

Ch-8

## Factors and Multiples

A: a) 1, 3, 5, 15 are called multiples  
of 15

b) All even numbers are divisible  
by 2

c) 1 is a number which is neither  
prime nor composite.

d) 18 is a multiple of 3 and 6

e) Numbers that have two factors,  
1 and the number itself, are called  
prime numbers

B. A

B

1. Factors of 35

i) 1

2. Multiple of 5

ii) 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100

3. Factor of even number

iii) 50

4. Smallest prime number

iv) 7

B. Factors of a number

v) 2

C. a)  $16 = 1, 2, 4, 8, 16$

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

$85 = 1, 5, 17, 85$

HCF = 1

(b) 

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

 $LCM = 2 \times 2 \times 2 \times 2 \times 7 \times 2 = 224$

(c)  $\frac{\text{HCF} \times \text{LCM}}{\text{one number}} = \text{Other number}$

$\Rightarrow \frac{5 \times 60}{20} = 15$

Therefore, the other number is 15.

(d) The greatest number which divides 90 & 405 without any remainder is

the HCF of 90 & 405

3	90, 405
3	30, 135
5	10, 45
<del>2</del>	<del>5, 15</del>

$\text{HCF} = 3 \times 3 \times 5 = 30$

Therefore, the greatest number that can divide 90 & 405 is 30

(e)

$$(c) 30 = 2 \times 3 \times 5$$

$$45 = 3 \times 3 \times 5$$

$$60 = 2 \times 2 \times 3 \times 5$$

$$\text{LCM} = 2 \times 2 \times 3 \times 3 \times 5 = 180$$

So, the bells will again ring together  
in 180 mins or 3 hrs.