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Tender Heart High School; Sec-33 B, Chandigarh

Class :- IV
Subject :- Maths

Date :- 22.07.24
Teacher :- Ms. Sushma

Chapter-5
Multiples and Factors.

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

Properties of multiples :→

⇒ Every number is a multiple of 1.

⇒ Every number is a multiple of itself.

⇒ The smallest multiple of a number is the number itself.

⇒ Every multiple of a number is equal to or greater than the number itself.

⇒ There is no largest multiple of a number, as multiples are infinite.

⇒ A multiple of a number is divisible by the number itself.

Odd and even numbers :-

A number that is a multiple of 2 is called an even number. eg :- 2, 4, 6, 8, ...

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A number that is not a multiple of 2 is called an odd number. eg:- 1, 3, 5, 7, ...

Exercise 5.1

A. Find the first 5 multiples of these numbers.

1) 5

Soln:-
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25

2) 12

12 x 1 = 12
12 x 2 = 24
12 x 3 = 36
12 x 4 = 48
12 x 5 = 60

3) 38

38 x 1 = 38
38 x 2 = 76
38 x 3 = 114
38 x 4 = 152
38 x 5 = 190

4) 50

50 x 1 = 50
50 x 2 = 100
50 x 3 = 150
50 x 4 = 200
50 x 5 = 250

B. Write the first 3 multiples of the following numbers that are even.

1. 9.

Soln:-
9 x 2 = 18
9 x 4 = 36
9 x 6 = 54

2. 16

Soln:-
16 x 1 = 16
16 x 2 = 32
16 x 3 = 48

The multiple of an even number is always an even number.

3. 24

Soln:- $24 \times 1 = 24$
$24 \times 2 = 48$
$24 \times 3 = 72$

4 35

Soln:- $35 \times 2 = 70$
$35 \times 4 = 140$
$35 \times 6 = 210$

C. Write the first 3 multiples of the following numbers that are odd.

1. 5

Soln:- $5 \times 1 = 5$
$5 \times 3 = 15$
$5 \times 5 = 25$

2. 11

$11 \times 1 = 11$
$11 \times 3 = 33$
$11 \times 5 = 55$

3 $21 \times 1 = 21$
$21 \times 3 = 63$
$21 \times 5 = 105$

4 $45 \times 1 = 45$
$45 \times 3 = 135$
$45 \times 5 = 225$

D. Write the multiples of

1. 12 that are less than 60.

$12 \times 1 = 12$
$12 \times 2 = 24$
$12 \times 3 = 36$
$12 \times 4 = 48$

2. 4 that are greater than 40 but less than 60.

$4 \times 11 = 44$
$4 \times 12 = 48$
$4 \times 13 = 52$
$4 \times 14 = 56$

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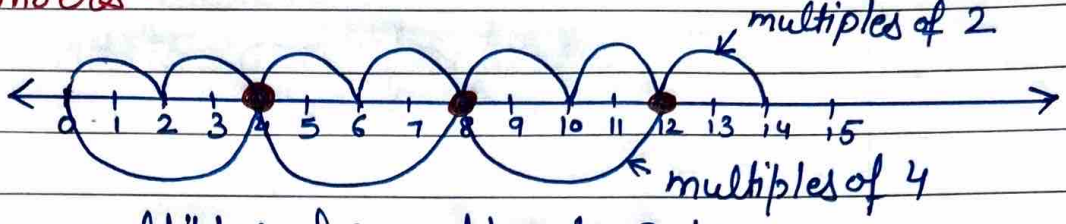
Exercise 5.2

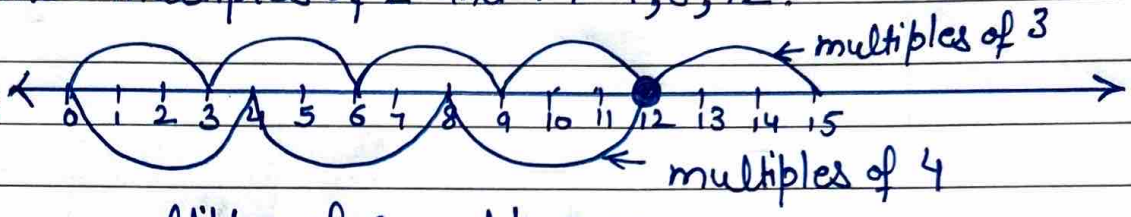
Q. Use the number line to find the common multiples of these numbers.

1. 2 and 4



The common multiples of 2 and 4 → 4, 8, 12.

2. 3 and 4



The common multiples of 3 and 4 → 12

Q. Write the first ten multiples of the following pairs of numbers. Then find the common multiples of each pair.

1. 2 and 3

Soln:- 2 → 2, 4, (6), 8, 10, (12), 14, 16, (18), 20
3 → 3, (6), 9, (12), 15, (18), 21, 24, 27, 30
Common multiples are → 6, 12, 18

2. 5 and 10

5 → 5, (10), 15, (20), 25, (30), 35, (40), 45, (50)
10 → (10), (20), (30), (40), (50), 60, 70, 80, 90, 100
Common multiples are → 10, 20, 30, 40, 50

3. 4 and 6

4 → 4, 8, (12), 16, 20, (24), 28, 32, (36), 40
6 → 6, (12), 18, (24), 30, (36), 42, 48, 54, 60
Common multiples are:- 12, 24, 36

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Q. Find factors using division.

1. 18

$$\begin{array}{r} 9 \\ 2\overline{)18} \\ -18 \\ \hline 0 \end{array} \qquad \begin{array}{r} 6 \\ 3\overline{)18} \\ -18 \\ \hline 0 \end{array} \qquad \begin{array}{r} 4 \\ 4\overline{)18} \\ -16 \\ \hline 2 \end{array} \qquad \begin{array}{r} 3 \\ 5\overline{)18} \\ -15 \\ \hline 3 \end{array} \qquad \begin{array}{r} 3 \\ 6\overline{)18} \\ -18 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 2 \\ 7\overline{)18} \\ -14 \\ \hline 4 \end{array} \qquad \begin{array}{r} 2 \\ 8\overline{)18} \\ -16 \\ \hline 2 \end{array} \qquad \begin{array}{r} 2 \\ 9\overline{)18} \\ -18 \\ \hline 0 \end{array}$$

Ans:- The factors of 18 are 1, 2, 3, 6, 9, 18

2. 56

$$\begin{array}{r} 28 \\ 2\overline{)56} \\ -4 \\ \hline 16 \\ -16 \\ \hline 0 \end{array} \qquad \begin{array}{r} 18 \\ 3\overline{)56} \\ -3 \\ \hline 26 \\ -24 \\ \hline 2 \end{array} \qquad \begin{array}{r} 14 \\ 4\overline{)56} \\ -4 \\ \hline 16 \\ -16 \\ \hline 0 \end{array} \qquad \begin{array}{r} 8 \\ 7\overline{)56} \\ -56 \\ \hline 0 \end{array}$$

Ans:- The factors of 56 are 1, 2, 4, 7, 8, 14, 28, 56