Week one lesson four

SETS

Review of types of sets.

A set is a collection of well defined members or elements.

TYPES OF SETS (Review)

1. Empty set or null set.

This is a set without any members.

Symbol: { } or

e.g. Pupils in a class without heads.

2. Equivalent sets

These are sets with the same number of members but the members may be different.

Symbol: ⇔

e.g.
$$A = \{b, c, d, e\}$$
 $B = \{0, 1, 2, 3\}$

$$B = \{0, 1, 2, 3\}$$

set A is equivalent to set B

N.B. <≠> means "not equivalent to"

3. Equal sets

These are sets with the same number of members which are exactly the same.

Symbol: =

e.g.
$$K = \{a, b, c, c\}$$
 $L = \{b, a, c\}$

$$L = \{b, a, c\}$$

Set K is equal to set L because they have the same number and the same members.

$$K = L$$

4. Disjoint sets

These are sets without any common members.

e.g.
$$M = \{6, 7, 8\}$$

$$N = \{2, 3, 4, 5\}$$

Set M and set N don't have any common members.

REF: Primary MTC Bk 4 pg 1

- Understanding MTC bk 4 pg 1

- Primary MTC Bk 4 pg 9

- Primary school MTC bk 4 pg 1

Week one lesson five. UNION, INTERSECTION AND NUMBER OF MEMBERS

UNION SETS (Review)

This is a set which contains all the members in the given sets.

N.B. Common members are written once.

Symbol: U

e.g. Set
$$P = \{a, e, o, u\}$$

 $Q = \{2, 4, 6, 8\}$

Set PUQ =
$$\{a, e, o, u, 2, 4, 6, 8\}$$

INTERSECTION SET (Review)

This a set with the common members of the given set.

Symbol: "∩"

e.g.
$$P = \{1, 2, 3, 4, 5\}$$

 $B = \{0, 1, 3, 4, 5\}$

Find:

a)
$$P \cap B = \{2, 3, 4, 5\}$$

b)
$$P \cup B = \{0, 1, 2, 3, 4, 5\}$$

Find:

a)
$$A \cap B = \{ Orange \}$$

b) A U B = { Banana, Orange, Apple }

Week two lesson one. NUMBER OF MEMBERS (Review)

Symbol: n()

Examples

P = { a, b, c}
 How many members are in set P.

n(P) = 3 members.

2. M = { days of the week }
 Find n(M)

M = {Mon, Tue, Wed, Thur, Fri, Sat, Sub}

Find: n(M) = 7

REF: - Understanding

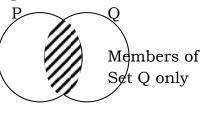
- Primary MTC bk 4 pg 14 – 15

- Kenya Primary MTC Bk 4 4 pg 15 - 16

Week two lesson two. VENN DIAGRAM (Review)

Representing information on a Venn diagram:

Members Of Set P only



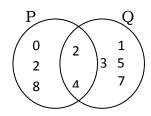
Example:

Given
$$P = \{0, 2, 4, 6, 8\}$$

 $P = \{1, 2, 3, 4, 5, 78\}$

Find: $P \cap Q = \{2, 4\}$ A UB = $\{0, 1, 2, 3, 4, 5, 6, 7, 8\}$

Represent the sets on a Venn diagram.

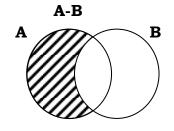


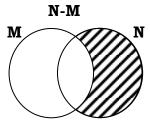
REF: MK bk 5 Pg 12 Primary MTC for Uganda bk 4 Pg 60 – 62MK Bk 4 Pg 11 – 14

Week two lesson three.

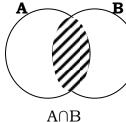
Shading Venn Diagrams (Review)

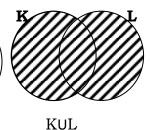
Example:







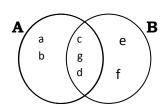






Week two lesson four.

Getting information from a Venn Diagram (Review)



List down all members of Set;

 $A = \{a, b, c, d, g\}$

 $B = \{ c, g, d, e, f \}$

 $A \cap B = \{c, d, g\}$

 $A \cup B = \{a, b, c, d, g, e, f\}$

 $n(A \cap B) = 3$ members

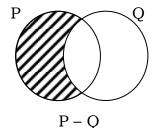
REF: MK Bk 5 pg 7

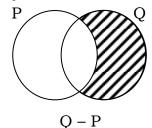
MK Bk 4 pgs 11 – 14

Week two lesson five.

<u>Difference of sets</u> (Review)

P – Q means members of set P which are not in Set Q, that is, members found in Set P only.





Example:

Given:

 $P = \{2, 3, 4, 6, 8, 9\}$

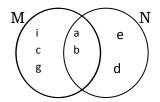
 $Q = \{1, 2, 5, 6, 7, 10\}$

Find:
$$P - Q$$

$$P - Q = \{3, 4, 8, 9\}$$

$$Q - P = 1, 5, 7, 10$$

Example II



Find:
$$M - N = \{i, c, g\}$$

$$N-M = \{d, e\}$$

Week three lesson one.

SUBSETS

A subset is a small set got from the main set.

Symbol: "C"

"¢" means not a subset of.

Example:

Given;
$$E = \{all pupils in P.4\}$$

$$K = \{ all boys in P.4 \}$$

$$B = \{all girls in P.4\}$$

Set B and set K are subsets of set E

Example

If:
$$D = \{1, 2, 3, 4\}$$

$$T = \{2, 4\}$$

$$S = \{1, 3\}$$

$$K = \{5, 6\}$$

T is a subset of D

S is a subset of D

K is not a subset of D

Given: $B = \{s,t,v\}$ Form subsets from set B

$$\{s\}, \{t\}, \{v\}, \{s, t\}, \{t, v\}, \{s, v\}, \{s, t, v\}, \{\}\}$$

- N.B. An empty set is a subset of the main set.
 - A set itself is a subset of that set.

Using a Venn diagram to represent a subset

Using a Venn diagram to represent subsets.

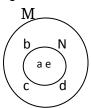


Set P is a subset of set Q

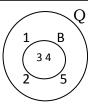
P C Q

Given: $M = \{a, b, c, d, e\}$ $N = \{a, e\}$

Represent the sets on a Venn diagram.



Find: $M \cap N = \{a, e\}$ $M \cup N = \{a, b, c, d, e\}$ $n(M \cup N)$ 5 Members



What is the relationship between P and

В5

B is a subset of P

Find: $P \cap B = \{3, 4\}$

REF: MK Bk 4 pg 17 (old edition)

MK Bk 4 pg 17 (new edition)

Week three lesson two. NUMERACY.

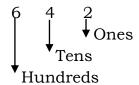
Whole Numbers

Place value and value of whole numbers (Review)

Numeral	Hundred Thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
7041			7	0	4	1
24,678		2	4	6	7	8
132,407	1	3	2	4	0	7

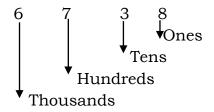
Finding the place value of the given digits.

What is the place value of 4 in 642?



:. The place value of 4 is Tens.

Find the place value of each digit in 6738.



The place value of 6 is ThousandsThe place value of 7 is HundredsThe place value of 3 is TensThe place value of 8 is Ones

REF: - Primary School MTC Bk 4 pg 8

- Learning MTC Bk 4 pg 5
- MK Bk 4 pg 20 (Old edition)

Week three lesson three.

Value of wholes(Review)

Value = digit x place value

Find the value of each of the digits in 672

Find the value of 0 in 6042

What is the value of 2 in 432?

REF: MK Bk 4 pg 20

Learning MTC Bk 4 pg. 6 Primary Science MTC Bk 4 pg. 8

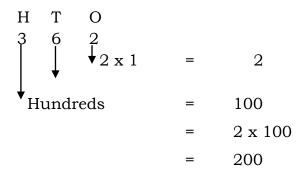
Week three lesson four. Application of values and place values

Example:

Find the sum of the value of 2 and 3 in the number 623.

What is the sum of the place value of 6 and 2 in the number 632?

Find the product of the value of 2 and place value of 3 in 362.



The place value of 2 is tens. What is its value.

Week three lesson five.

Writing whole numbers in words (Review)-up to thousands

1. Write 6438 in words.

Thousands	Hundreds	Units
6	4	38

6438 → Six thousand four hundred thirty eight.

2. Write 14,008 in words

Thousands	Hundreds	Units
14	0	08

14,008→ Fourteen thousand eight.

3. Express 240,402 in words

Thousands	Hundreds	Units
240	4	02

240,402 → Two hundred forty thousand four hundred two.

REF: MK Bk 4 pg. 22

Learning MTC Bk 4 pg. 6

Understanding MTC Bk 4 pg. 11

Week four lesson one. Writing in figures(Review)

Write "three thousand six hundred in figures".

Three thousand 3000 Six hundred +600 3600

Write in figures; "Sixty thousand five hundred twenty.

 Sixty thousand
 60000

 Five hundred
 500

 Twenty
 + 20

 60,520

REF: Understanding MTC bk 4 pg 13 Primary School MTC BK 4 PG 8 Learning MTC bk 4 pg 6 MK Bk 4 pg 23

Week four lesson two. Writing numerals in expanded form(Review)

Expand 3485 using place values

$$3485 = (3 \times 1000) + (4 \times 100) + (8 \times 10) + (5 \times 1)$$

Expand 3485 using values 3485 = 3000 + 400 + 80 + 5

Expand: 46,246 46,246 = 40,000 + 6000 + 200 + 40 + 5

REF: - MK Bk 4 pg 23

- Learning MTC Bk 4 pg 6

- Understanding MTC Bk 4 pg 14

Writing the expanded numbers in short. (Review)

Find the number which has been expanded to get;

REF: - Learning MTC Bk 4 pg 6
- Understanding MTC bk 4 pg 4

Week four lesson three.

ROMAN NUMBERALS (Review) - up to one hundred.

Basic Roman Numerals are;

$$1 = I$$
 $50 = L$ $1000 = M$
 $5 = V$ $100 = C$
 $10 = X$ $500 = D$

Roman numerals from 1 to 1000

Hindu Arabic	Roman numeral	Hindu Arabic	Roman numeral
1	I	8	VIII
2	II	9	IX
3	III	10	X
4	IV	50	L
5	V	100	С
6	VI	500	D
7	VII	1000	M

Week four lesson four.

Roman numerals got by repeating 1 and X;

Examples:
$$2 = 1 + 1 = II$$

 $3 = 1 + 1 + 1 = III$
 $20 = 10 + 10 = XX$
 $30 = 10 + 10 + 10 = XXX$
 $300 = 100 + 100 + 100 = CCC$

Roman numerals got by adding.

$$6 = 5+1$$
 $7 = 5+2$
= V+I = VI = VII

$$60 = 50 + 10$$
 $700 = 500 + 200$
= L + X = D + CC
= LX = DCC

Roman numerals got by subtracting from 5, 50, 100, 500 and 1000:

$$90 = (10 \text{ subtracted from } 100)$$

$$400 = (100 \text{ subtracted from } 500)$$

Week four lesson five.

Expressing Roman numerals into Hindu Arabic numbers.

Convert the following to Hindu Arabic numerals:

1. XIV =
$$X + IV$$

= $10 + 4$
= 14

Topical questions: MK Bk 4 pg 35

Week five lesson one.

OPERATION ON NUMBERS

Addition:

Words used in addition include; Sum, Total, Increase, Altogether, Add, e.t.c.

Examples:

1. Find the sum of;

2. There are 469 goats, 943 cows and 6401 chicken on the farm. How many animals are there altogether?

:. There are 7813 animals altogether.

REF: - Primary MTC for Uganda Bk 4 pg 23

- MK Bk 4 pg 38
- Primary School MTC bk 4 pg 14

Week five lesson two.

Subtraction of wholes

Words used include; Reduce, Decrease, Difference, e.t.c.

1. Subtract:

- b) 532867 - 314658 218209
- 2. Subtract 94 from 342.

3. What is the difference of 143 and 36?

4. Okot had Shs. 630. He bought a toy car for Shs. 560. How much money remained?

REF: - Primary MTC Bk 4 pg 30

- Primary MTC for Uganda bk 4 pg 20-32

- Understanding MTC Bk 4 pg 18-25

Week five lesson three.

Multiplication of wholes.

Multiplying of a 3/2 digit number by 1 digit number.

REF: Primary MTC for Uganda bk 4 pg 36 MK Bk 4 pg 46

Multiplying numbers by 10 and 20.

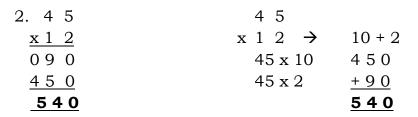
- 2. 4 2
- 2. 54
- 3. 3 2

 $\begin{array}{cccc} x & 1 & 0 \\ 4 & 2 & 0 \end{array}$

<u>x 1 0</u> **5 4 0** <u>x 2 0</u> **6 4 0**

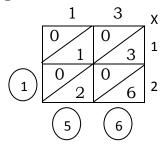
REF: MK bk 4 pg 50

Multiplying 2-digit numbers by 2 digit numbers



Multiplying using lattice method:

e.g. 13 x 12



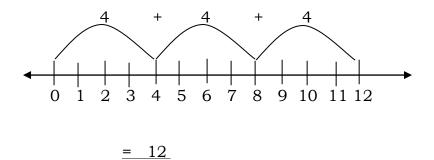
REF: Primary MTC for Uganda bk 4 pg 40 MK Bk 4 pg 50 Understanding MTC BK 4 pg 26-30

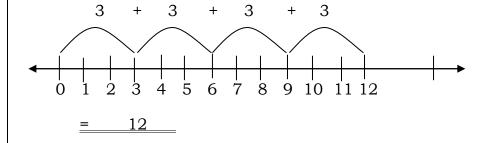
Week five lesson four.

MULTIPLICATION OF NUMBERS ON A NUMBERLINE

E.g.

1. 3 x 4





Week five lesson five. Divisions of 3 digit numbers by one digit

Use of long division

<u>.</u>	2 3 4	X	2
2	4 6 8	0	0
2 x 2=	<u>4</u>	1	2
	0 6	2	4
2x3=	<u>0 6</u>	<u>2</u> 3	6
	<u>0</u> 8	<u>4</u>	8
4x2=	<u>08</u>	5	10
	0 0	6	12
		7	14
		8	16
		9	18

Exp: 2 Share 570/= among 5 girls

$$\begin{array}{c|ccccc}
 & 1 & 1 & 4 & & x & 2 \\
 & 5 & 5 & 7 & 0 & & 0 & 0 \\
1 & x & 5 & 5 & & 1 & 5 \\
 & 0 & 7 & & 2 & 10 \\
1 & x5 & & 2 & 10 & & & \\
1 & x5 & & 2 & 10 & & & \\
2 & 0 & & 4 & 20 & & \\
4 & x5 & & 2 & 0 & & 6 & 30 \\
4 & x5 & & 25 & & 6 & 30 \\
7 & 35 & & 8 & 40 & & \\
9 & 45 & & & 9 & 45
\end{array}$$

= 114

DIVISIBILITY TEST

Divisibility test of 2:

A number is divisible by 2 when the last digit is even.

Divisibility test of 3:

A number is divisible by 3 when the sum of digits is divisible by 3.

e.g. a) 21 b) 144
$$= 2 + 1 = 1 + 4 + 4$$

$$= 3 = 9$$

$$= 3 \div 3 = 9 \div 3$$

$$= 1 = 3$$

Divisibility test of 5:

A number is divisible by 5 when the last digit is 5 or 0.

Week six lesson one.

INTRODUCTION OF COMBINED OPERATION USE BODMAS

B - Brackets

O - Of

D - Division

M - Multiplication

A - Addition

S - Subtraction

Exp. 1. Work out:
$$4 + 1 - 2$$

= $(4 + 1) - 2$
= $5 - 2$
= 3

2. Simplify:
$$4 + 2 + 5$$

= $4 + (2 \times 5)$
= $4 + 10$
= 14

Week six lesson two.

Properties of zero:

- $1. \ 0 \times 0 = 0$
- 2. Zero multiplied by any number gives 0.

i.e.
$$0 \times 25 = 0 \quad k \times 0 = 0$$

 $7 \times 0 = 0$

3. Zero added to any number gives the number to itself.

i.e.
$$0 + 40 = 40$$

 $8 + 0 = 8$

4. Any number to the power of zero gives one.

i.e.
$$4^0 = 1$$

 $100^0 = 1$

5. Zero divided by any number gives zero.

i.e.
$$0 \div 5 = 0$$
 $\frac{0}{21} = 0$

Properties of one:

1. Any number multiplied by one give the number itself.

i.e.
$$1 \times 20 = 20$$

 $y \times 1 = y$
 $0 \times 1 = 0$

2. Any number divided by one except zero gives the same number.

i.e.
$$\frac{4}{1} = 1$$

$$y \div 1 = y$$

Week six lesson three.

Magic square:

Identify the sum or magic number.

Exp. Given the magic square below, find the values of the letters.

6	а	8
b	5	С
2	d	4

Magic number =
$$2 + 5 + 8$$

= 15

$$a = 15 - (8 + 6)$$

$$= 15 - 14$$

$$= 1$$

Week six lesson four.

ARRANGING NUMBERS IN ASCENDING OR DESCENDING ORDER.

Ascending order (from small to big)

- 1. 10, 25, 8, 125 8, 10, 25, 125
- 2. 75, 38, 146, 238 38, 75, 146, 238

Descending order (from big to small)

- 1. 68, 29, 180, 140 180, 140, 68, 28
- 2. 758, 587, 857, 875 875, 857, 758, 587

Week six lesson five.

FORMING NUMBERS FROM GIVEN DIGITS UP TO THOUSANDS

Examples:

- 1. 1, 3, 2 123, 132, 213, 231, 312,321
- 2. 2, 5, 1, 4: Find the smallest and highest number formed.

The smallest is 1245

The highest is 5421

Week seven lesson one.

Estimating numbers

Examples to tens:

- 1. 23 ≈ 20
- 2. 46 ≈ 50
- 3. 125 ≈ 130

Examples to hundreds:

- 1. 142 ≈ 100
- 2. 361 ≈ 400

N.B. Use a number line.

Week seven lesson two. Rounding off:

1. Round off to the nearest tens:

- a) 47 T O 4 \mathcal{X} + 1 0
- b) 63 T O 6 3 + 0 0

<u>5</u> 0

6 0

<u>47 ≈ 50</u>

63 ≈ 60

- 2. Round off to the nearest hundreds.

Week seven lesson three.

INTRODUCTION TO POWERS / INDICES Using the formula for area of a square:

e.g. A =
$$5 \times 5$$

= 5^2

a)
$$4^2 = 4 \times 4$$

= 16

b)
$$10^2 = 10 \times 10$$

= 100

c)
$$3^2 = 3 \times 3$$

= 9

d)
$$5^2 = 5 \times 5$$

= 25

Week seven lesson four.

NUMBER PATTERNS AND SEQUENCE

A multiple is a product got after multiplying factors.

6 is a multiple of 2 since $2 \times 3 = 6$ where 2 and 3 are factors.

18 is a multiple of 1, 3, 6, 9 and 2 since

$$1 \times 18 = 18$$

$$2 \times 9 = 18$$

$$3 \times 6 = 18$$

List down all the multiples of 5 less than 27.

$$M5 = (1 \times 5), (2 \times 5), (3 \times 5), (4 \times 5), (5 \times 5)$$

$$.: M5 = \{5, 10, 15, 20, 25\}$$

REF: Learning MTC bk 4 pg

Week seven lesson five.

Finding the Lowest Common Multiples

1. List down 7 multiples of 6 and 3

$$M6 = \{6,12,18,24,30,42...\}$$

$$M3 = \{3,6,9,12,15,18,21\}$$

- 2. Find the Common multiples from the above set of multiples.
- 3. Find the L.C.M. of 3 and 6

The L.C.M of 3 and 6 is 6

REF: MK Bk 4 pg 67
Understanding MTC bk 4 pg 101
Learning MTC Bk 4 pg 19

Week eight lesson one.

FACTORS

Example

1. List down all the factors of 6.

$$\begin{array}{cccc}
1 & x & 6 \\
2 & x & 3
\end{array} = 6 \\
F_6 = \{1, 2, 3, 6\}$$

2. List down all the factors of 12.

3. List down all the factors of 48.

REF: MK Bk 4 pg 73

Week eight lesson two.

GREATEST COMMON FACTORS

Find the G.C.F. of 12 and 15

$$F_{12}$$
 1×12
 2×6
 3×4
 F_{12}
 F_{15}
 1×15
 3×5
 F_{12}
 F_{13}
 F_{14}
 F_{15}
 $F_$

REF: MK Bk 5 pg 82

Week eight lesson three.

TYPES OF NUMBERS

- 1. Whole numbers These start from 0: $\{0,1,2,3,4,5,6,7,\ldots\}$
- 2. Counting numbers Start from one: {1,2,3,4,5,6,7,8....}
- 3. Even numbers

These are numbers which are exactly divisible by 2 or a number when divided by 2 leaves 0 as a remainder. {2,4,6,8,10,....} The first even number is 2.

REF: MK Bk 4 pg 60 Supplementary MTC Bk 4 pg Learning MTC Bk 4 pg 17

4. Odd numbers

N.B.

These are numbers which are not exactly divisible by 2 or when divided by 2 leave a remainder as one.

Example: {3,5,7,9,11,13,15,17,......}

5. Prime numbers

A prime number is a number which has only two factors, that is, one and itself.

Prime numbers less than 50 are: $\{2,5,7,11,13,17,19,23,29,31,37,41,43,47\}$

6. Composite numbers

These are numbers that have more than two factors.

Example: {4,6,8,9,10,12,14,15,.....}

REF: Supplementary MTC bk 4 pg

Week eight lesson four. SEQUENCE

1. What is the next number in the sequence?

2. What is the next number in the sequence?

21, 18, 15, 12, 9 -3 -3 -3 -3 -3 -3 -3

3. Find the missing number.

2, 3, 5, 7, <u>11</u> (Prime numbers)

4. Find the missing number;

64, 32, 16, 8, _____

5. Find the next number.

1, 3, 9, 27, _____

REF: Understanding MTK Bk 4 pg 38

Week eight lesson five. GEOMETRY

Drawing line segments using rulers.

LINES

A line is a set of points illustrated as



Ray

A ray is a line with one end point.



A line segment has two end points.

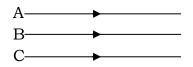
A line segment is named by its end points



Parallel lines

Parallel lines are lines which do not meet.

They have the same distance apart at every point.

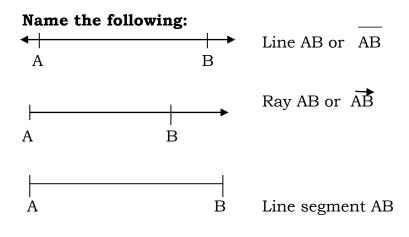


REF: MK BK 5 PG 175

Week nine lesson one.

Naming lines, rays and line segments.

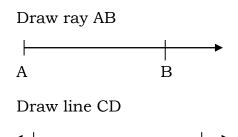
Lines are named according to the points through which they pass.



Drawing rays and lines

Example

D



Week nine lesson two.

Drawing line segments of given length

Instruments to use:

- A sharp pencil
- A ruler
- A pair of compasses

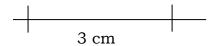
Example:

Draw a line segment of length 3 cm.

Procedure:

- Draw a line of any length
- Mark a point at the beginning of the line.

- Place a ruler on the marked point such that the point is marked "0" cm on t he ruller is a marked point on the paper.
- Measure 3 cm.



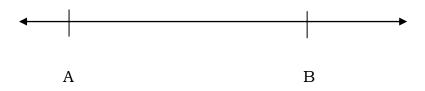
Measuring line segments

Instruments used:

- Ruler

Example:

Measure line AB



Procedure:

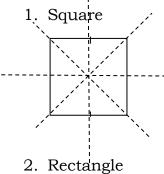
- Place the ruler at A such that the point marked 0cm is at point A.
- Take the reading which corresponds with point B, i.e.,
- -AB = 5cm

REF: Understanding MTC Bk 4 pg 7

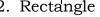
Week nine lesson three.

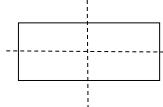
Drawing and naming quadrilaterals.

These are 4 sided figures e.g. squares, rectangles, rhombus, parallelograms, kites, trapeziums, etc.



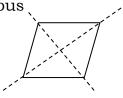
- It has 4 equal sides
- It has 4 lines of symmetry.





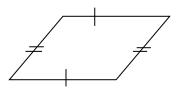
- It has 4 sides
- Opposite sides are equal
- Has two lines of symmetry

3. Rhombus



- It has 4 equal sides
- It has 2 lines of symmetry.

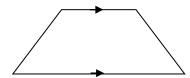
4. Parallelogram



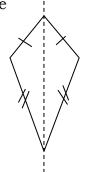
- It has 4 sides
- Opposite sides are equal and parallel
- Has one line of symmetry.

5. Trapezium





6. Kite



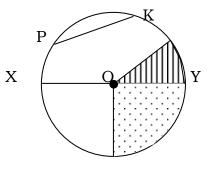
- Opposite sides are equal
- Has one line of symmetry

REF: MK BK 5 pg 184.

Understanding MTK bk 4 pg

Week nine lesson four.

Parts of a circle.



PK - Chord
XO - Radius
XY - Diameter
Shaded part- Sector
Dotted part - Quadrant

Week nine lesson five.

1. Finding diameter when radius is given.

 $D = r \times 2$

e.g. Find the diameter of circle whose radius is 5cm

Diameter =
$$r \times 2$$

= $5 \text{ cm } \times 2$
= 10 cm

2. Finding radius when diameter is given.

$$R = D \div 2$$

e.g. Find the radius of circle whose diameter is 14cm

Radius =
$$D \div 2$$

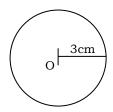
= $14 \text{ cm} \div 2$
= 7 cm

Week ten lesson one.

3. Drawing circles using a ruler and a pair of compass.

Exp. Construct a circle of radius 3cm.

- Draw a line and mark a point to be the centre of the circle.
- Open the compass to radius of 3cm.
- Draw a circle round the centre.



Week ten lesson two.

Types of angles:

1. Acute angle:

It is an angle which measures between 0° and 90°. e.g. 30°, 45°, 15°, 89°, etc.

2. Right angle:

It is an angle measuring exactly 90°.



3. Obtuse angle.

It is an angle which measures more than 90° but less than 180° .

4. Reflex angle.

It is an angle which measures more than 180° but less than 360°.

e.g. 185^o, 240^o, 350^o, etc.

REF: MK BK 5 pg 193.

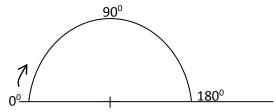
Week ten lesson three.

Drawing and measuring angles using a protractor.

1. Using outer scale.

Procedure:

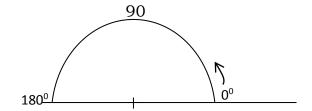
- Draw a line
- Mark a point on the line
- Place the protractor such that its centre is on the point marked on the line.
- Take the reading starting from zero clockwise.



2. Using inner scale.

Procedure:

- Draw a line
- Mark a point on the line
- Place the protractor such that its centre is on the point marked on the line.
- Take the reading starting from zero anticlockwise.



REF:

MK Mathematics Bk 5 pg 195

Understanding MTC BK 4 pg 87.