



Exercise 2F

Q17

**Answer :**

(c) 360

$$\begin{array}{r} 2 \overline{) 24, 36, 40} \end{array}$$

$$\begin{array}{r} 2 \overline{) 12, 18, 20} \end{array}$$

$$\begin{array}{r} 2 \overline{) 6, 9, 10} \end{array}$$

$$\begin{array}{r} 3 \overline{) 3, 9, 5} \end{array}$$

$$\begin{array}{r} 3 \overline{) 1, 3, 5} \end{array}$$

$$\begin{array}{r} 5 \overline{) 1, 1, 5} \end{array}$$

$$1, 1, 1$$

$$\begin{aligned} \text{L.C.M.} &= 2^3 \times 3^2 \times 5 \\ &= 360 \end{aligned}$$

Q18

**Answer :**

(d) 540

$$\begin{array}{r|l} 2 & 12, 15, 20, 27 \\ \hline \end{array}$$

$$\begin{array}{r|l} 2 & 6, 15, 10, 27 \\ \hline \end{array}$$

$$\begin{array}{r|l} 3 & 3, 15, 5, 27 \\ \hline \end{array}$$

$$\begin{array}{r|l} 3 & 1, 5, 5, 9 \\ \hline \end{array}$$

$$\begin{array}{r|l} 3 & 1, 5, 5, 3 \\ \hline \end{array}$$

$$\begin{array}{r|l} 5 & 1, 5, 5, 1 \\ \hline \end{array}$$

1, 1, 1, 1

$$\text{L.C.M.} = 2^2 \times 3^3 \times 5 = 540$$

Q19

**Answer :**

(d) none of these

The smallest number that is exactly divisible by 11, 28, 36 and 45 will be their L.C.M.  
So, the required number will be the L.C.M. plus 3.

$$\begin{array}{r}
 2 \overline{) 11, 28, 36, 45} \\
 2 \overline{) 11, 14, 18, 45} \\
 3 \overline{) 11, 7, 9, 45} \\
 3 \overline{) 11, 7, 3, 15} \\
 5 \overline{) 11, 7, 1, 5} \\
 7 \overline{) 11, 7, 1, 1} \\
 11 \overline{) 11, 1, 1, 1} \\
 \quad 1, 1, 1, 1
 \end{array}$$

$$\begin{aligned}
 \text{L.C.M. of the three numbers} &= 2^2 \times 3^2 \times 5 \times 7 \times 11 \\
 &= 13860
 \end{aligned}$$

$$\therefore \text{Required number} = 13860 + 3 = 13863$$

Q20

**Answer :**

(c) 1

H.C.F. of two co-primes is 1.

This is because two co-prime numbers do not have any common factor.

For example, 15 and 16 are co-primes.

Their H.C.F. is 1.

Q21

**Answer :**

(c)  $ab$

If  $a$  and  $b$  are co-primes then their LCM will be  $ab$ .

For example, 4 and 9 are co-primes.

L.C.M. of 4 and 9 is  $4 \times 9$ .

\*\*\*\*\* END \*\*\*\*\*