

20.10.21

Subject - Maths
Chapter - Factors and
Multiplies Worksheet - 2

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A-10: 1, 3, 5 and 15 are called
Factor of 15.

- b. All even numbers are divisible by 2.
- c. 0 is a number which is neither prime nor composite.
- d. 18 is a multiple of 3 and 6.
- e. Numbers that have only two factors, 1 and number itself are called prime numbers.

B. Do as directed:

a) Find the HCF of 16, 24 and 85.

$$\begin{array}{l} 2 \overline{) 16, 24, 85} \\ 5 \overline{) 8, 12, 85} \\ 4 \overline{) 8, 12, 17} \\ \quad 2, 3, 17 \end{array}$$

HCF of 24, 16 and 85 is $2 \times 5 \times 4 = 40$

b) Find the LCM of 16, 28 and 32.

$$\begin{array}{r} 32 \\ \times 7 \\ \hline 224 \end{array}$$

$$\begin{array}{l} 2 \overline{) 16, 28, 32} \\ 2 \overline{) 8, 14, 16} \\ 2 \overline{) 4, 7, 8} \\ 2 \overline{) 2, 7, 4} \\ 2 \overline{) 1, 7, 2} \\ 7 \overline{) 1, 7, 2} \\ \quad 1, 1, 1 \end{array}$$

LCM of 16, 28 and 32 is $2 \times 2 \times 2 \times 2 \times 7 = 224$.

The HCF of two numbers is 5 and LCM is 60. If one of the numbers is 20, find the ~~other~~ other number.

Ans HCF = 5

LCM = 60

One of the number = 20

Other number = $\frac{\text{LCM} \times \text{HCF}}{\text{One number}}$

So, the other number is 15.

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

d) Find the greatest number which divides 90 and 405 without leaving a remainder.

Ans: ~~HCF~~ HCF of 90 and 405

$$= \begin{array}{r} 4 \\ 90 \overline{) 405} \\ \underline{-360} \quad 2 \\ 45 \overline{) 90} \\ \underline{-90} \\ 0 \end{array}$$

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

e) Three bells of a temple began ringing at 9:00 am. The first bell rings after every 30 minutes and the second one rings after every 45 minutes and the third one rings after

every hour. At what time will they ring together again?

Ans First bells rings = 30m
Second bells rings = 45m
Third bells ring = 1hr = 60m

Bell will

ring again = $5 \overline{) 30, 45, 60}$

$3 \overline{) 6, 9, 12}$

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

$2 \overline{) 2, 3, 6, 4}$

$= 180$ or 3 hours

$2 \overline{) 1, 3, 2}$

1, 3, 1

So, it will ring again at 180m or 3 hours.

Match

a. Factor of 35

u. 1

b. Multiples of 5

vi. Infinite

c. Factor of every number

vi. 50

d. Factors of a number

vi. 7

e. Smallest prime number

vi. 2