SUBJECT-MATHEMATICS TOPIC-MULTIPLES AND FACTO CLASS-V

MULTIPLE

• A multiple of a number is a product of that number a another number.

Here are the first five multiples

Of 5.



MORE ABOUT MULTIPLE

• Every number is a multiple of one.

• Every number is a multiple of itself.

EVEN AND ODD NUMBER

EVEN NUMBERS

Even numbers are those numbers which are multiple of 2.

Examples:2,4,6,8,10,....

ODD NUMBERS

Odd numbers are those numbers which are not n of 2.

• Example:1,3,5,7,9,.....

COMMON MULTIPLES

Multiples of 2: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24

Multiples of 4: 4, 8, 12, 16, 20, 24

Multiples of 6: 6, 12, 18, 24

Multiples of 8: 8, 16, 24

Since 24 is a multiple of 2, 3, 4, 6, and 8, it is considere common multiple.

LOWEST COMMON MULTIP

Let us take two number 3 and 4 Multiples of 3=3, 6, 9, 12, 15, 18, 21, 24,.... Multiples of 4=4, 8, 12, 16, 20, 24, 32,..... The common multiples of 3 and 4 are 12,24,..... The least common multiple is 12. Hence LCM of 3 and 4 is 12.

ACTIVITY

• Find the lowest common multiple of 10 and 12 by using grid.

PROCEDURE:

- *1st we have to draw a table of 10x10 grid i.e we have to we to 100 in that box.
- *Encircle all the multiples of 10 and all the multiples of 12.
- *we will notice that some number will common for the mul of 10 and 12.
- *Write all the common multiple and also see which one is to least common multiple. Here the least common multiple and and 12 will be 60.

FACTOR

• The factor of a whole number are the numbers divide into it exactly.



HOW TO FIND THE FACTO

Find the factor of 50.
solution:50=1x50
=2x25
=5x10
so the factors of 50 are 1,2,5,10,25 and 50

MORE ABOUT FACTOR

- 1 is the factor of every number.
- Every number is a factor of itself.
- 1 is the common factor for any two or more numbers

COMMON FACTORS

Let us take two number 10 and 15.
factors of 10: 1, 2, 5, 10
factors of 15. 1, 3, 5, 15
The common factors of 10 and 15 are 1 and 5.

HIGHEST COMMON FACT

Let us take two number 10 and 15.
 factors of 10: 1, 2, 5, 10

factors of 15: 1, 3, 5, 15

The common factors of 10 and 15 are 1 and 5.

Among this two factor 5 is the greatest.

So, the highest common factor(HCF) of 10 & 15 is 5.

1. Find the factors of 40,60 and 80.

- 2. Find the common factors of 20 and 50.
- 3. Find the HCF of 30 and 40 by listing factor me

FACTORS OF PRIME AND COMPOSITE NUMBER

PRIME NUMBER

- A number that has exactly two factors(1 and the number itself) is called a prime number.
- EX-2,3,5,7.....

COMPOSITE NUM

- A number that has more two factors is called a composite number.
- EX-4,6,10,100.....

PRIME FACTORIZATION

- Factorization in which every factor is prime, is called prime factorization of the number.
 - Prime factorization of 20=2x2x5
- A prime factorization will contain no composite num

METHODS OF PRIME FACTORIZATION.

There are two method for finding prin factorization of a given number. 1.Factor Tree Method 2.Division Method

PRIME FACTORIZATION BY FAC TREE METHOD

The Prime factorization of 240=2x2x2x3x5



METHOD OF PRIME FACTORIZATION BY DIVISION

The prime factorization of 40=2x2x2x5



*Do the prime factorization of 100 by factor tre method.

* Do the prime factorization of 70 by division method.

FIND LCM BY PRIME FACTORIZATION METHOD



LCM of 12 and 20 = (2 x 2) x 3 x 5 = 60

FINDING LCM AND HCF

Find LCM and HCF of 48 and 60.
 Solution:48=2x2x2x2x3

 60=2x2x3x5
 So, LCM=2x2x2x2x3x5=240
 HCF=2x2x3=12

SUMMARIZATION

Multiple is the product of that number with another number

The number which is multiple of 2 is called even number and which is a not a multiple is called odd number

*LCM is the least common multiple. *HCF is the highest common factor.



ASSIGNMENT

1.Find the LCM of 30 and 40. 2.Find the HCF of 70 and 14.

3.Do the prime factorization of 150 by division method.

4.Write all the prime numbers in between 50 an 5.Find the sum of first five multiples of 6.

<u>Worksheet on factors and</u> <u>multiples.docx</u>

