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

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

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

$40 = 2^3 \times 5$

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

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

(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

3	21
7	7
	1

2	28
2	14
7	7
	1

2	36
2	18
3	9
3	3
	1

3	45
3	15
5	5
	1

Questions 7:

$$\text{H.C.F} = 23; \text{L.C.M}, = 1449$$

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 x b = 11 x 7700

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