(6.1)^2+(61.1)^2+(611.1)^2}{(0.61)^2+(6.11)^2\ (61.11)^2}}$ is

a) 1.1 b) 10
c) 0.1 d) 100

4) $\sqrt{\frac{0.009\times0.036\times0.016\times0.08}{0.002\times0.0008\times0.0002}}$ is equal to

a) 36 b) 38
c) 34 d) 39

5) The value of $\frac{0.051\times0.051\times0.051+0.041\times0.041\times0.041}{0.051\times0.051-0.051\times0.041+0.041\times0.041}$ is:

a) 0.092 b) 0.0092
c) 0.92 d) 0.00092

7) The value of $\frac{(75.8)^2-(55.8)^2}{20}$ is:

a) 40 b) 121.6
c) 20 d) 131.6

8) $\frac{(3.63)^2-(2.37)^2}{3.63+2.37}$ is simplified to

a) 1.36 b) 2.26
c) 6 d) 1.26

9) $\frac{(2.644)^2-(2.356)^2}{0.288}$

a) 4 b) 5
c) 1 d) 6

10) $\frac{(3.4567)^2-(3.4533)^2}{0.0034}$

a) 7 b) 6.81
c) 6.91 d) 7.1

11) The value of $\frac{(0.03)^2-(0.01)^2}{0.03-0.01}$ is :

a) 0.004 b) 0.4
c) 0.02 d) 0.04

12) The square root of (272^2 - 128^2) is

a) 200 b) 240
c) 256 d) 144

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13) $\frac{\sqrt{24}+\sqrt{216}}{\sqrt{96}}$ is equal to:

a) $2\sqrt{6}$ b) $4\sqrt{6}$

c) $\frac{2}{\sqrt{6}}$ d) 2

14) The value of $\frac{\sqrt{80}-\sqrt{112}}{\sqrt{45}-\sqrt{63}}$ is :

a) $1\frac{3}{4}$ b) $1\frac{1}{3}$

c) $\frac{3}{4}$ d) $1\frac{7}{9}$

15) $(\sqrt{72}-\sqrt{18})\div\sqrt{12}$ is equal to

a) $\frac{\sqrt{3}}{2}$ b) $\frac{\sqrt{2}}{3}$

c) $\sqrt{6}$ d) $\frac{\sqrt{6}}{2}$

16) The value of $\sqrt{0.000441}$ is equal to :

a) 0.0021 b) 0.021

c) 0.21 d) 0.00021

17) $\sqrt{5+\sqrt{11+\sqrt{19+\sqrt{29+\sqrt{49}}}}}$

a) 9 b) 7 c) 3

18) $\sqrt{1\frac{1}{4}\times\frac{64}{125}\times 1.44}$ is equal to:

a) $\frac{24}{25}$ b) $\frac{23}{25}$

c) $1\frac{1}{25}$ d) $\frac{21}{25}$

19) $\sqrt{\frac{0.081\times0.484}{0.0064\times6.25}}$ is equal to :

a) 0.9 b) 99

c) 9 d) 0.99

20) $\sqrt{\frac{.0.25}{0.0009}}\times\sqrt{\frac{0.09}{0.36}}$ is equal to :

a) $7\frac{1}{6}$ b) $7\frac{1}{3}$

c) $\frac{5}{6}$ d) $8\frac{1}{3}$

21) The value of $\frac{4-\sqrt{0.04}}{4+\sqrt{0.4}}$ is close to :

a) 0.8 b) 1.0

c) 0.4 d) 1.4

22) $[\,2\sqrt{54}-6\sqrt{\frac{2}{3}}-\sqrt{96}\,]$ is equal to

a) 1 b) 2

c) 0 d) $\sqrt{6}$

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23) The value of $\frac{\sqrt{0.441}}{\sqrt{0.625}}$ is equal to :

a) 0.84 b) 0.48
c) 0.048 d) 0.084

24) The simplified value of $\sqrt{900} + \sqrt{0.09} - \sqrt{0.000009}$ is:

a) 30.297 b) 30.097
c) 30.27 d) 30.197

25) Assume that $\sqrt{13} = 3.605$ (approximately) $\sqrt{130} = 11.40$ (approximately) Find the value of :

$\sqrt{1.3} + \sqrt{1300} + \sqrt{0.013}$

a) 36.304 b) 37.304
c) 36.164 d) 37.164

26) The square root of $\frac{0.342 \times 0.684}{0.003421 \times 0.000171}$ is:

a) 2500 b) 2000
c) 250 d) 4000

27) What is the square root of 0.09?

a) 0.03 b) 0.003
c) 0.3 d) 3.0

28) The sum of $\sqrt{0.01} + \sqrt{0.81} + \sqrt{1.21} + \sqrt{0.0009}$ is:

a) 2.13 b) 2.03
c) 2.1 d) 2.11

Cube & Cube root

1) The value of $(\sqrt{43 + 152})^3$ is :

a) 3943 b) 4913
c) 4193 d) 4313

2) $(5.5)^3 - (4.5)^3$ is equal to :

a) 75.25 b) 1
c)74.25 d)75

3) $\sqrt[3]{4\frac{12}{125}}$ is equal to :

a) 2.4 b) 1.4
c)1.8 d)1.6

4) $\sqrt[3]{(333)^3 + (333)^3 + (334)^3 - 3 \times 333 \times 333 \times 334}$

Is equal to :

a) 15 b) 12
c) 10 d) 11

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5) The least number, by which 1944 must be multiplied to make the result a perfect cube, is

a) 13 b) 2
c) 6 d) 3

6) $\frac{\sqrt[3]{8}}{\sqrt{16}} \div \sqrt{\frac{100}{49}} \times \sqrt[3]{125}$ is equal to :

a) $\frac{4}{7}$ b) 7
c) $\frac{7}{100}$ d) $1\frac{3}{4}$

7) $\sqrt[3]{\frac{72.9}{0.4096}}$ is equal to :

a) 13.6 b) 0.5625
c) 182 d) 5.625

8) The sum of the squares of 2 numbers is 146 and the square root of one of them is $\sqrt{5}$. The cube of the other number is

a) 1441 b) 1111
c) 1331 d) 1221

9) By what least number should 4320 be multiplied to obtain a number which is a perfect cube?

a) 80 b) 40
c) 60 d) 50

10) Which of the following is a perfect square as well as a cube? 343, 125, 81, or 64

a) 64 b) 81
c) 343 d) 125

11) The sum of the cubes of the numbers 22, –15 and –7 is equal to

a) 0 b) 6930
c) 3 d) 9630

12) The square of a natural number subtracted from its cube is 48. The number is:

a) 4 b) 8
c) 5 d) 6

13) $\sqrt[3]{0.000125}$ is equal to:

a) 0.005 b) 0.5
c) 0.05 d) 0.15

14) If cube root of 175616 is 56, then the value of $\sqrt[3]{175.616} + \sqrt[3]{0.175616} + \sqrt[3]{0.000175616}$ is equal to :

a) 6.116 b) 0.168

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c) 6.216 d) 62.16

15) $(\sqrt[3]{1000} + \sqrt[3]{0.008} - \sqrt[3]{0.125})$ is equal to :

a) 9.9997 b) 9.7

c) 9.997 d) 9.97

16) The least number that must be added to 1720 so as to obtain a perfect cube, is

a) 13 b) 7

c) 11 d) 8

17) The value of $\sqrt[3]{\sqrt{0.000729}}$ is

a) 0.09 b) 0.9

c) 0.03 d) 0.3

18) Sum of digits of the smallest number by which 1440 be multiplied so that it becomes a perfect cube, is

a) 8 b) 4

c) 7 d) 6

19) $\sqrt[3]{1 - \frac{127}{343}}$ is equal to :

a) $1 - \frac{2}{7}$ b) $\frac{5}{9}$

c) $\frac{4}{7}$ d) $1 - \frac{1}{7}$

20) The smallest positive integer n, for which 864n is a perfect cube, is :

a) 4 b) 1

c) 3 d) 2

21) $\sqrt[3]{\sqrt{0.000064}}$ is equal to :

a) 0.2 b) 0.0002

c) 0.02 d) 0.002

22) $\sqrt[3]{15612 + \sqrt{154 + \sqrt{225}}}$ is equal to :

a) 125 b) 15

c) 75 d) 25

23) The value of $\sqrt[3]{\frac{7}{875}}$ is equal to :

a) $\frac{1}{5}$ b) $\frac{1}{3}$

c) $\frac{1}{4}$ d) $\frac{1}{15}$

24) By what least number should 675 be multiplied so as to obtain a perfect cube number ?

a) 40 b) 3

c) 24 d) 5

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25) $\sqrt[3]{\frac{19}{513}}$ is equal to :

a) $\frac{1}{\sqrt{3}}$ b) $\frac{1}{9}$

c) $\frac{1}{\sqrt{27}}$ d) $\frac{1}{3}$

26) $\sqrt[3]{3^n} = 27$ then the value of n is :

a) 3 b) 9

c) 1 d) 6

27) Which smallest number must be added to 710 so that the sum is a perfect cube ?

a) 21 b) 29

c) 11 d) 19

28) The smallest natural number, by which 3000 must be divided to make the quotient a perfect cube, is :

a) 6 b) 3

c) 5 d) 4

29) By which smallest number 1323 must be multiplied, so that it becomes a perfect cube?

a) 7 b) 2

c) 5 d) 3

30) The sum of the digits of the smallest number which, when multiplied by 1800, gives a perfect cube, is :

a) 8 b) 2

c) 6 d) 3

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