

Number and Sequences

ODD NUMBERS

Example of Odd Numbers

1, 3, 5, 7, 9, 11, 13

EVEN NUMBERS

Example of Even Numbers

2, 4, 6, 8, 10, 12, 14, 16.....

PRIME NUMBERS

Example of Prime Numbers

2, 3, 5, 7, 11, 13, 17, 19

FACTORS

Example

Find all the factors of 10

Solution:

Students must understand the product of two numbers to make up 10

1×10

2×5

Answer: 1, 2, 5, 10

Example

Find all the factors of 12

Solution:

1×12

2×6

3×4

Answer: 1, 2, 3, 4, 6, 12

Example

Find all the factors of 30

Solution:

$$1 \times 30$$

$$2 \times 15$$

$$3 \times 10$$

$$5 \times 6$$

Answer: 1, 2,3,5,6,10,15,30

Prime Factors

Prime factors are factors which are prime numbers

Example

Find all the factors of 10

Solution:

Students must understand the product of two numbers to make up 10

$$1 \times 10$$

$$2 \times 5$$

Factors are: 1, 2, 5, 10

Answers: 2 , 5

Example

Find all the factors of 12

Solution:

$$1 \times 12$$

$$2 \times 6$$

$$3 \times 4$$

Factors : 1, 2, 3, 4, 6, 12

Answer: 2, 3

MULTIPLES

Example

List all the multiples for 4 which are less than 40

Solution

4 , 8, 12, 16, 20, 24, 28, 32, 36, 40

Example

List all the multiples for 5 which are less than 30

Solution:

5 , 10, 15, 20, 25, 30

Example

List all the multiples for 2 which are less than 12

Solution:

2, 4, 6, 8, 10, 12

LOWEST COMMON MULTIPLES

Example

Find the LCM for 12 , 9 and 24

Sol:

$$\begin{array}{l|l} 3 & 12, 9, \\ & 24 \\ \hline 2 & 4, 3, 8 \\ \hline 2 & 2, 3, 4 \\ \hline & 1, 3, 2 \end{array}$$

Ans : $3 \times 2 \times 2 \times 3 \times 2 = 72$

Example

Find the LCM for 36 , 12 , 7

Sol

$$\begin{array}{l|l} 3 & 36, 12, 7 \\ \hline 4 & 12, 4, 7 \\ \hline & 3, 1, 7 \end{array}$$

Ans : $3 \times 4 \times 3 \times 1 \times 7 = 252$

HIGHEST COMMON FACTOR

Example

Find the HCF for 36 , 12 , 8

Sol

$$\begin{array}{l|l} 2 & 36, 12, 8 \\ \hline 2 & 18, 6, 4 \\ \hline & 9, 3, 2 \end{array}$$

Ans : $2 \times 2 = 4$