

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

$$\begin{array}{r}
1\\
509 \overline{\smash)957}\\
-609\\
348 \overline{\smash)609} \left(1\\
-348\\
261 \overline{\smash)348} \left(1\\
-\underline{261}\\
87 \overline{\smash)261} \left(3\\
-\underline{261}\\
0
\end{array}$$

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.

$$\begin{array}{r}
1\\
2002 \overline{\smash)2618}\\
-2002\\
616 \overline{\smash)2002}\left(3\\
-1848\\
154 \overline{\smash)616}\left(4\\
-616\\
0
\end{array}\right)$$

.. 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.