## HCF & LCM

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Youva

Largest four digit no. divisible by (12,15,20)

Largest four digit no. -> 9999

ho. divisible by (12,15,20) is divisible by its LCM

... 9999 = 9999 = 9900 Remaider=99

LCM(12,15,20) 180

· no divisible by 180 = (9899-99) = 9900

Tf no. are in ratio (5:11) and HCFis 13 what are the numbers?

As no. are in ratio 15:11 then no are 15 x 8 11 x as HCF is 13, no. must multiple of x and 13 Hence no. are

i'.15  $x \Rightarrow 15 \times 13 \Rightarrow 195 + \cdots = 15$ 

 $\frac{1}{11} \times \frac{11}{12} \Rightarrow 11 \times 13 \Rightarrow 143$ 

13 and 14 find biggest no. -as HCF is a factor of tem and 13 and 14 also
are factors of lem.

Thus no. could be 23×13 & 23×14 hence larger
no. is 23×14=322

HCF of two no crets 23 and factors of compre

Six bells tolls together at interval of 2,4,6,8,10812
sec in 30 min how many Homes they tolls together

-> LCM of of time intervals = 120 sec

total time interval is = 100x30 sec they toll together 60x30 = 15 times during interval and I time at start

1. 16 times

Q.

Q -

Let Nouvides 1305, 4665, 6905 leaving same.
remainder then what is the sum of digits of

we need to find no that divide all no. with remainder for this we will find three no. the are totally divisible by that no and HCF this no is required no. .. N = HCF of (4665-1305), (6905-4665), (6905-1 = HCF of (2360) (2240) (5600) 336 224 560 612 280 HCF=10x2x2x2 168 84 56 140 = 1120 28 2 42 70 1.4 35 21 2 52 : Ans = 1+1+2+0 = 4 Product of no. 4107 and HCF 37 then greaterno. Q. Let 37a, 37b are no. then

 $\Rightarrow$  Let 37a, 37b are no. then  $37a \times 37b = 4107$  ab = 3  $\begin{cases} a = 1 & b = 3 \end{cases}$ 

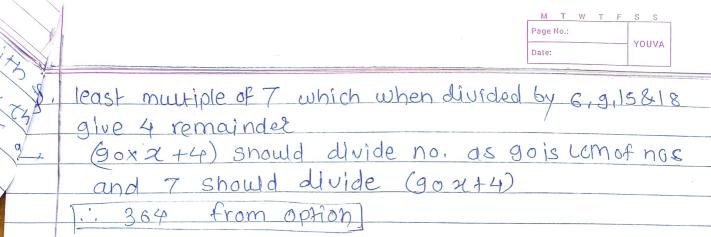
: 37x1 and 37x3 are no.

THEF of no one 40,

Q. Product of two 2078 and HCF 13 How many no pairs?

Let 13a, 13b then  $13a \times 13b = 2028$ ab = 12

no. of co-primes with product 12 are (1,12), (3x4) hence two pairs.



Q. Three numbers which are co-prime such that produce

co-prime no. hence tempos HCF of products is one of middle no. i.e. 29 hence other one 19, 37

Sum of no. 55 LCM and HCF are 5 and 120 what is Sum of reciprocals? Let a, b then \_\_\_\_\_\_ = bta = a+b = 55

Let a, b then a+b=b+a=a+b=55ab LCMXHCF 600

120