

Daily Practice Problems-04

1. The length, breadth, and thickness of a block are measured as 125.5 cm, 5.0 cm, and 0.32 cm, respectively. Which one of the measurement is most accurate?
2. The length of a rectangular sheet is 1.5cm and the breadth is 1.203 cm. Find the area of the face of a rectangular sheet to the correct number of significant figures
3. Each side of a cube is measured to be 5.402 cm. Find the total surface area and the volume of the cube in appropriate significant figures.
4. Taking into account the significant figures, what is the value of $9.99\text{m} + 0.0099\text{ m}$?
5. Find the value of the multiplication 3.124×4.576 correct to three significant figures.
6. If the value of resistance is $10.845\ \Omega$ and the value of current is 3.23 A, the potential difference is 35.02935 V. Find its value in significant number.
7. With due regard to significant figures, add the following :
a) 953 and 0.324 b) 953 and 0.625 c) 953.0 and 0.324 d) 953.0 and 0.374
8. With due regard to significant figures, subtract :
a) 0.35 from 7 b) 0.65 from 7.0 c) 0.35 from 7 d) 0.65 from 7.0
9. A diamond weighs 3.71 g. It is put into a box weighing 1.4 Kg. Find the total weight of the box and diamond to the correct number of significant figures.
10. Calculate the area enclosed by a circle of diameter 1.12 m to the correct number of figures.
11. a) Add 3.8×10^{-6} to 4.2×10^{-5} with due regard to significant figures.
b) Subtract 3.2×10^{-6} from 4.7×10^{-4} with due regard to significant figures.
c) Subtract 1.5×10^{-3} from 4.8×10^4 with due regard to significant figures.
12. The length, breadth and thickness of a metal sheet are 4.234 m, 1.005 m and 2.01 cm, respectively. Give the area and volume of the sheet to the correct number of significant figures.

Answers

1. Length
2. 1.8cm^2
3. Total Surface area = 175.1 cm^2 , volume= 157.6 cm^3
4. 10.00 m
5. 14.3
6. 35.0 V
7. a) 953 b) 954 c) 953.3 d) 953.4
8. a) 7 b)6 c) 6.6 d)6.4
9. 1.4 Kg
10. 0.99 m^2
11. a) 4.6×10^{-5} b) 4.7×10^{-4} c) 4.6×10^4
12. Area= 8.72 m^3 , Volume= 0.0855 m^3