

Learning content: Write in your notebook

Multiples:

The multiples of a number are the numbers that can be divided by the given number an exact number of times.

If one number is multiplier of another ,it will divide another number exactly with no remainder.
 $12 \div 3 = 4$ (so , 12 is the multiple of 4)

Properties of multiples:

- 1) Every number is multiple of itself.
E.g.- $2 \times 1 = 2$, $4 \times 1 = 4$
- 2) Every number is multiple of 1.
E.g - $1 \times 1 = 1$, $1 \times 2 = 2$
- 3) Every multiple of a number is greater than or equal to the number itself.
- 4) The first and the smallest multiple of a number is the number itself.
- 5) A number has infinite multiples.
E.g.- the Multiples of 2 are 2, 4, 6, 8, 10, 12.....

Common multiples:

It is a common number, that is a multiple of 2 or 3 numbers.

E.g.-Multiples of 5- 5,10,15,20,25,30,35.....

Multiples of 6- 6,12,18,24,**30**,35.....

Here, 30 is the common multiple of 5 and 6.

Exercises:

Question 1: Find the Multiples of-

- a) First four multiples of 4- 4,8,12,16
b) First five multiples of 6- 6,12,18,24,30

Solve these on your own

- c) First six multiples of 8- __, __, __, __, __, __
- d) First seven multiples of 9- __, __, __, __, __, __, __

Question 2: Write the following-

- a) 4th multiple of 8= $(4 \times 8) = 32$
- b) 16th multiple of 12= $(16 \times 12) = 192$

Solve these on your own

- c) 20th multiple of 11= __
- d) 12th multiple of 25= __

Question 3 :Find two common multiples of the following-

- a) 3 and 4

solution-

3= 3, 6, 9, 12, 15, 18, 21, 24, 27
4= 4, 8, 12, 16, 20, 24, 28, 32, 36

Here, 12 and 24 are the two common multiples.

Solve this on your own

- b) 6 and 8 (do yourself)

Factors:

Factor of a number is the number that divides the given number completely.

E.g.- 2 is the factor of 12 because 2 goes into 12 six times ($2 \times 6 = 12$).

It means 6 is also a factor of 12.

Factors of 12 are 1, 2, 3, 4, 6, 12

Properties of factors:

- 1) 1 is the factor of every number.
- 2) Every number is a factor of itself.
- 3) All the factors of a number lie between 1 and the given number.
- 4) A number has finite number of factors.

Methods of finding factors:

- 1) Using multiplication method
- 2) Using division method

Question 4: Find the factors (using multiplication method) -

a) 8

solution-

$$1 \times 8 = 8, 2 \times 4 = 8$$

Thus, factors of 8 are 1, 2, 4 and 8

Solve these on your own

b) 15

c) 28

Question 5: Find the factors (using division method) -

a) 36

solution-

$$36 \div 1 = 36$$

$$36 \div 2 = 18$$

$$36 \div 3 = 12$$

$$36 \div 4 = 9$$

$$36 \div 6 = 6$$

Thus, the factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18 and 36

Solve these on your own

b) 24

c) 72

Mental sums-

1) A number has finite number of factors. (true or false)

2) Is 7, a factor of 81 ? (yes or no)

3) 1 is the factor of every number. (true or false)

4) Is 48, a multiple of 6 ? (yes or no)

Answer key:

Q.1: c) 8, 16, 24, 32, 40, 48

Q.2: d) 9, 18, 27, 36, 45, 54, 63

Q.3: c) 220. d) 300

Q.4: b) 24, 48

Q.5: b) 1, 2, 3, 4, 6, 8, 12, 24

c) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72

Mental sums-

1) true

2) no

3) true

4) yes

