



## Squares and Square Roots Ex 3.5 Q3

**Answer :**

(i) Using the long division method:

$$\begin{array}{r}
 75 \\
 7 \overline{) 5607} \\
 \underline{7 \phantom{00} 49} \phantom{00} \\
 145 \phantom{00} 707 \\
 \underline{5 \phantom{00} 725} \phantom{00} \\
 -18
 \end{array}$$

We can see that 5607 is 18 more than  $75^2$ . Hence, we have to add 18 to 5607 to get a perfect square.

(ii) Using the long division method:

$$\begin{array}{r}
 71 \\
 7 \overline{) 4931} \\
 \underline{7 \phantom{00} 49} \phantom{00} \\
 141 \phantom{00} 031 \\
 \underline{1 \phantom{00} 141} \phantom{00} \\
 -110
 \end{array}$$

We can see that 4931 is 110 more than  $71^2$ . Hence, we have to add 110 to 4931 to get a perfect square.

(iii) Using the long division method:

$$\begin{array}{r}
 2125 \\
 2 \overline{) 4515600} \\
 \underline{2 \phantom{00} 4} \phantom{00} \\
 41 \phantom{00} 051 \\
 \underline{1 \phantom{00} 41} \phantom{00} \\
 422 \phantom{00} 1056 \\
 \underline{2 \phantom{00} 844} \phantom{00} \\
 4245 \phantom{00} 21200 \\
 \underline{5 \phantom{00} 21225} \phantom{00} \\
 -25
 \end{array}$$

We can see that 4515600 is 25 more than  $2125^2$ . Hence, we have to add 25 to 4515600 to get a perfect square.

(iv) Using the long division method:

$$\begin{array}{r}
 194 \\
 1 \overline{) 37460} \\
 \underline{1 \phantom{00} 1} \phantom{00} \\
 29 \phantom{00} 274 \\
 \underline{9 \phantom{00} 261} \phantom{00} \\
 384 \phantom{00} 1360 \\
 \underline{4 \phantom{00} 1536} \phantom{00} \\
 -176
 \end{array}$$

We can see that 37460 is 176 more than  $194^2$ . Hence, we have to add 176 to 37460 to get a perfect square.

(v) Using the long division method:

$$\begin{array}{r}
 712 \\
 7 \overline{) 506900} \\
 \underline{7 \phantom{00} 49} \phantom{00} \\
 141 \phantom{00} 169 \\
 \underline{1 \phantom{00} 141} \phantom{00} \\
 1422 \phantom{00} 2800 \\
 \underline{2 \phantom{00} 2844} \phantom{00} \\
 -44
 \end{array}$$

We can see that 506900 is 44 more than  $712^2$ . Hence, we have to add 44 to 506900 to get a perfect square.

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