Exercise 3E

Q1

Answer :

Using the long division method:

$$\begin{array}{r|l} & 24 \\ \hline 2 & \overline{5}\ \overline{76} \\ 2 & 4 \\ \hline 44 & 1\ 76 \\ 4 & 1\ 76 \\ \hline & 0 \end{array}$$

$\therefore \sqrt{576} = 24$

Q2

Answer :

Using the long division method:

$$\begin{array}{r|l} & 38 \\ \hline 3 & \overline{14}\ \overline{44} \\ 3 & 9 \\ \hline 68 & 5\ 44 \\ 8 & 5\ 44 \\ \hline \end{array}$$

	0

$\therefore \sqrt{1444} = 38$

Q3

Answer :

Using the long division method:

	67
6	44 89
6	36
127	8 89
7	8 89
	0

$\therefore \sqrt{4489} = 67$

Q4

Answer :

Using the long division method:

	79
7	62 41
7	49
149	13 41
9	13 41
	0

$\therefore \sqrt{6241} = 79$

Q5

Answer :

Using the long division method:

$$
\begin{array}{r|l}
 & 84 \\
\hline
8 & \overline{70}\ \overline{56} \\
8 & 64 \\
\hline
164 & 6\ 56 \\
4 & 6\ 56 \\
\hline
 & 0
\end{array}
$$

$\therefore \sqrt{7056} = 84$

Q6

Answer :

Using the long division method:

$$
\begin{array}{r|l}
 & 95 \\
\hline
9 & \overline{90}\ \overline{25} \\
9 & 81 \\
\hline
185 & 9\ 25 \\
5 & 9\ 25 \\
\hline
 & 0
\end{array}
$$

$$\therefore \sqrt{9025} = 95$$

Q7

Answer :

Using the long division method:

	107
1	$\overline{1}\ \overline{14}\ \overline{49}$
1	1
207	14 49
7	14 49
	0

$$\therefore \sqrt{11449} = 107$$

Q8

Answer :

Using the long division method:

	119
1	$\overline{1}\ \overline{41}\ \overline{61}$
1	1
21	41
1	21
229	20 61
9	20 61
	0

$\therefore \sqrt{14161} = 119$

Q9

Answer :

Using the long division method:

$$\begin{array}{r|l} & 102 \\ \hline 1 & \overline{1}\ \overline{04}\ \overline{04} \\ 1 & 1 \\ \hline 202 & 04\ 04 \\ 2 & 04\ 04 \\ \hline & 0 \end{array}$$

$\therefore \sqrt{10404} = 102$

Q10

Answer :

Using the long division method:

$$\begin{array}{r|l} & 134 \\ \hline 1 & \overline{1}\ \overline{79}\ \overline{56} \\ 1 & 1 \\ \hline 23 & 79 \\ 3 & 69 \\ \hline 264 & 10\ 56 \\ 4 & 10\ 56 \\ \hline & 0 \end{array}$$

$$\therefore \sqrt{17956} = 134$$

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