Cubes and Cubes Roots Ex 4.5 Q9

**Answer :**

We have:

$250 = 25 \times 100$

$\therefore$ Cube root of 250 would be in the column of $\sqrt[3]{10x}$ against 25.

By the cube root table, we have:

$\sqrt[3]{250} = 6.3$

Thus, the required cube root is 6.3.

Cubes and Cubes Roots Ex 4.5 Q10

**Answer :**

By prime factorisation, we have:

$5112 = 2^3 \times 3^2 \times 71 \Rightarrow \sqrt[3]{5112} = 2 \times \sqrt[3]{9} \times \sqrt[3]{71}$

By the cube root table, we have:

$\sqrt[3]{9} = 2.080 \quad and \quad \sqrt[3]{71} = 4.141$

$\therefore \sqrt[3]{5112} = 2 \times \sqrt[3]{9} \times \sqrt[3]{71} = 2 \times 2.080 \times 4.141 = 17.227$ (upto three decimal places)

Thus, the required cube root is 17.227.

Cubes and Cubes Roots Ex 4.5 Q11

**Answer :**

We have:

$9800 = 98 \times 100$

$\therefore \sqrt[3]{9800} = \sqrt[3]{98 \times 100} = \sqrt[3]{98} \times \sqrt[3]{100}$

By cube root table, we have:

$\sqrt[3]{98} = 4.610 \quad \text{and} \quad \sqrt[3]{100} = 4.642$

$\therefore \sqrt[3]{9800} = \sqrt[3]{98} \times \sqrt[3]{100} = 4.610 \times 4.642 = 21.40$ (upto three decimal places)

Thus, the required cube root is 21.40.

Cubes and Cubes Roots Ex 4.5 Q12

**Answer :**

We have:

$730 < 732 < 740 \Rightarrow \sqrt[3]{730} < \sqrt[3]{732} < \sqrt[3]{740}$

From cube root table, we have:

$\sqrt[3]{730} = 9.004 \text{ and } \sqrt[3]{740} = 9.045$

For the difference (740−730), i.e., 10, the difference in values

$= 9.045 - 9.004 = 0.041$

$\therefore$ For the difference of (732−730), i.e., 2, the difference in values

$= \frac{0.041}{10} \times 2 = 0.0082$

$\therefore \sqrt[3]{732} = 9.004 + 0.008 = 9.012$

********** END **********