



Exercise 1A

Questions 6:

(i) By prime factorization, we get

2	24
2	12
2	6
3	3
	1

2	36
2	18
3	9
3	3
	1

2	40
2	20
2	10
5	5
	1

$$\therefore 24 = 2^3 \times 3$$

$$36 = 2^2 \times 3^2$$

$$40 = 2^3 \times 5$$

$$\therefore \text{H.C.F. of } (24, 36, 40) = 2^2 = 4$$

$$\text{L.C.M of } 24, 36 \text{ and } 40 = (2^3 \times 3^2 \times 5) = (8 \times 9 \times 5) = 360$$

(ii) By prime factorization, we get

2	30
3	15
5	5
	1

2	72
2	36
2	18
3	9
3	3
	1

2	432
2	216
2	108
2	54
3	27
3	9
3	3
	1

(iii) By prime factorization, we get

$$\begin{array}{r|l} 3 & 21 \\ 7 & 7 \\ \hline & 1 \end{array}$$

$$\begin{array}{r|l} 2 & 28 \\ 2 & 14 \\ 7 & 7 \\ \hline & 1 \end{array}$$

$$\begin{array}{r|l} 2 & 36 \\ 2 & 18 \\ 3 & 9 \\ 3 & 3 \\ \hline & 1 \end{array}$$

$$\begin{array}{r|l} 3 & 45 \\ 3 & 15 \\ 5 & 5 \\ \hline & 1 \end{array}$$

Questions 7:

H.C.F = 23; L.C.M, = 1449

For any two numbers a and b, we have

$$a \times b = \text{L.C.M} \times \text{H.C.F}$$

$$\therefore b = \frac{\text{L.C.M} \times \text{H.C.F}}{a}$$

$$\Rightarrow b = \frac{1449 \times 23}{161} = 207$$

Questions 8:

H.C.F. of two numbers = 11, their L.C.M = 7700

One number = 275, let the other number be b

Now, $275 \times b = 11 \times 7700$

***** END *****