

H.W.
19/9/24

Ch-8 (Factors And Multiples)

Worksheet (Answers)

QA > Fill in the blanks

a > factors

b > 2 / two

c > 1 / one

d > Common multiple

e > Prime

QB > Match the following

1 > → (iv)

4 > → (v)

2 > → (iii)

5 > → (ii)

3 > → (i)

36

QC > Do as directed :

a) Ans > H.C.F. of 16, 24 and 85

- 1 | 16, 24, 85
 | 16, 24, 85 (They are Co-prime)

So, H.C.F. is 1.

b) Ans > L.C.M. of 16, 28 and 32

=	2		16, 28, 32
	2		8, 14, 16
	2		4, 7, 8
	2		2, 7, 4
	2		1, 7, 2
	7		1, 7, 1
			1, 1, 1

$$= 7 \times 2 \times 2 \times 2 \times 2 \times 2$$

$$= 224 \text{ (L.C.M.)}$$

c >
Ans >
$$\frac{\text{Product of HCF and LCM}}{1 \text{ number}}$$

= the other number
= $\frac{5 \times 60^3}{20} = 15$

So, the other number is 15

d >

Ans > HCF =

5	90, 405
3	18, 81
3	6, 27
	2, 9

= $5 \times 3 \times 3 = 45$ (HCF)

So, the greatest number which divides 90 and 405 without leaving a remainder is 45.

e >
Ans > Duration after which the first bell rings = 30 minutes

Duration after which the second bell rings = 45 minutes

Duration after which the third bell rings = 1 hour = 60 minutes

Time they will ring again

= L.C.M of 30, 45 and 60 + time they started ringing

3	30, 45, 60
5	10, 15, 20
2	2, 3, 4
3	1, 3, 2
2	1, 1, 2
	1, 1, 1

= $5 \times 3 \times 2 \times 3 \times 2 = 180$ minutes

= 9: Am + 180 minutes (3 hours)

= 12:00 noon

So, the three bells will
start ringing again at ~~5:00~~
12:00 noon.