

1) Simplify $\sqrt{[(12.2)^2 - (8.1)^2] + [(0.25)^2 + (0.25)(19.95)]}$

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

8) 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

2) Simplification of $\frac{(3.4567)^2 - (3.4533)^2}{0.0034}$ yields the result :

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

9) 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

3) $\sqrt{\frac{0.09 \times 0.036 \times 0.016 \times 0.08}{0.002 \times 0.0008 \times 0.0002}}$ is equal to :

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

10) 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

4) The square root of $(272^2 - 128^2)$ is :

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

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

a) 0.2 b) 0.0002
c) 0.02 d) 0.002

5) 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) $\sqrt{15612 + \sqrt{154 + \sqrt{225}}}$ is equal to :

a) 125 b) 15
c) 75 d) 25

6) The value of $\frac{0.051 \times 0.051 \times 0.051 + 0.041 \times 0.041 \times 0.041}{0.051 \times 0.051 - 0.051 \times 0.041 + 0.041 \times 0.041}$ is:

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

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

a) $\frac{1}{5}$ b) $\frac{1}{3}$
c) $\frac{1}{4}$ d) $\frac{1}{15}$

7) $[2\sqrt{54} - 6\sqrt{\frac{2}{3}} - \sqrt{96}]$ is equal to :

a) 1 b) 2
c) 0 d) $\sqrt{6}$

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

a) 40 b) 3
c) 24 d) 5

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

- a) $\frac{1}{\sqrt{3}}$ b) $\frac{1}{9}$
c) $\frac{1}{\sqrt{27}}$ d) $\frac{1}{3}$

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

- a) 3 b) 9
c) 1 d) 6

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

- a) 21 b) 29
c) 11 d) 19

18) 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

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

- a) 7 b) 2
c) 5 d) 3

20) 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