HW
25.6.21

Sanvi Mishra, classmate
6. B
3527
Date
Page

Ex-8.C

1.(i) Ans- 8, 12 and 24.

4	8, 12, 24
3	2, 3, 6
2	2, 1, 1
	1, 1, 1

LCM = 4 x 3 x 2 = 24.

(ii) ans- 10, 15 and 20:-

2	10, 15, 20
2	5, 15, 10
5	5, 15, 5
	1, 3, 1

LCM = 2 x 2 x 5 x 3 = 60.

(iii) 3, 6, 9 and 2:-

3	3, 6, 9, 12
2	1, 2, 3, 4
	1, 1, 3, 2

LCM - 3 x 2 x 3 x 2 = 36.

2.(i) Prime Factors of 18 = 2 x 3 x 3
Prime Factors of 24 = 2 x 2 x 2 x 3.
Prime Factors of 96 - 2 x 2 x 2 x 2 x 2 x 3.
LCM = 2 x 2 x 2 x 2 x 2 x 3 x 3 = 288.

(ii) Common division - 18, 24 and 96.

LCM = 2 x 2 x 2 x 2 x 2 x 3 x 3 = 288.

2	18, 24, 96
2	9, 12, 48
2	9, 6, 24
3	9, 3, 12
	3, 1, 4

(2) Factors of 100 = 2 x 2 x 5 x 5.
Factors of 150 = 2 x 3 x 5 x 5.
Factors of 200 = 2 x 2 x 2 x 5 x 5.

LCM = 2 x 2 x 2 x 3 x 5 x 5 = 600.

(ii) Common division = 100, 150, 200.

2	100, 150, 200
2	50, 75, 100
5	25, 75, 50
5	5, 15, 10
	1, 3, 2

LCM = 2 x 2 x 2 x 3 x 5 x 5 = 600.

(3) Factors of $14 = 2 \times 7$
Factors of $21 = 3 \times 7$
Factors of $98 = 2 \times 7 \times 7$

$LCM = 2 \times 3 \times 7 \times 7 = 294$

(ii) Common division - 14, 21, 98

2	14, 21, 98
7	7, 21, 49
	1, 3, 7

$LCM = 2 \times 3 \times 7 \times 7 = 294$

(4) Factors of $22 = 2 \times 11$
Factors of $121 = 11 \times 11$
Factors of $33 = 3 \times 11$

$LCM = 2 \times 3 \times 11 \times 11 = 726.$

(ii) Common division - 22, 121, 33

2	22, 121, 33
11	11, 121, 33
	1, 11, 3

$LCM = 2 \times 3 \times 11 \times 11 = 726.$

(5) Factors of 34 = 2 × 17
Factors of 85 = 5 × 17
Factors of 51 = 3 × 7

LCM = 2 × 5 × 3 × 17 = 510.

(ii) Common Division - 85, 34, 51

2	34, 85, 51
17	17, 85, 51
	1, 5, 3

LCM = 2 × 5 × 3 × 17 = 510.

3. ans - HCF = 50
LCM = 300
Product of LCM and HCF = 300 × 50 = 15000

one no. = 150. The other no. = $\frac{\text{LCM} \times \text{HCF}}{\text{1 number}}$

$\frac{15000}{150} = 100.$

4. ans- Product of two numbers = Product of their LCM and HCF.

The product of 2 numbers = 432.

LCM = 72.

$HCF = \frac{432}{72} = 6.$

5. ans- Product of two nos. = Product of their LCM and HCF

The product of 2 nos. is = 19200.

HCF = 40.

$LCM = \frac{19200}{40} = 480.$

6. ans- Required number LCM of 12, 15, 18, 24 and 36.

2	12, 15, 18, 24, 36
2	6, 15, 9, 12, 18
3	3, 15, 9, 6, 9
3	1, 5, 3, 2, 3
	1, 5, 1, 2, 1

LCM = least required numbers.

$= 2 \times 2 \times 3 \times 3 \times 5 \times 2 = 360$

T. ans- LCM of give nos:-

	12, 15, 18, 24, 36
	6, 9, 12, 16, 20

2	12, 18, 24, 32, 40
2	6, 9, 12, 16, 20
2	3, 9, 6, 8, 10
3	3, 9, 3, 4, 5
	1, 3, 1, 4, 5

LCM = 2x2x2x3x3x4x5 = 1440-1
= 1439.

8. ans- LCM of 18, 36, 32 and 27

2	18, 36, 32, 27
2	9, 18, 16, 27
3	9, 9, 8, 27
3	3, 3, 8, 9
	1, 1, 8, 3

= 2x2x3x3x3x8 = 864+3 = 867