Squares and Square Roots Ex 3.8 Q2

**Answer :**

| | 3.46508 |
|---|---|
| 3 | 12.0068 |
| 3 | 9 |
| 64 | 300 |
| 4 | 256 |
| 686 | 4468 |
| 6 | 4116 |
| 6925 | 35200 |
| 5 | 34625 |
| 693008 | 5750000 |
| 8 | 5544064 |
| | 205936 |

$\therefore \sqrt{12.0068} = 3.46508$

We can round it off to four decimal places, i.e. 3.4651.

Squares and Square Roots Ex 3.8 Q3

**Answer :**

Using the long division method:

| | |
|---|---|
| | 3.31662 |
| 3 | 11 |
| 3 | 9 |
| 63 | 200 |
| 3 | 189 |
| 661 | 1100 |
| 1 | 661 |
| 6626 | 43900 |
| 6 | 39756 |
| 66326 | 414400 |
| 6 | 397956 |
| 663322 | 1644400 |
| 2 | 1326644 |
| | 317756 |

$\therefore \sqrt{11} = 3.31662$

Squares and Square Roots Ex 3.8 Q4

**Answer :**

Given: $\sqrt{7} = 2.646$

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

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:

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

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

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

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

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

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