

SIGNIFICANT DIGITS (OR) SIGNIFICANT FIGURES -2

RULES:-

1) In multiplication or division, the final result should retain as many significant figures as are there in the original number with the least significant figures.

2) In addition or subtraction, the final result should retain as many decimal places as are there in the number with the least decimal places.

1) Density = $4.237\text{g} / 2.51\text{cm}^3 =$

1.688 1.68 1.69 1.685

2) $30.435\text{ g} + 1.02\text{ g} + 222.7\text{g} =$

254.155 g 254.16 g 254.15 g 254.2 g

3) $30.435\text{ g} - 1.02\text{ g} =$

29.415 g 29.41 g 29.410 g 29.42 g

4) $30.435\text{ kg/m}^3 \times 1.02\text{ m}^3 =$ kg

31.0437 31.043 31.04 31.0

1) $0.307\text{ m} - 0.304\text{ m} =$

0.003 m

3 mm

$3 \times 10^3\text{ m}$

2) $436.32\text{ g} + 227.2\text{ g} + 0.301\text{ g} =$

663.821 g

663.8 g

664 g

3) $76.4 \times 180.4 =$

13800

13783

13,782.56

4) $934.9 \div 0.00455 =$

20500

205472

205472.5

Each side of a cube is measured to be 7.203 m.

What are the total surface area and the volume of the cube to appropriate significant figures?

Ans :

311.299254 m^2 and 373.714754 m^3

311.3 m^2 and 373.7 m^3

373.7 m^3 and 311.3 m^2