



Exercise 3F

Q1

**Answer :**

Using long division method:

$$\begin{array}{r} 1.3 \\ 1 \overline{) 1.69} \\ \underline{1} \phantom{00} \\ 23 \phantom{00} \\ \underline{3} \phantom{00} \\ 0 \end{array}$$

$$\therefore \sqrt{1.69} = 1.3$$

Q2

**Answer :**

Using long division method:

$$\begin{array}{r} 5.8 \\ \hline \end{array}$$

$$\begin{array}{r|l}
 5 & 33.64 \\
 5 & 25 \\
 \hline
 108 & 864 \\
 8 & 864 \\
 \hline
 & 0
 \end{array}$$

$$\therefore \sqrt{33.64} = 5.8$$

Q3

**Answer :**

Using long division method:

$$\begin{array}{r|l}
 12.5 & \\
 1 & \overline{1\ 56.25} \\
 1 & 1 \\
 \hline
 22 & 56 \\
 2 & 44 \\
 \hline
 245 & 1225 \\
 5 & 1225 \\
 \hline
 & 0
 \end{array}$$

$$\therefore \sqrt{156.25} = 12.5$$

Q4

**Answer :**

Using long division method:

$$\begin{array}{r} 8.7 \\ 8 \overline{) 75.69} \\ \underline{8 \phantom{0} 64} \phantom{0} \\ 167 \phantom{0} 1169 \\ \underline{7 \phantom{0} 1169} \phantom{0} \\ 0 \end{array}$$

$$\therefore \sqrt{75.69} = 8.7$$

Q5

**Answer :**

Using long division method:

$$\begin{array}{r} 3.14 \\ 3 \overline{) 9.85 \, 96} \\ \underline{3 \phantom{0} 9} \phantom{0} \\ 61 \phantom{0} 85 \\ \underline{1 \phantom{0} 61} \phantom{0} \\ 624 \phantom{0} 2496 \\ \underline{4 \phantom{0} 2496} \phantom{0} \\ 0 \end{array}$$

$$\therefore \sqrt{9.8596} = 3.14$$

Q6

**Answer :**

Using long division method:

$$\begin{array}{r} 3.17 \\ 3 \overline{) 10.0489} \\ \underline{3} \phantom{00} 9 \phantom{00} \\ 61 \phantom{00} 104 \phantom{00} \\ \underline{1} \phantom{00} 61 \phantom{00} \\ 627 \phantom{00} 4389 \phantom{00} \\ \underline{7} \phantom{00} 4389 \phantom{00} \\ \phantom{00} 0 \end{array}$$

$$\therefore \sqrt{10.0489} = 3.17$$

Q7

**Answer :**

Using long division method:

$$\begin{array}{r} 1.04 \\ 1 \overline{) 1.0816} \\ \underline{1} \phantom{00} 1 \phantom{00} \\ 204 \phantom{00} 0816 \phantom{00} \\ \underline{4} \phantom{00} 0816 \phantom{00} \end{array}$$

$$\begin{array}{r} \hline 0 \\ \hline \end{array}$$

$$\therefore \sqrt{1.0816} = 1.04$$

**Q8**

**Answer :**

Using long division method:

$$\begin{array}{r} 0.54 \\ 5 \overline{) 0.2916} \\ \underline{5} \phantom{00} 25 \\ 104 \phantom{00} 416 \\ \underline{4} \phantom{00} 416 \\ \hline 0 \end{array}$$

$$\therefore \sqrt{0.2916} = 0.54$$

**Q9**

**Answer :**

Using long division method:

$$\begin{array}{r} 1.732 \\ \hline \end{array}$$

1		3.00 00 00
1		1
<hr/>		
27		200
7		189
<hr/>		
343		1100
3		1029
<hr/>		
3462		7100
2		6924
<hr/>		
		176

$$\sqrt{3} = 1.732$$

$$\Rightarrow \sqrt{3} = 1.73 \quad (\text{correct up to two decimal places})$$

\*\*\*\*\* END \*\*\*\*\*