

20/6/21  
HW

# Revision Exercise chapter - 8 ~~Revision~~

1i)  $108 \overline{) 288} (2$   
 $\underline{-216}$   
 $72 \overline{) 108} (1$   
 $\underline{-72}$   
 $36 \overline{) 72} (2$   
 $\underline{-72}$   
 $0$

$36 \overline{) 420} (11$   
 $\underline{-360}$   
 $60 \overline{) 36}$   
 $\underline{-36}$   
 $24 \overline{) 36} (1$   
 $\underline{-24}$   
 $12 \overline{) 24} (2$   
 $\underline{-24}$   
 $0$

~~HCF = 12~~

HCF = 12

ii)  $36 \overline{) 54} (1$   
 $\underline{-36}$   
 $18 \overline{) 36} (2$   
 $\underline{-36}$   
 $0$

$18 \overline{) 138} (7$   
 $\underline{-126}$   
 $12 \overline{) 18} (1$   
 $\underline{-12}$   
 $6 \overline{) 12} (2$   
 $\underline{-12}$   
 $0$

~~HCF = 18~~

HCF = 6

2i)  $2 \overline{) 72, 80, 252}$   
 $2 \overline{) 36, 40, 126}$   
 $2 \overline{) 18, 20, 63}$   
 $2 \overline{) 9, 10, 31.5}$   
 $3 \overline{) 9, 5, 6.3}$   
 $3 \overline{) 3, 5, 2.1}$   
 $1, 5, 7$

LCM =  $2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 7$   
 $= 5040$



$$\begin{array}{r}
 \text{i)} \quad 2 \overline{) 48, 66, 120} \\
 \quad 2 \overline{) 24, 33, 60} \\
 \quad \quad 2 \overline{) 12, 33, 30} \\
 \quad \quad \quad 2 \overline{) 6, 33, 15} \\
 \quad \quad \quad \quad 3 \overline{) 3, 33, 15} \\
 \quad \quad \quad \quad \quad 1 \overline{) 11, 5}
 \end{array}$$

$$\begin{aligned}
 \text{LCM} &= 2 \times 2 \times 2 \times 2 \times 3 \times 5 \times 11 \\
 &= 2640
 \end{aligned}$$

3 i) ~~True~~ (ii) True (iii) True (iv) True

4) Product of 2 no = 12096

HCF = 36

LCM =

$$\begin{aligned}
 & \frac{\text{Product of 2 no}}{\text{HCF}} \\
 &= \frac{12096}{36} = 336
 \end{aligned}$$

$$\begin{array}{r}
 1008 \times 36 \\
 3024 \\
 6048 \\
 12096 = 36 \\
 36 \\
 18 \\
 9 \\
 3
 \end{array}$$

LCM = 336

5) Product of HCF and LCM = 1152

1<sup>st</sup> no = 48

2<sup>nd</sup> no =

Product of HCF and LCM =

$$\begin{array}{r}
 24 \\
 576 \div 44 \\
 576 \\
 1152 = 24 \\
 48 \\
 24 \\
 12 \\
 6
 \end{array}$$

$$\begin{array}{r}
 24 \times 48 = 1152 \\
 24 \\
 48 \\
 96 \\
 144 \\
 192 \\
 240 \\
 288 \\
 336 \\
 384 \\
 432 \\
 480 \\
 528 \\
 576 \\
 624 \\
 672 \\
 720 \\
 768 \\
 816 \\
 864 \\
 912 \\
 960 \\
 1008 \\
 1056 \\
 1104 \\
 1152
 \end{array}$$

∴ So, other no = 24

6 i) 2 28, 42

2 14, 21

3 7, 21

7 7, 7

1, 1

LCM = 2 x 2 x 3 x 7 = 84

∴ So 84 is exactly divisible by 28, 42



$$\begin{array}{r}
 \text{ii)} \quad 28 \overline{) 42} \quad (1 \\
 \underline{28} \\
 14 \overline{) 28} \quad (2 \\
 \underline{28} \\
 0
 \end{array}$$

HCF = 14  
 $\therefore$  so 14 is completely divided by 28 and 42.

$$\begin{array}{r}
 7. \quad 2 \overline{) 140, 168} \\
 2 \overline{) 70, 84} \\
 2 \overline{) 35, 42} \\
 3 \overline{) 35, 21} \\
 5 \overline{) 35, 7} \\
 7 \overline{) 7, 1}
 \end{array}$$

$$LCM = 2 \times 2 \times 2 \times 3 \times 5 \times 7 = 840$$

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

8. HCF = 18

$$\begin{array}{r}
 108 \overline{) 450} \quad (4 \\
 \underline{432} \\
 18 \overline{) 108} \quad (6 \\
 \underline{108} \\
 0
 \end{array}$$

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

LCM = 2700

3 i) True = ( 2 & 3 are 2 prime numbers and their HCF = 1 )

ii) True = ( 9 & 8 are 2 coprime numbers and their HCF = 1 )

iii) True = ( 7 & 5 are 2 prime numbers ~~into~~ those Product and L.C.M is equal )

iv) True = ( 9 & 8 are 2 coprime numbers those Product and L.C.M :