



PRIMARY FOUR MATHEMATICS LESSON NOTES SELF STUDY LESSONS SET ONE

Given 22.5.2020

Dear Primary Four children, you are most welcome to Mathematics self- study lessons.

You will study one lesson daily. Use the following reference for further reading:

MK Mathematics Book 4.

LESSON 1

Theme : Numeracy

Topic : Patterns and sequences

Sub –topic : Types of numbers

By the end of this lesson, you should be able to;

- Identify the number system
- List different types of numbers

Ref. : MK Primary MTC book 4 page 58

Content : Types of numbers

Examples

Whole numbers: These are numbers that begin from zero consecutively to infinity. They include 0, 1, 2, 3, 4, 5,6,7,8,9,10...etc.

Counting / Natural numbers: These are numbers that are used in counting. The first counting number is one.ie 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, ...

Even numbers are numbers that are exactly divisible by 2. They are obtained by doubling a whole number.ie,

Whole numbers doubled	Even numbers
0 + 0	0
1 + 1	2
2 + 2	4
3 + 3	6
4 + 4	8
5 + 5	10
6 + 6	12

	etc
--	-----

From the table above, even numbers include, 0,2,4,6,8,10,12, ...etc.

Odd numbers are numbers that are not exactly divisible by 2. They all give remainder one when divided by 2.

Odd numbers are obtained by doubling a whole number and adding one to the result.

Study the table below.

Whole numbers doubled	add one to the result	odd numbers
0 + 0	0 + 1	1
1 + 1	2 + 1	3
2 + 2	4 + 1	5
3 + 3	6 + 1	7
4 + 4	8 + 1	9
5 + 5	10 + 1	11
6 + 6	12 + 1	13
	Etc	

Odd numbers include, 1,3,7,9,11,13, ...etc.

Prime numbers are numbers that have exactly two factors i.e., 1 and the number itself.

Study the table below.

Number	Factors	Type of number.
1	{1}	Not prime
2	{1,2}	Prime no.
3	{1,3}	Prime no.
4	{1,2,4}	Not prime
5	{1,5}	Prime no.
6	{1,3,6}	Not prime
7	{1,7}	Prime no.

Prime numbers include;2,3,5,7,11,13...etc.

Activity

List down;

- a) Even numbers less than 15.

- b) Odd numbers between 9 and 20
- c) Whole numbers between 100 and 110
- d) What is the sum of the first 4 even numbers?
- e) Find the difference between the 1st odd number and the 5th odd number.
- f) List Prime numbers between 10 and 20.

LESSON 2

Theme : Numeracy
Topic : Patterns and sequences
Sub –topic : Number sequences (Missing numbers)

By the end of this lesson, you should be able to;

- Identify the number system

Ref. : MK primary MTC book 4 pages 61 – 63

Content : Filling in the missing numbers.

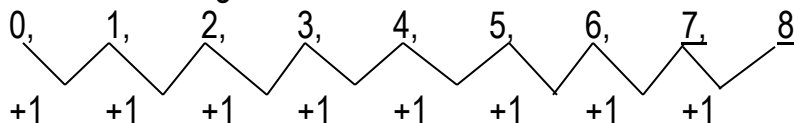
Note:

To find the missing numbers, you need to find the pattern used to find the given numbers.

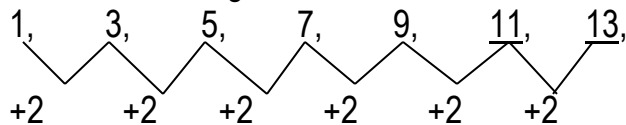
The next number can also be found by identifying the type of numbers that has been used in the sequence.

Examples

1. Find the missing numbers



2. Fill in the missing numbers



Activity

1. What are the missing numbers
- a) 0, 1, 2, _____, 4, _____, 6, _____, 8, _____
 - b) 1, 2, _____, 4, _____, 6, 8
 - c) 1, 3, 5, 7, 9, 11, 13, _____, _____, _____
 - d) 2, 4, 8, 16, _____, _____

- e) 5, 16, 27, 38, _____, _____
f) 0, 5, 10, 15, _____, _____

LESSON 3

Theme : **Numeracy**
Topic : **Patterns and sequences**
Sub –topic : **Multiple numbers**

By the end of this lesson, you should be able to;

- Find the multiples of a given number

Ref. : MK Primary MTC book 4 pages 64 – 65

Content : **Finding the multiples of Numbers.**

-A multiple is a result obtained by multiplying two numbers.

-Multiples of a specific number are the different results obtained by multiplying a specific number by counting numbers.

Examples

List the multiples of 2 up to 20

$$M_2 = 2 \times 1 = 2$$

$$2 \times 2 = 4$$

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$2 \times 6 = 12$$

$$2 \times 7 = 14$$

$$2 \times 8 = 16$$

$$2 \times 9 = 18$$

$$2 \times 10 = 20$$

$$\underline{M_2 = \{2, 4, 6, 8, 10, 12, 14, 16, 18, 20, \dots\}}$$

$$\begin{aligned}
 2. \quad M_6 = & \quad 6 \times 1 = 6 \\
 & \quad 6 \times 2 = 12 \\
 & \quad 6 \times 3 = 18 \\
 & \quad 6 \times 4 = 24 \\
 & \quad 6 \times 5 = 30 \\
 & \quad 6 \times 6 = 36 \\
 & \quad 6 \times 7 = 42 \\
 & \quad 6 \times 8 = 48 \\
 & \quad \underline{M_6 = \{6, 12, 18, 24, 30, 36, 42, 48, \dots\}}
 \end{aligned}$$

Activity

List down the first twelve multiples of the following numbers

- a) Multiples of 10
- b) Multiples of 8
- c) Multiples of 3
- d) Multiples of 7
- e) Multiples of 4
- f) Multiples of 9

LESSON 4

Theme : Numeracy
Topic : Patterns and sequences
Sub –topic : More about multiples of numbers

By the end of this lesson, you should be able to;

- Find the multiples of a specific number

Ref. : MK primary MTC book 4 page 66
Content : More about multiples of numbers

Examples

List the multiples of 9 less than 40

$$9 \times 1 = 9$$

$$9 \times 2 = 18$$

$$9 \times 3 = 27$$

$$9 \times 4 = 36$$

$$9 \times 5 = 45$$

$$\underline{M_9 \text{ less than } 40 = \{9, 18, 27, 36\}}$$

2. Find the multiples of 7 between 30 and 50

$$7 \times 1 = 7$$

$$7 \times 2 = 14$$

$$7 \times 3 = 21$$

$$7 \times 4 = 28$$

$$7 \times 5 = 35$$

$$7 \times 6 = 42$$

$$7 \times 7 = 49$$

$$7 \times 8 = 56$$

$$\underline{M_7 \text{ between } 30 \text{ and } 50 = \{35, 42, 49\}}$$

Activity

List the multiples of the following;

1. Multiples of 6 from 12 to 36
2. Multiples of 5 less than 30
3. Set $k = \{\text{multiples of } 8 \text{ less than } 50\}$. List the elements of set k .
4. Multiples of 3 between 20 and 30
5. Multiples of 4 between 30 and 40
6. Odd multiples of 5 less than 50

LESSON 5

Theme : Numeracy
Topic : Patterns and sequences
Sub –topic : Common multiples

By the end of this lesson, you should be able to;

- List the common multiples

Ref. : MK primary MTC book 4 page 66
Content : Finding common multiples (C.M)

Common multiples are similar multiples found in two or more sets of multiples of numbers. You need to first list multiples of the given numbers then compare them to identify the common multiples.

Examples

1. Find the common multiples of 3 and 6

$$M_3 = \{3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, \dots\}$$

$$M_6 = \{6, 12, 18, 24, 30, 36, 42, \dots\}$$

$$\underline{C.M = \{6, 12, 18, 24, 30, \dots\}}$$

Activity

Find the common multiples of;

- a) 2 and 3
- b) 3 and 5
- c) 4 and 5
- d) 6 and 7
- e) 8 and 9
- f) 5 and 7