



Squares and Square Roots Ex 3.5 Q2

Answer :

(i) Using the long division method:

$$\begin{array}{r}
 48 \\
 4 \overline{) 2361} \\
 \underline{4 16} \\
 88 761 \\
 \underline{8 704} \\
 57
 \end{array}$$

We can see that 2361 is 57 more than 47^2 . Hence, 57 must be subtracted from 2361 to get a perfect square.

(ii) Using the long division method:

$$\begin{array}{r}
 441 \\
 4 \overline{) 194491} \\
 \underline{4 16} \\
 84 344 \\
 \underline{4 336} \\
 881 891 \\
 \underline{1 881} \\
 10
 \end{array}$$

We can see that 194491 is 10 more than 441^2 . Hence, 10 must be subtracted from 194491 to get a perfect square.

(iii) Using the long division method:

$$\begin{array}{r}
 162 \\
 1 \overline{) 26535} \\
 \underline{1 1} \\
 26 165 \\
 \underline{6 156} \\
 322 935 \\
 \underline{2 644} \\
 291
 \end{array}$$

We can see that 26535 is 291 more than 162^2 . Hence, 291 must be subtracted from 26535 to get a perfect square.

(iv) Using the long division method:

$$\begin{array}{r}
 127 \\
 1 \overline{) 16160} \\
 \underline{1 1} \\
 22 061 \\
 \underline{2 44} \\
 247 1760 \\
 \underline{7 1729} \\
 31
 \end{array}$$

We can see that 16160 is 31 more than 127^2 . Hence, 31 must be subtracted from 16160 to get a perfect square.

(v) Using the long division method:

$$\begin{array}{r}
 2098 \\
 2 \overline{) 4401624} \\
 \underline{2 4} \\
 40 040 \\
 \underline{0 0} \\
 409 4016 \\
 \underline{9 3681} \\
 4188 33524 \\
 \underline{8 33504} \\
 20
 \end{array}$$

We can see that 4401624 is 20 more than 2098^2 . Hence, 20 must be subtracted from 4401624 to get a perfect square.

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