

Squares and Square Roots Ex 3.8 Q3

Answer :

Using the long division method:

$$\begin{array}{r} 3.31662 \\ 3 \overline{) 11} \\ \underline{3} 9 \\ 63 200 \\ \underline{3} 189 \\ 661 1100 \\ \underline{1} 661 \\ 6626 43900 \\ \underline{6} 39756 \\ 66326 414400 \\ \underline{6} 397956 \\ 663322 1644400 \\ \underline{2} 1326644 \\ 317756 \end{array}$$

$$\therefore \sqrt{11} = 3.31662$$

Squares and Square Roots Ex 3.8 Q4

Answer :

$$\text{Given: } \sqrt{7} = 2.646$$

$$(i) \sqrt{\frac{144}{7}} = \frac{\sqrt{144}}{\sqrt{7}} = \frac{12}{2.646} = 4.536$$

$$\text{Given: } \sqrt{3} = 1.732$$

$$(ii) \sqrt{\frac{2500}{3}} = \frac{\sqrt{2500}}{\sqrt{3}} = \frac{50}{1.732} = 28.867$$

Squares and Square Roots Ex 3.8 Q5

Answer :

From the given values, we can simplify the expressions in the following manner:

$$(i) \sqrt{\frac{196}{75}} = \frac{14}{5\sqrt{3}} = \frac{14}{5 \times 1.732} = 1.617$$

$$(ii) \sqrt{\frac{400}{63}} = \frac{20}{3\sqrt{7}} = \frac{20}{3 \times 2.646} = 2.520$$

$$(iii) \sqrt{\frac{150}{7}} = \frac{5\sqrt{2} \times \sqrt{3}}{\sqrt{7}} = \frac{5 \times 1.414 \times 1.732}{2.646} = 4.628$$

$$(iv) \sqrt{\frac{256}{5}} = \frac{16}{\sqrt{5}} = \frac{16}{2.236} = 7.155$$

$$(v) \sqrt{\frac{27}{50}} = \frac{3\sqrt{3}}{5\sqrt{2}} = \frac{3 \times 1.732}{5 \times 1.414} = 0.735$$

***** END *****