Exercise 2D

$$
\begin{array}{r}
1 \\
296\overline{)\,481} \\
-296 \\
\hline
185\overline{)\,296}\,(1 \\
-185 \\
\hline
111\overline{)\,185}\,(1 \\
111 \\
\hline
74\overline{)\,111}\,(1 \\
-74 \\
\hline
37\overline{)\,74}\,(2 \\
-74 \\
\hline
0
\end{array}
$$

$\therefore$ HCF = 37

Dividing the numerator and the denominator by the HCF, we get:

$$\frac{296 \div 37}{481 \div 37} = \frac{8}{13}$$

Q29

Answer :

The lengths of the three pieces of timber are 42 m, 49 m and 63 m.
The greatest possible length of each plank will be given by the HCF of 42, 49 and 63.

Firstly, we will find the HCF of 42 and 49 by division method.

$$
\begin{array}{r}
1 \\
42\overline{)\,49} \\
-42 \\
\hline
7\overline{)\,42}\,(6 \\
-42 \\
\hline
0
\end{array}
$$

∴ The HCF of 42 and 49 is 7.

Now, we will find the HCF of 7 and 63.

$$
\begin{array}{r}
9 \\
7\overline{)\,63} \\
-63 \\
\hline
0
\end{array}
$$

∴ The HCF of 7 and 63 is 7.

Therefore, HCF of all three numbers is 7

Hence, the greatest possible length of each plank is 7 m.

Q30

Answer :

Three different containers contain 403 L, 434 L and 465 L of milk.

The capacity of the container that can measure the milk in an exact number of times will be given by the HCF of 403, 434 and 465.

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