Basic Maths

DPP-01

1. The value of expression $\frac{1}{4}\left[\left(a + \frac{1}{a}\right)^2 - \left(a - \frac{1}{a}\right)^2\right]$ is

[Ans : 1]

2. What is the value of $\left(\frac{1}{2} \div \frac{1}{2} \times \frac{1}{2} + \frac{1}{2} - \frac{1}{2} + \frac{1}{2} \times \frac{1}{2} \div \frac{1}{2}\right) of \left(\frac{1}{2} + \frac{1}{2}\right)$

[Ans : 1]

3. Simplify $\sqrt{3\frac{33}{64}} \div \sqrt{9\frac{1}{7}} \times 2\sqrt{3\frac{1}{9}}$

[Ans : $2\frac{3}{16}$]

4. $\sqrt[3]{1 - \frac{127}{343}}$ is equal to

[Ans : $1 - \frac{1}{7}$]

5. If $\sqrt[3]{3^n} = 27$, then the value of n is:

[Ans : 9]

6. The value of $(\sqrt{4^3 + 15^2})^3$ is:

[Ans : 4913]

7. $1 + \frac{1}{1 + \frac{1}{5}} = ?$

[Ans : $\frac{11}{6}$]

8. The value of $\dfrac{2\frac{1}{3} - 1\frac{2}{11}}{3 + \frac{1}{3 + \frac{1}{3 + \frac{1}{3}}}}$ is

[Ans : $\frac{38}{109}$]

9. The value of $4 - \dfrac{5}{1 + \frac{1}{3 + \frac{1}{2 + \frac{1}{4}}}}$ is

[Ans : $\frac{1}{8}$]

10. Find the value of $2.8 + (5.2 \div 1.3 \times 2) - 6 \times 3 \div 8 + 2$

[Ans : 10.55]