HW
29.6.21

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Revision Exercise

1(i)

288	108	2
-216		
72	108	1
	-72	
36	72	2
	-72	
	x	

420	36	11
-396		
24	36	1
	-24	
12	24	2
	-24	
	x	

HCF = 12.

(ii)

54	36	1
-36		
18	36	1
	-36	
x	18	

138	126	7
126		
12	18	1
	-12	
6	12	2
	-12	
	x	

HCF = 6

2. ans (i)

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

LCM = 2 × 2 × 2 × 3 × 3 × 7 × 10 = 5040.

(ii)

2	48 66 120
2	24 33 60
2	12 33 30
3	6 33 15
	2 11 5

LCM = 2 × 2 × 2 × 3 × 2 × 11 × 5 = 2640.

3. ans - True - because the prime nos. have no common factor except 1.

(ii) True - Because co prime numbers have no common factor except 1.

(iii) True - Because the prime no. have no common factor execpt 1.

(iv) True - Because coprime nos. have no common factor except 1.

4. ans - Product of 2 nos. = Product of their HCF and L.C.M.

$12096 = 36 \times LCM.$

$LCM = \frac{12096}{36} = 336.$

5. ans - Product of 2 nos. = Product of their HCF and LCM.

= 1st nos x 2nd no. = Product of their HCF and LCM.

$= 48 \times 2^{nd} = 1152.$

$= 2^{nd} nos = \frac{1152}{48} = 24.$

6.(i) ans - LCM =

$$\begin{array}{r|l} 2 & 28, 42 \\ \hline 7 & 14, 21 \\ \hline & 2 \quad 3 \end{array}$$

LCM of 28 and 42 = 2 x 2 x 3 x 7 = 84.

(ii) ans - HCF =

28	42	1
	28	
14	28	2
	28	
	x	

HCF of 28 and 42 = 14.

T.ans - LCM of 140 and 168.

2	140,	168.
2	70,	84
7	35,	42
	5,	6

$= 2 \times 2 \times 7 \times 5 \times 6 = 840.$

Product of 2 nos. = Product of their HCF and LCM.

$$HCF = \frac{1^{st} \text{ no.} \times 2^{nd} \text{ no.}}{LCM}$$

$$HCF = \frac{140 \times 168}{840} = 28.$$

8. ans- HCF of 108 and 450.

$$
\begin{array}{r|l|l}
108 & 450 & 4 \\
 & -432 & \\
\hline
18 & 108 & 6 \\
 & -108 & \\
\hline
 & X & = 18
\end{array}
$$

Product of 2 no. = Product of their HCF and LCM.

$$\text{LCM} = \frac{\text{1st no.} \times \text{2nd no.}}{\text{HCF}}$$

$$\text{LCM} = \frac{108 \times 450}{18} = 2700$$