

Chapter - 8

Factors and Multiples

A. Fill in the blank

a. Factor

b. 1

c. one

d. multiple

e. Prime

B. Column - A

1. Factors of 35

2. Multiple of 5

3. Factors of every number

4. Smallest prime number

5. Multiples of a number

Column - B

i) 1

ii) infinite

iii) 50

iv) 7

v) 2

C. Draw directed

a. 16, 24, 85

2 16	2 24	5 85
2 8	2 12	5 40
2 4	2 6	3 9
1 1	3 3	3 3
	1	1

H.C.F = 1

L.C.M = 16, 24, 85

b. 16, 28 and 32

$$2 \mid 16, 28, 32$$

$$2 \mid 8, 14, 16$$

$$2 \mid 4, 7, 8$$

$$2 \mid 2, 7, 4$$

$$2 \mid 1, 7, 2$$

$$7 \mid 1, 7, 1$$

$$1 \mid 1, 1, 1$$

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

c. The H.C.F of two numbers is 5 and L.C.M is 60.

If one of the numbers is 20. Other number is ?

The other number is = $\text{H.C.F} \times \text{L.C.M} = \text{Product}$
 $\therefore \text{product} \div 20$

$$5 \times 60 = 300 = 20 \div 300 = 15$$

\therefore The other number is = 15

d. $5 \mid 90 \ 405$

$$3 \mid 99 \ 81 \quad \text{H.C.F} = 45$$

$$3 \mid 33 \ 27$$

$$1 \mid 11 \ 9$$

\therefore The greatest number divided by 90 and 405 without leaving a ~~rem~~ remainder is = 45

c. Three bells of a temple began ringing at 9 a.m. The first bell rings after ~~at~~ every 30 min and the second one rings after every 45 min and the third one rings after every hour.

First	Second	Third	\therefore The time will they ring together again is = 12:00
30	45	60	
9:30	9:45	10:00	
10:00	10:30	11:00	
10:30	11:15	12:00	
11:00	12:00		
11:30			
12:00			