TOPIC – FACTORS AND MULTIPLES

SUBJECT – MATHEMATICS   (2020-21)

NAME :_____   CLASS : IV   WEEK : 9.11.2020 to 19.11.2020

Learning outcomes :
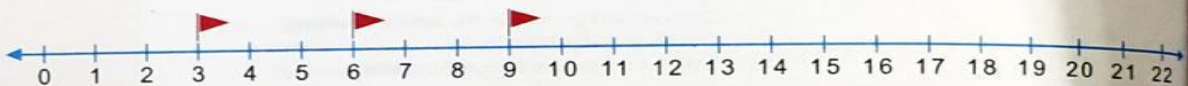
Each child will be able to :

- ➢ Observe the number patterns in relation to multiples and generalise the properties as well.
- ➢ Apply the properties and concept of multiples in different situations.

WARM UP

Fill the boxes:

Multiples

Rani took part in a relay race where the players had to put the flag of the team at every 3 meters:

Place the next four flags at their appropriate positions.

$$3 \times 1 = 3$$
$$3 \times 2 = 6$$
$$3 \times 3 = 9$$
$$3 \times 4 = $$
$$3 \times 5 = $$
$$3 \times 6 = $$
$$3 \times 7 = $$

If she continues running, at what other numbers will she put the flags?

Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flag Position	3	6	9													

3, 6, 9, 12, 15, 18, 21, 24 … are multiples of 3.

Let us find out, the first five multiples of the given numbers:

(Observe the given number patterns and complete the boxes given below)

First 5 multiples of 3, 7, 11 and 15.

Multiples of 3

$3 \times 1 = 3$

$3 \times 2 = 6$

$3 \times 3 = 9$

$3 \times 4 = 12$

$3 \times 5 = 15$

First 5 multiples of 3.

Multiples of 7

$7 \times 1 = 7$

$7 \times 2 = 14$

$7 \times 3 = 21$

$7 \times 4 = 28$

$7 \times 5 = 35$

First 5 multiples of 7.

Multiples of 11

$11 \times 1 = 11$

☐ = ☐

☐ = ☐

☐ = ☐

☐ = ☐

First 5 multiples of 11.

Multiples of 15

$15 \times 1 = 15$

☐ = ☐

☐ = ☐

☐ = ☐

☐ = ☐

First 5 multiples of 15.

When two or more numbers are multiplied, the product is called the multiple of each of the numbers being multiplied.

$3 \times 4 = 12$

12 is a multiple of 3.

12 is a multiple of 4.

Let us explore the properties of multiples:

Properties of Multiples

1. Observe the following:

3 × 1 = 3, therefore 3 is a multiple of 1.

4 × 1 = 4, therefore _____ is a multiple of 1.

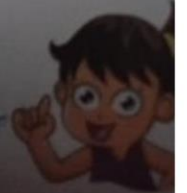1 × 1 = 1, therefore _____ is a multiple of 1.

Every number is a multiple of 1.

2. Observe the following:

1 × 5 = 5, therefore 5 is a multiple of 5.

1 × 3 = 3, therefore _____ is a multiple of 3.

1 × 4 = 4, therefore _____ is a multiple of 4.

Every number is a multiple of itself.

3. Observe the following:
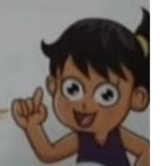
Number	Multiples	Smallest multiple
4	4, 8, 12, 16	4
7	7, 14, 21, 28	7
12	12, 24, 36	12

In each case, you can find unlimited multiples

The smallest (first) multiple of a number is the number itself.

There is no largest multiple of a number as multiples are unlimited.

4. Observe the following:

Multiples of 2 :

2, 4, 6, 8, 10, 12, 14, 16, 18…………..

Multiples of 4:

4, 8, 12, 16, 20, 24, 28, 32, 36………

We observe that the multiples of an even number are _____ numbers.

Multiples of 3:

3, 6, 9, 12, 15, 18, 21, 24, 27…….

Multiples of 5:

5, 10, 15, 20, 25, 30, 35, 40, 45……..

We observe that the multiples of an odd number are _____ and _____ alternatively.

Q1. Fill in the blanks:

a) Every number is a multiple of _____ and _____.

b) There is no _____ multiple of a number.

c) 5×6 = 30, so 30 is a multiple of 5 and _____.

d) 9 ×3 = 27, so _____ is a multiple of 9 and 3.

e) 10 ×4 = 40, so 40 is a multiple of _____ and _____.

f) 7, 14, 21, 28, 35 and 42 are multiples of _____.

g) Multiples of 9 are _____ and _____ numbers alternatively.

h) Multiples of 8 are _____ numbers.

i) There are _____ multiples of 25.

j) Every multiple of a number is _____ or equal to the number itself.

Q2. Let's practice:

a. Write the first five multiples of the following numbers:

   1)7
   2) 9
   3)12

b.. Write the three multiples of 8.

c. Write all the multiples of 6 between 20 and 50.

d Write the first four even multiples of 4.

e. Write the first five odd multiples of 11.

Put your thinking caps on!!!!!!!!!!