Squares and Square Roots Ex 3.9 Q9

Answer :

Using the table to find $\sqrt{41}$

$$\begin{aligned}\sqrt{6929} &= \sqrt{169} \times \sqrt{41} \\ &= 13 \times 6.4031 \\ &= 83.239\end{aligned}$$

Squares and Square Roots Ex 3.9 Q10

Answer :

Using the table to find $\sqrt{3}$ and $\sqrt{7}$

$$\begin{aligned}\sqrt{25725} &= \sqrt{3 \times 5 \times 5 \times 7 \times 7 \times 7} \\ &= \sqrt{3} \times 5 \times 7 \times \sqrt{7} \\ &= 1.732 \times 5 \times 7 \times 2.646 \\ &= 160.41\end{aligned}$$

Squares and Square Roots Ex 3.9 Q11

Answer :

Using the table to find $\sqrt{2}$ and $\sqrt{41}$

$$\begin{aligned}\sqrt{1312} &= \sqrt{2 \times 2 \times 2 \times 2 \times 2 \times 41} \\ &= 2 \times 2\sqrt{2} \times \sqrt{41} \\ &= 2 \times 2 \times 1.414 \times 6.4031 \\ &= 36.222\end{aligned}$$

Squares and Square Roots Ex 3.9 Q12

Answer :

$$\sqrt{4192} = \sqrt{2 \times 2 \times 2 \times 2 \times 131}$$
$$= 2 \times 2\sqrt{2} \times \sqrt{131}$$

The square root of 131 is not listed in the table. Hence, we have to apply long division to find it.

	11.4455
1	131
1	1
21	31
1	21
224	1000
4	896
2284	10400
4	9136
22885	126400
5	114425
	52975

Substituting the values:

$= 2 \times 2 \times 11.4455$ (using the table to find $\sqrt{2}$)

= 64.75

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