Chapter-8

Revision Exercise

④

① HCF of 108 = 1, 2, 3, 4, 6, 9, 12, 18, 27, 36, 54, 108.
HCF of 288 = 1, 2, 3, 4, 6, 8, 9, 12, 16, 18, 24, 36, 48, 72, 96, 144, 288.
~~HCF of~~

①

① HCF of

2	108	288	420
6	54	144	210
	9	24	35

HCF of 108, 288, 420 = 2 × 6 = 12.

⑪ HCF of

2	36	54	138
3	18	27	69
	6	9	23

HCF of 36, 54, 138 = 2 × 3 = 6

②

① LCM of

2	72	80	252
2	36	40	126
2	18	20	63
3	9	10	63
3	3	10	21
	1	10	7

LCM of 72, 80, 252 = 2 × 2 × 2 × 3 × 3 × 10 × 7 = 5040.

⑪ LCM of

2	48	66	120
3	24	33	60
2	8	11	20
2	4	11	10
	2	11	5

LCM of 48, 66, 120 = 2 × 3 × 2 × 2 × 2 × 11 × 5 = ~~2440~~ 2640

③

(i) True (2, 3 · HCF = 1)

(ii) True (3, 5 · HCF = 1)

(iii) True (2, 3 · LCM = 6 (2×3))

(iv) True (3, 5 · LCM = 3×5 = 15)

④ The product of two numbers = 12096.

Their HCF = 36.

LCM = $\frac{\text{Product of two number}}{\text{Their HCF}}$ $\Rightarrow$ $\frac{12096}{36} = 336$.

of two numbers.

Therefore, the LCM of two numbers is 336.

⑤ Product of HCF and LCM of two numbers = 1152

One number = 48.

Other number = $\frac{\text{Product of LCM and HCF}}{\text{One number.}}$ $\Longrightarrow$

$= \frac{1152}{48} = 24.$

Therefore, the other number is 24.

⑥

(i) The smallest number that is completely divisible by 28 and 42 = their HCF.

2 | 28 42

7 | 14 21 . HCF = 2×7 = 14

2 3

So, 14 is the smallest number which is completely divisible by 28 and 42.

(11) The largest number that can completely divisible by 28 and 42 = Their LCM.

2	28	42
7	14	21
	2	3

LCM = 2 × 7 × 2 × 3 = 84.

So, the largest number which is completely divisible by 28 and 42 is 84.

(7) HCF and LCM of 140 and 168 =

2	140	168
2	70	84
7	35	42
	5	6

HCF = 2 × 2 × 7 = 28.

LCM = 2 × 2 × 7 × 5 × 6 = 840.

(8) HCF and LCM of 108 and 450

2	108	450
3	54	225
3	18	75
	6	25

HCF = 2 × 3 × 3 = 18.

LCM = 2 × 3 × 3 × 6 × 25 = 2700.