Exercise 2D

$385 = 5 \times 7 \times 11 \times 1$

$621 = 3 \times 3 \times 3 \times 23 = 3^3 \times 23 \times 1$

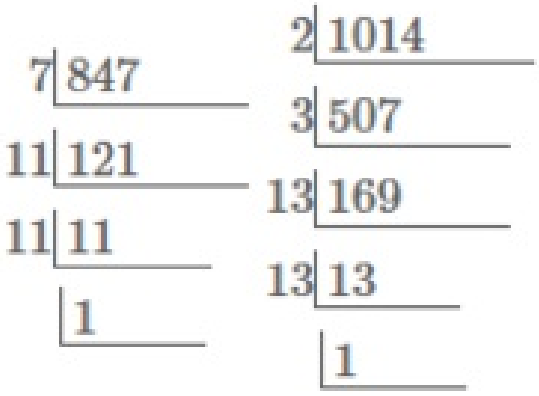
$\therefore$ HCF = 1

Hence, they are co-primes.

Q24

Answer :

The given numbers are 847 and 1014.



$847 = 7 \times 11 \times 11 \times 1 = 7 \times 11^2 \times 1$

$1014 = 2 \times 3 \times 13 \times 13 \times 1$

$\therefore$ HCF = 1

Hence, 847 and 1014 are co-primes.

Q25

Answer :

Because the remainder is 6, we have to find the number that exactly divides (615 - 6) and (963 - 6).

Required number = HCF of 609 and 957

$$
\begin{array}{r}
1 \\
609\overline{)\,957} \\
-609
\end{array}
$$

$$
\begin{array}{r}
348\overline{)609}\,(1 \\
-348
\end{array}
$$

$$
\begin{array}{r}
261\overline{)348}\,(1 \\
-\,261
\end{array}
$$

$$
\begin{array}{r}
87\overline{)261}\,(3 \\
-\,261 \\
\hline
0
\end{array}
$$

Therefore, the required number is 87.

Q26

Answer :

Clearly, we have to find the number which exactly divides (2011 − 9) and (2623 − 5).
So, the required number is the HCF of 2002 and 2618.

$$
\begin{array}{r}
1 \\
2002\overline{)\,2618} \\
-2002
\end{array}
$$

$$
\begin{array}{r}
616\overline{)2002}\,(3 \\
-1848
\end{array}
$$

$$
\begin{array}{r}
154\overline{)616}\,(4 \\
-\,616 \\
\hline
0
\end{array}
$$

∴ The required number is 154.

Q27

Answer :

Since the respective remainders of 445, 572 and 699 are 4, 5 and 6, we have to find the number which exactly divides (445-4), (572-5) and (696-6).

So, the required number is the HCF of 441, 567 and 693.
Firstly, we will find the HCF of 441 and 567.

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