TERM ONE
SET CONCEPTS

What is a set?

- A set is a collection of well-defined objects.
- Things found in a set are called members or elements.

Example of sets.

a) A set of the first five letters of alphabet.



b). A set of 2 trees.



Exercise 1a;

Draw and name the following sets;

1. A set of 4 girls. 2) A set of 5 chairs. 3) A set of 3 stars. 4) A set of 2 huts.

TYPES OF SETS.

1. Equal sets 2). Non-equal sets 3). Equivalent sets 4) Non – equivalent sets
5). Empty sets 6). Intersecting sets 7). Union set.

EQUAL or IDENTICAL SETS (" =")

- Equal sets are sets which have exactly the same type of members.

Example;

1. Set A = { c , u , t } and B = { t , u , c }

Set A is equal to set B.

A = B

NON- EQUAL SETS (≠)

- Non –equal sets which have different number of members of different kind.

Example;

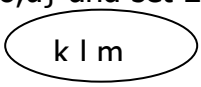
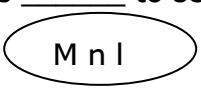
Set B={e, t, o} and set D= {b, y}

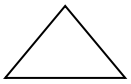
Set B is not equal to D.

$B \neq D$

Exercise 1b;

Write equal or not equal.

1. Set P={1, 2, 3, 4, 5} and set Q ={3, 5, 2, 1, 4}. Set P is _____to set Q.
2. D={a, i,o,u} and set E={e, f, g}. Set D is _____ to set E.
3. Set S=  and set T =  Set S is ___ to set T

4. R={  ,  } and set O ={  ,  }Set R is _____ to set O.

MATCHING OR EQUIVALENT SETS " ↔

- Equivalent sets are sets with the same number of members but may be of different kind.
- All equal sets are equivalent but not all equivalent sets are equal sets.

EXAMPLE

P = { a , e , i , o , u } and Q = { 1 , 2, 3, 4, 5 }.

Set P has 5 elements and set Q has 5 elements.

Set P is equivalent to set Q.

P $\leftrightarrow$ Q

NON- EQUIVALENT SETS

- Non – equivalent sets do not have the same number of members.

S = { c , o , w } and T = { w , s }

Set S has 3 members and set T has 2 members.

S is not equivalent to set T

S $\not\leftrightarrow$ T

Exercise 1c;

Write Equivalent or not equivalent.

1. Set E={ a, b, c, d, } and set F ={2, 4, 6, 8}. Set E has __elements. Set F has __ members. Set E is _____ to set F.
2. Set M ={p, q, r, s,t} and set N ={u, v, w, x} .Set M has ___members. Set N has __ members. Set M is _____ to set N.
3. A= k l m n o and set B= P m n Set A has __elements.Set B has _elements. Set A is ___ to set B.

EMPTY or NULL SET " ∅ Or, { }"

- An empty set is a set without members.
- Another name for empty set is a null set.

Examples

a) Set K = {Pupils in p 3 with 10 legs}

Set K = ∅ or { }.

b) Set R = {Our teachers with less than 3 years of age}

R = ∅ or { }.

NUMBER OF ELEMENTS IN A GIVEN SET e.g n(P).

Examples ;

1. If K={a,b,c,d}.Find n(K)

K={a,b,c,d}

n(K)=4

2. Given that set R = P m n

How many members are in set R ?

R={ p, m, n,}

There are 3 elements in set R. or n(R)=3

Exercise 1e;

1. If set P={1, 2, 3, 4, 5, 6, 7}.Find n(P)
2. Given that D={ a, e, I ,o, u}. How many elements are in set D?

3. Set Y={h, m, j, h, r, i}.Find n(Y).
4. If set W={e, f, g, h}. What is n(W)?
5.

INTERSECTING SETS " ∩"

- Intersecting sets are sets with common members or elements.

Example:-

1. Set F = { e , a , r , } and set G = { l , e , a , n }

F={e a r}

G={l, e a n}

Common members ={e , a }

- So set F and set G is intersection sets.

F ∩ G= {e, a}

- Common members are written only once.

Example 2.

Set A = { d , i , g }and set B = { d , o n , e }

A={g, i, d}

B={d o, n, e}

A ∩ B = { d }

Exercise 1f;

1. If set A={1, 2, 3, 4, ,5} and set B={2, 4, 6, 8}. Find A∩B.
2. Given that P={a, e, I, o, u} and Q={a, b, c, d}.What is P∩Q ?
3. Set W={ o, p q, r, s} and set R={m, n, o, p}.List down all the elements of set W∩R.
4. M={b, o, y, s} and N={c, a, m, b, s}List down all the elements of set M∩N.

Finding the number of elements in intersection sets.

Example 1

M = { a , b , c , d , e } and N = { a , e , i , o ,u }. Find n (M ∩ N)

M={a, b, c, d, e}

N={a, e, i, o, u }

M ∩ N = {a, e}

n (M ∩ N)=2

Example 2

Set A = { d , i , g }and set B = { d , o n , e }.How many members are in set A∩B

A={g, i, d}

B={d, o, n, e}

A ∩ B = { d }

There is one member in set A∩B.

OR n(A∩B)= 1.

Exercise 1g;

1. If set A={1, 2, 3, 4, ,5} and set B={2, 4, 6, 8}. Find n(A∩B).
2. Given that P={a, e, I, o, u} and Q={a, b, c, d}.What is n(P∩Q) ?
3. Set W={ o, p q, r, s} and set R={m, n, o, p}.How many elements are in W∩R?.
4. M={b, o, y, s} and N={c, a, m, b, s}How many elements are in M∩N?.
5.

UNION SET " ∪"

A Union set is a set with two or more sets put together.

- In a union set a member is written once.

Example;1

Given that W = {1, 2,3} and set Z = { x, y, z }. Find W∪Z

Set W Union set Z = { 1,2,3,x,y,z }

W ∪ Z ={ 1,2,3,x,y,z }

Example;2

Set F={c,a,r,e,s} and G={c,o,n,e,s}. List down all the elements of set F∪G

F={c, a, r, e, s }

G={c, o, n, e, s }

F∪G={c ,e ,a, r ,s ,o ,n}

Exercise 1 h

1. If set D={1, 2, 3, 4, ,5} and set C={2, 4, 6, 8}. Find (D∪C).
2. Given that P={a, e, I, o, u} and Q={a, b, c, d}.What is (P∪Q) ?

3. Set S={ o, p q, r, s} and set T={m, n, o, p}.List down all the elements of set (S∪T)
4. M={b, o, y, s} and N={c, a, m, b, s}List down all the elements of set (M∪N).
5.

Finding the number of elements in a Union set.

Example;

Set F={c,a,r,e,s} and G={c,o,n,e,s}. Find n(F∪G)

F={c, a, r, e, s }

G={c, o, n, e, s }

F∪G={c ,e ,a, r ,s ,o ,n}

n(F∪G)=7.

Exercise 1i

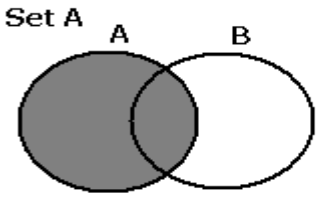
1. If set D={1, 2, 3, 4, ,5} and set C={2, 4, 6, 8}. Find n (D∪C).
2. Given that P={a, e, I, o, u} and Q={a, b, c, d}.What is n (P∪Q) ?
3. Set W={ o, p q, r, s} and set R={m, n, o, p}.How many elements are in W∪R?
4. M={b, o, y, s} and N={c, a, m, b, s}How many members are in M∪N?.
5.

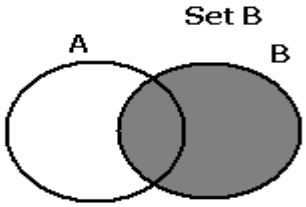
Revision

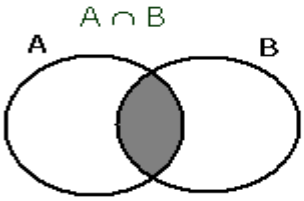
Name the following set symbols;

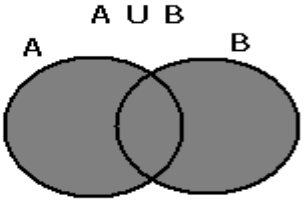
1. = ; _____
2. ≠;_____
3. ↔;_____
4. ∅ ;_____
5. ∈ ; Is a member of or an element of
6. ∪;_____
7. Is not a member of ∉
8. Number of members in set P n(P)

Shading regions on a Venn diagram





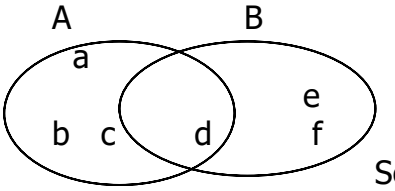




Using Venn diagrams to solve set problems.

Example 1 :-

Study the Venn diagram below and answer the questions that follow;



a) List down all the elements of set A.
set A={a, b, c, d}

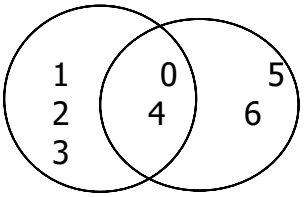
b) List the members of set B.
Set B = {d, e, f}

c) Find; i) $A \cap B$.
$A \cap B = \{d\}$

ii) $A \cup B$.
$A \cup B = \{a, b, c, d, e, f\}$

Example 2.

Study the Venn diagram below and use it to answer the questions that follow;



a) Find n(J)
Set J={0, 1,2, 3, 4}
n(J)=5

b) How many members are in set K?
Set K={0,4,5,6}
There are 4 elements in set K.
OR; n(K) =4

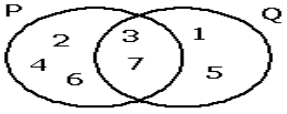
c) $n(J \cap K)$.
$J \cap K = \{0,4\}$

$n(J \cap K) = 2$

d) List down all the elements in set $J \cup K$.
$J \cup K = \{0,1,2,3,4,5,6\}$.

Exercise 1J

Study the Venn diagram below and answer the questions that follow;



a) List down all the elements of set P.
b) Find PUQ
c) How many members are in set P∩Q
d) What is n(Q)?

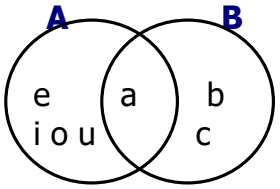
FILLING IN VENN DIAGRAMS

Example 1:-

Given that Set A = { a , e , i , o , u } and set B = { a , b , c , d , }

a) Fill in the Venn diagram below using set A and B

Note; Start with the intersection part.



b) How many members are in set A?

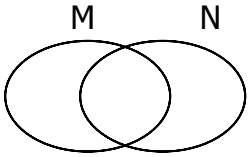
c) , Find;

i) n(B) ii) A ∩ B ii) n(A U B)

Exercise 1K

1. If set M = { 1 , 2 , 3 , 4 , 5} and set N = { 0 , 2 , 4 }

a) Fill in the Venn diagram using set M and N.



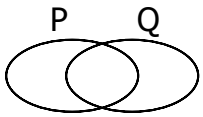
b) Find; n (M).

c) How many elements are in set N?

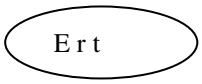
d) n(M∩N) e) n(M∪N)

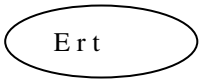
TOPICAL TEST 1:

1. Set F = {flies as big as a cow}. Name set F.
2. Draw a set of 4 trees.
3. Shade P∪Q in the diagram below:

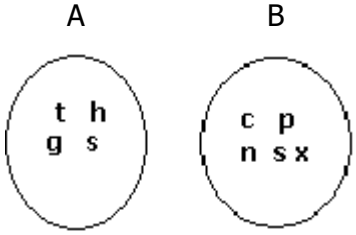


4. Name the following set symbols; a) {} b) ↔ c) ≠
5. Given that set F={0, 2, 4,6,8}.Find n(F)
6. If set Q={a, e, i, o, u} and set R={a, b, c, d, e}. a)How many members are in set Q∩R? b)Find Q∪R
7. Use: =, ≠ or ∅ to complete the following.
   a) Set H={1, 2, 3, 4, 5} _____Set G={a, b, c, d}
   b) A set of men who are pregnant_____
   c) Set W _____Set R



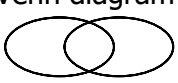


8. Study the Venn diagram below and answer the questions that follow;



a) Find; A U B
b) How many members are in A n B?
c) Find; n(B)
d) List down all the elements of set A.

9. Given that set Q={a, e, I, o, u} and set R={a, b, c, d, e}.
   a. Complete the Venn diagram below using set Q and R above



NUMERATION SYSTEMS AND PLACE VALUES.
PLACE VALUES.
ONES, TENS, HUNDREDS, THOUSANDS:
EXAMPLE:
What is the place value of 3 in the 4325 ?

THOUSANDS	HUNDREDS	TENS	ONES
4	3	2	5

The place value of 3 in the number 4325 is Hundreds.

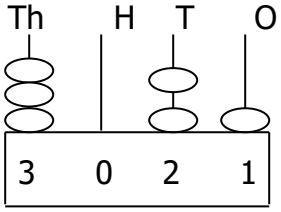
Exercises 2a

Write the place values of the underlined digits.
a) 89**2**1 b)**3**367 c) **1**02 d) 64**9** e) **5**720

Exercise 2b
Complete the following:

a) 4675= _thousands,_hundreds, __tens,__ones.
b) 904 = _hundreds __tens __ones.
c) 4341=_thousands__hundreds__tens__ones.
d) 3046=_thousands__hundreds_tens _ones.
e) 5890=_thousands _hundreds_tens_ones.

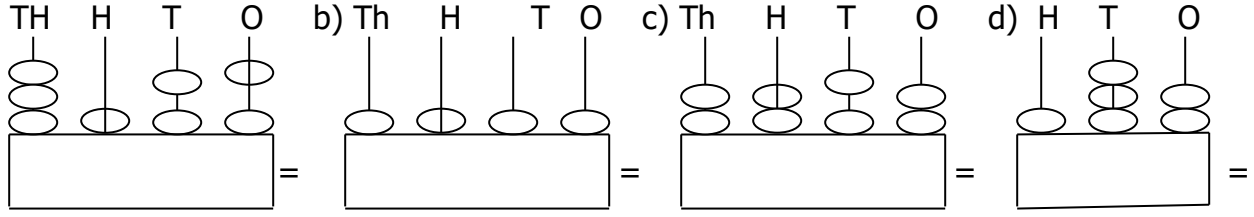
USING AN ABACUS
FINDING NUMBERS SHOWN ON THE ABACUS:
Example 1.
What number is shown on the abacus?



=3021

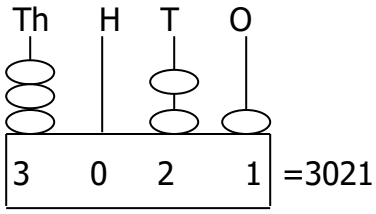
Exercises 2 c

What numbers have been shown on the abacus ?
a) TH H T O b) Th H T O c) Th H T O d) H T O



REPRESENTING NUMBERS ON THE ABACUS.
Example;

Show 3021 on the abacus.



Exercises 2 d

Show the following numbers on the abacus.
a) 656 b) 3601 c)210 d)5372 e) 7521 f) 426.

FINDING THE TOTAL VALUES OF NUMBERS.

Example 1:-

Find the total value of 4 in the number:

a) 148.

H T O
1 4 8
↳ 4 tens = 4 x 10
= 40.

b) 4580

Th H T O
4 5 8 0
↳ 4 thousands=4x1000
=4000.

Exercise 2e:

1. Calculate the value of the underlined digits :
a) **5**642 b) 6**9**32 c) 10**6**4 d) 97**8** e) **2**108 f) 5**4**97

ADDITION OF VALUES ;

Example:-

7 tens + 5ones=
= (7 x10) + (5 x 1)
= 70 + 5
= 75.

Exercise 2f

Let us workout the following :

1. 2tens plus 2 ones. 2) 5hundreds +4 tens
3. 6thousands +6hundreds.
4. 8hundreds +6tens +7ones.
5 3thousands and 3tens.

Subtraction of Values

Example

1. 5 tens – 3tens =
= (5 x 10) – (3x10)
= 50 – 30
= 20.

EXERCISE 2g

Workout the following :

1. 4tens -2tens. 2) 3hundreds minus 1hundred
3. 8thousands -7thousands.

Multipulication of values

Example

4 tens x 6 ones =
= (4 x 10) x (6 x 1)
= 40 x 6
= 240.

Exercise 2h

Workout the following ;

1. 2tens x 3ones 2) 4hundreds x 4ones.
3. 8tens x2 4) 5thousands x3

WRITING IN WORDS.

Example:-

Write 6427 in words.

Exercise 2i.

Write the following in words
a) 435 b) 8648 c)2001 d)6500 e)4095 f)8103

TH H units
6 4 2 7

6000 = Six thousand.
400= Four hundred.
27= Twenty-seven.
∴6427 = Six thousand four hundred twenty seven.

Writing in figures

Example:-

Write two thousand four hundred ten in figures.
Two thousand = 2000
Four hundred = 400
Ten = + 10
2410

Exercise 2j

Write the following in figures.

1. Three thousand, twenty two.
2. Five hundred five.
3. Two thousand, two hundred two.
4. Six thousand, four hundred ninety.
5. Nine thousand nineteen.

WRITING NUMBERS IN EXPANDED FORM

Example:-
Expand 312

H T O
3 1 2

312= (3 hundreds) + (1 tens) + (2 Ones)
= (3 x 100) + (1 x 10) + (2 x 1)

Method II

H T O
3 1 2

2x1 =2
1x10=10
3x100=300

Note: Write from down upwards.

312 =300 +10 +2

Exercise 2K

Write the following in expanded form

1. 275 2) 7856 3)1002 4)5471 5)8509

2. Expand 5748 using values

TH H T O
5 7 4 8

5748= (5 thousands) + (7 hundreds) + (4 tens) + (8 ones)
= (5 x 1000) + (7 x 100) + (4 x 10) + (8 x 1)
= 5000 + 700 + 40 + 8.

Method II

TH H T O
5 7 4 8

8x1=8
4x10=40
7x100=700
5x1000 =5000

5748=5000 +700 +40 +8

FINDING OUT THE EXPANDED NUMBER

Example:-

1. Which number is shown by this expansion;7000 + 40 + 8?

TH H T O

$$\begin{array}{r} 7\ 0\ 0\ 0 \\ \quad\ 4\ 0 \\ +\qquad 8 \\ \hline 7\ 0\ 4\ 8 \end{array}$$

2 Which number has been expanded to give;
(4x1000)+(7x100)+(5x10)+(6x1)?

$$\begin{array}{rl} 4x\ 1000= & 4\ 0\ 0\ 0 \\ 7x100 = & \ \ 7\ 0\ 0 \\ 5x10 = & \ \ \ \ 5\ 0 \\ 6x1 = & +\qquad 6 \\ \hline & 4\ 7\ 5\ 6 \end{array}$$

Exercise 2L

What number has been expanded to give:

1. 6000+60+6 2). (2x100) + (3x10)+(8x1) 3)7000 +300 +50 +6
4. (9x1000) +(2x100) +(3x10) 5). 4000+ 500 +60 +2

ROMAN NUMERALS

- Major Roman numerals are:-

I	V	X	L
1	5	10	50

The Hindu –Arabic numerals are ;0, 1, 2, 3, 4, 5, 6, 7, 8 and 9

- Roman numerals got by adding 1 are;2 and 3

2 = 1+ 1 3= 1 +1+ 1
=I + I = I + I +I
=II =III

- Roman numerals got by adding to 5 are 6, 7, 8

- The Roman numeral got by subtracting are;. 4, 9, 40

4=5-1 9=10-1
=V-I =X-I
=IV =IX

NOTE;

- Roman numerals which can never be repeated are V, L
- Roman numerals are not repeated more than three times.

Expressing Hindu Arabic numeral as Roman Numerals

Example:- (Expand and change to Roman numerals.)

1. 19 = 10 + 9 | s/w
   = X + IX | 10
   = XIX | +9
   | 19

2. 36 = 30 + 6
   = XXX + VI
   = XXXVI

Exercise 2m

Write the following as Roman numerals:

1. a) 8 b) 15 c) 24 d) 39 e)12 f)28
2. Ann is 14years old. Write her age in Roman numerals.
3. John has 26 cows. How many cows does he have in Roman numerals?

Changing Roman numerals to Hindu Arabic numerals

Note; Expand and change to Hindu Arabic numerals

Example: -

XIX = X + IX | s/w
= 10 + 9 |
= 19 | 10
| +9
| 19

or XIX =
X = 10
IX = +9
= 19 Ans.

Exercise 2n

Change the following to Hindu-Arabic numerals.

1. a) XXII b) XIV c) XXXV d)XVIII
2. Jane is XI years old. Write her age in Hindu-Arabic numerals.
3. Henry weighs XXXVI kilograms. Find his age in Hindu-Arabic numerals.

TOPICAL REVISION.

1. a) Write ;Three thousand three in figures. b) Write 24 in Roman numerals.
2. Complete; 2436=_thousands_hundreds_tens _ones.
3. What number has been expanded to give; 4000+400+4?
4. John is XXXVII years old. Write his age in Hindu-Arabic Numerals.
5. Workout; a) 4tens and 3ones. b) 6hundreds -4hundreds. c) 2thousands x3
6. Given the number; 6390.
   a) Write the place value of 3 in the number above.
   b) Write the digit that is in the place of tens in the number above.
   c) Calculate the value of 6 in the number above.
   d) Express the above number in expanded notation.
   e) Write the above number in words.

OPERATIONS ON NUMBERS;

ADDITION;

ADDI WITHOUT CARRYING.

Example: -

1. 542 + 22 = 564

2. 6241 + 3333 = 9574

3. 15 + 22 + 10 + 15 + 22 + 10 = 47

Exercise 3a

Workout the following;

1. a) 78 + 1 = ___ b) 82 + 16 = ___ c) 436 + 33 = ___ d) 572 + 427 = ___ e) 6233 + 222 = ___ f) 5555 + 4444 = ___

WORD PROBLEMS INVOLVING ADDITION WITHOUT REGROUPING.

KEY WORDS;

Add, sum, total, increase, altogether etc

Exercise 3b.

1) Add 342 + 56

2) Increase 4230 by 432

3) Find the sum of 65 apples and 33 apples.

4) Nancy had 224 cows. Her father gave her 33 more cows. How many cows did she have altogether?

5) What number is 4 more than 96?

ADDITION OF 2-DIGIT NUMBERS WITH CARRYING OR RE-GROUPING.

Example:-

1. $\overset{1}{4}6 + 4 = 50$, $\overset{1}{1}0$

6 +4 =10 so Write 0 under ones and carry 1 to the tens place value.

2. $\overset{1}{3}8 + 56 = 94$, $\overset{1}{1}4$

8+6 =14 so write 4 under ones and carry 1 to the tens place value.

Exercise 3c

Workout the following;

1. 35 + 6 = ___ 2) 84 + 17 = ___ 3) 22 + 98 = ___ 4) 46 + 44 = ___ 5) 75 + 17 = ___ 6) 69 + 88 = ___

7. Add 57 +87

8) Increase 36 by 99

9) What number is 16 more than 27?

10) Mary had 47 books. She bought 23 more books.How many books does she have in total?

ADDITION OF 3-DIGIT NUMBERS WITH CARRYING OR RE-GROUPING.

Example:-

1. $\begin{array}{r} {\scriptstyle 1\ \ } \\ 537 \\ +47 \\ \hline 584 \\ {\scriptstyle 14} \end{array}$ 7+7=14 so write 4 under ones and carry 1 to tens.

2) $\begin{array}{r} {\scriptstyle 1\ \ } \\ 876 \\ +115 \\ \hline 991 \\ {\scriptstyle 11} \end{array}$ 6+5=11 so write 1 under ones and carry 1 to tens.

Exercise 3c

Workout the following;

1. $\begin{array}{r} 154 \\ +36 \\ \hline \\ \end{array}$ 2) $\begin{array}{r} 658 \\ +222 \\ \hline \\ \end{array}$ 3) $\begin{array}{r} 927 \\ +88 \\ \hline \\ \end{array}$ 4) $\begin{array}{r} 580 \\ +237 \\ \hline \\ \end{array}$ 5) $\begin{array}{r} 417 \\ +758 \\ \hline \\ \end{array}$ 6) $\begin{array}{r} 563 \\ +559 \\ \hline \\ \end{array}$

7. In Kabojja Junior School, there are 354 boys and 478 girls.How many pupils are there altogether?
8. A farmer collected 873 bags of rice in June and 59 bags in July. How many bags did the farmer collect in the two months.
9. In a certain village, there are 752 men and 648 women. Find the total number of people in that village.
10. Add 529 mangoes to 865 mangoes.

ADDITION OF 4-DIGIT NUMBERS WITH CARRYING OR RE-GROUPING.

Example:-

1. $\begin{array}{r} {\scriptstyle 1\ \ \ \ } \\ 4335 \\ +335 \\ \hline 4670 \\ {\scriptstyle 10} \end{array}$ 5+5=10.Write 0 under ones and carry 1 to tens.

2) $\begin{array}{r} {\scriptstyle 1\ 1\ \ } \\ 674\ 2 \\ +2159 \\ \hline 8901 \\ {\scriptstyle 10\ 11} \end{array}$ 2+9=11so write 1under ones and carry 1 to tens. 1+4+5=10 so write 0 under tens and carry 1 to hundreds.

Exercise 3d

Workout the following;

1. $\begin{array}{r} 5371 \\ +529 \\ \hline \\ \end{array}$ 2) $\begin{array}{r} 7947 \\ +1166 \\ \hline \\ \end{array}$ 3) $\begin{array}{r} 1538 \\ +5543 \\ \hline \\ \end{array}$ 4) $\begin{array}{r} 7463 \\ +2457 \\ \hline \\ \end{array}$ 5) $\begin{array}{r} 8051 \\ +1889 \\ \hline \\ \end{array}$ 6) $\begin{array}{r} 9867 \\ +177 \\ \hline \\ \end{array}$ 7) $\begin{array}{r} 3445 \\ +4888 \\ \hline \\ \end{array}$ 8) $\begin{array}{r} 2222 \\ +5999 \\ \hline \\ \end{array}$

SUBTRACTION

SUBTRACTION WITHOUT BORROWING OR RE-GROUPING.

Example:-

1. 45 − 3 = 42
2) 59 − 24 = 35
3) 672 − 60 = 612
4) 323 − 222 = 101
5) 2354 − 334 = 2020
6) 8592 − 7450 = 1142

Exercise 3e

Workout the following;

1. 76 − 2 =
2) 54 − 34 =
3) 896 − 55 =
4) 8964 − 854 =
5) 2324 − 1111 =
6) 7290 − 230 =
7) 567 − 333 =
8) 9522 − 7310 =
9) 6238 − 222 =

WORD PROBLEMS

Key words

Decrease, minus, remove, reduce, subtract, difference, take away, Less than.

EXAMPLE:

1. Subtract 24 from 648.

$$\begin{array}{r} 648 \\ -\ 24 \\ \hline 622 \end{array}$$

2) What number is 15 less than 79?

$$\begin{array}{r} 79 \\ -\ 15 \\ \hline 64 \end{array}$$

Exercise 3f

Workout the following;

1. What is the difference between 643 and 231?
2) Decrease 5489 by 213.
3) What is 83 take away 40?
4. Sarah had 25 apples. If she ate 20apples, How many apples did she remain with?
5. Bob had sh. 300 and used sh. 200 to buy a pen, How much did he remain with?
6. In a certain school, there are 890 pupils. If there are 350 boys, how many girls are there?
7. Winny is 6 years younger than Jane. If Jane is 9 years old. a) How old is Winny?
b) How old was Jane 4 years ago?
8. Subtract 56 from 97
9) Reduce 763 by 222

SUBTRACTION OF 2 DIGIT NUMBERS WITH BORROWING;

Example:-

1. 2 10
   3 0
   -1 4
   1 6

0 -4 is impossible so borrow 1ten from 3 tens and add it to 0.
So 0+10 =10.Therefore 10-4=6.

2) 5 15
   6 5
   -3 7
   2 8

5-7 is impossible so borrow 1 ten from 6tens and add it to 5. So 5 +10=15.
Therefore 15-7=8

Exercise 3g

Subtract the following:

1. 5 0 -3 1
2) 7 2 -5 5
3) 4 4 -1 7
4) 2 3 -1 4
5) 8 6 -6 8
6) 3 1 -2 9

7. Reduce 82 by 47.
8) Subtract 34 from 80
9) What number is 14 less than 32
10. A farmer had 61 cows, if 19 of them died. How many cows remained?
11. In Primary three class, there are 95 pupils. If 36 of them are girls, how many boys are there?

SUBTRACTION OF 3- DIGIT NUMBERS WITH BORROWING;

Example:-

1. 2 2 10
   3 0
   -1 4
   2 1 6

0 -4 is impossible so borrow 1ten from 3 tens and add it to 0.
So 0+10 =10.Therefore 10-4=6.

2) 5 15
   3 6 5
   -2 3 7
   1 2 8

5-7 is impossible so borrow 1 ten from 6tens and add it to 5. So 5 +10=15.
Therefore 15-7=8

Exercise 3 h

Subtract the following:

1. 753 -24
2) 941 -833
3) 410 -109
4) 666 -47
5) 748 -519
6) 138 -156

SUBTRACTION OF 4- DIGIT NUMBERS WITH BORROWING;

Example 1:

3 12 11 10
4 3 2 0
- 6 5 1
3 6 6 9

MULTIPLICATION

Multiplication is repeated addition.

Meaning of multiplication.

Example;

4x 6 means four groups of six

4 x 6 = 6+6+6+6

=24

Exercise.

a) 3 x 2 = 6 b) 9 x 7 = 63

Exercise.4b

WORD PROBLEMS;

Key words.

Multiply, times, product, multiple.

Example:-

A spider has 8 legs. How many legs do 3 spiders have?

One spider has 8 legs .

3 spiders have (8x3)legs.

=24 legs.

SIMPLE MULTIPLICATION

Example:-

Exercise 4c

Multiplication 2 by 1 digits without carrying:

a) 13 b) 20

x3 x4

39 80

Exercise 4d

WORD PROBLEMS;

Example:-

One year has 12 months. How many months are there in 4 years?

1 year ⟶ 12 months.

4 years ⟶ (12 x 4) months

= 48 months.

Exercise 4e

Multiplication of 2 by 1 digit with carrying:

Examples:

1.
$$\begin{array}{r} {\scriptstyle 1}\\ 24\\ \times\ 3\\ \hline 72\\ {\scriptstyle 12}\end{array}$$

First multiply before adding ie 3x2=6 +1 =7

2.
$$\begin{array}{r} {\scriptstyle 1\ 1}\\ 15\\ \times\ 2\\ \hline 30\\ {\scriptstyle 10}\end{array}$$

Multiplying 3 by 1 digit numbers.

Examples

1.
$$\begin{array}{r} {\scriptstyle 1}\\ 123\\ \times\ 4\\ \hline 492\\ {\scriptstyle 12}\end{array}$$

2.
$$\begin{array}{r} {\scriptstyle 1}\\ 234\\ \times\ 3\\ \hline 702\\ {\scriptstyle 10\ 12}\end{array}$$

Multiplying 4 by 1 digit numbers.

Examples

1.
$$\begin{array}{r} {\scriptstyle 1} \\ 1\,1\,0\,3 \\ \times\quad\;\; 5 \\ \hline 5\,5\,1\,5 \\ {\scriptstyle 15} \end{array}$$

2.
$$\begin{array}{r} {\scriptstyle 1\;1} \\ 1\,0\,5\,7 \\ \times\quad\;\; 2 \\ \hline 2\,1\,1\,4 \\ {\scriptstyle 11\;14} \end{array}$$

KABOJJA JUNIOR SCHOOL
P.3 MATHEMATICS LESSON NOTES TERM TWO

DIVISION;

SIMPLE DIVISION WITHOUT A REMAINDER
Example:-

a) $6 \div 6 = 1$ b) $8 \div 2 = 4$

Exercise 5a
Using long division
Example:-

1. $3 \overline{)\,9}$, $3 \times 3 = 9$, $9 - 9 = 0$, quotient 3

2) $2 \overline{)\,2}$, $1 \times 2 = 2$, $2 - 2 = 0$, quotient 1

Exercise 5b

Word problems.
Key words.
Share, divide.
Example;

1. Share 8 books among 4 pupils. How many does each child get?

8books ÷4 =2books.

2. How many groups of three are in 6?

Division involving 2-digit numbers.
Example 1

$2 \overline{)\,22}$, quotient 11

$1 \times 2 = 2$, $22 - 2 = 02$

$1 \times 2 = 2$, $2 - 2 = 0$

Division involving 3-digit numbers.
Example 1

$2 \overline{)\,224}$, quotient 112

$1 \times 2 = 2$, $22 - 2 = 02$

$1 \times 2 = 2$, $24 - 2 = 04$

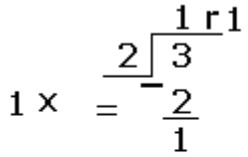
$2 \times 2 = 4$, $4 - 4 = 0$

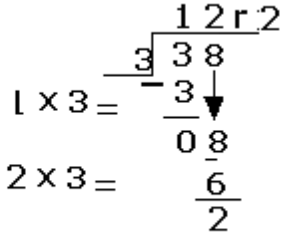
SIMPLE DIVISION WITH A REMAINDER
Examples

a) $5 \div 2 = 2$ r 1 b) $7 \div 3 = 2$ r 1

Division with a remainder using long division.

Examples





Exercise. 6c page 73.

WORD PROBLEMS

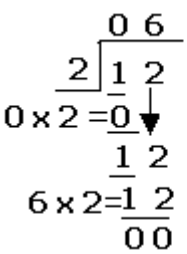
Example.

Share 23 sweets between 2 boys.

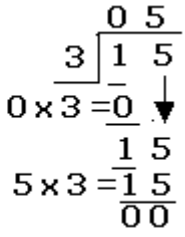
DIVISION INVOLVING COMPLEX PROBLEMS.

Examples:

1.



2.



Exercise. 6b page 73 , Ex 6d pg74 ,Ex 6f pg75 .

Word problems.

Example;

Share 36 pens among 9 pupils.

Exercise. 6g page 76-77.

Division through factor 10

Example

30 ÷ 10 = 3∅ ÷ 1∅.

= 3 ÷ 1

= 3 Ans.

NUMBER PATTERNS AND SEQUENCE

Types of numbers

1. Whole numbers.
   Whole numbers start from 0….. e.g. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11. . .
2. Counting numbers.
   Counting numbers start from 1…e.g. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 . . .
   Exercise;

3. EVEN NUMBERS ;
   An even number is a number that when divided by 2 leave a remainder as 0.
   e.g. 0,2,4,6,8,,10,12…….
   Key words used are; between, up to, from.
   Example
   Even numbers from 0 up to 20.
   {0,2,4,6,8,10,12,14,16,18,20}
   Exercise;

4. ODD NUMBERS;
   These are numbers which when divided by 2 leaves a remainder as 1.

   E.g. 1, 3, 5, 7, 9, 11 . . .
   Exercise;

COMPLETING SEQUENCES.

Example;

0 2 4 __6



+2 +2 +2

Exercise;

MULTIPLES;

A multiple is a product of two numbers.
Multiples of a number when divided by that number leave no remainder.
key words used are ;
Less than, between, up to and from
e.g. M_2 less than 10.

2x1= 2
2x2= 4
2x3= 6
2x4= 8

2x5= 10

$M_{2=}${2, 4, 6, 8}

Exercise;

FACTORS;

Factors are numbers that give rise to multiples Or products.
A number that divides another exactly is called a FACTOR.
key words used are ;

Less than, between, up to and from
e.g.

F_8= 1 x8=8
2 x4=8
4 x2=8
8 x1=8

F_8={1, 2, 4, 8}

Exercise;

FORMING NUMBERS FROM DIGITS.

Forming the smallest number from given digits

Example 8 , 6 , 7= 6 , 7 , 8
= 678.

Forming the biggest number from given digits

Example; 2,0,6,4=6,4,2,0
=6420

NB ; All the answers do not have commas.

Exercise;

FRACTIONS

A fraction is a part of a whole number.

PARTS OF FRACTIONS;

$\frac{3}{4}$ ——— numerator
4 _____ denominator

- Numerator is the top number of a fraction.
- Denominator is the bottom number of a fraction.

Names of fractions

Writing and reading fractions

Example:-

$\frac{1}{2}$ ⟶ a half $\frac{1}{3}$ ⟶ a third

Exercise;

TYPES OF FRACTIONS

Proper fractions, Improper fractions, mixed fractions, Equivalent fractions, Decimal fractions

Naming the shaded and unshaded fractions

Example: -

a)



Shaded = ½
Un shaded = ½

Exercise 1;

Write the shaded and unshaded parts.

Exercise 2;

Draw and shade the following: -

1. ¼,
2. ½,
3. ¾.

Comparing fractions:-

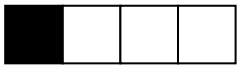
Using greater than (>) less than (<) and is equal to " ="

½ > ¼

½



¼



½ < ¾



½



¾

Exercise;

Fractions of wholes.

Example:-

$\frac{1}{2}$ of 6 = $\frac{1}{2}$ x 6

=(1x6)÷2
=6÷2
=3

Exercise;

ADDITION OF FRACTIONS

Addition with the same denominators

Example:-

a) $\frac{1}{3} + \frac{1}{3} = \frac{1+1}{3}$ $= \frac{2}{3}$

b) $\frac{3}{8} + \frac{2}{8} = \frac{3+2}{8}$ $= \frac{5}{8}$

c) $\frac{2}{5} + \frac{3}{5} = \frac{2+3}{5}$ $= \frac{5}{5}$ $= 1$

WORD PROBLEMS.

1. Ann ate $\frac{2}{5}$ of a cake and Mercy ate $\frac{1}{5}$ of the same cake.

What fraction of the cake did two girls eat?

Ann Mary

$\frac{2}{5} + \frac{1}{5} = \frac{2+1}{5} = \frac{3}{5}$ of a cake.

Exercise;

Subtraction of fractions

a) $\frac{4}{5} - \frac{1}{5} = \frac{4-1}{5}$ $= \frac{3}{5}$

b) $\frac{9}{8} - \frac{5}{8} = \frac{9-5}{8}$ $= \frac{4}{8}$

WORD PROBLEMS.

David had $\frac{7}{9}$ of a cake, he ate $\frac{5}{9}$ of it. What fraction of the cake remained?

He had – ate = remained.

$\frac{7}{9} - \frac{5}{9} = \frac{7-5}{9} = \frac{2}{9}$.

Exercise;

Subtraction of fractions from one whole (Pr. Sch. MTC. Bk.3 pg. 104)

a) $1 - ¾ = \frac{4}{4} - \frac{3}{4} = \frac{4-3}{4} = \frac{1}{4}$

b) $1 - ½ = \frac{2}{2} - \frac{1}{2} = \frac{2-1}{2} = \frac{1}{2}$

Exercise;

WORD PROBLEMS.

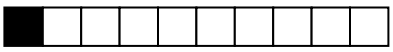
Mary had a mangoe, she ate ¾ of it. What fraction was left?

$1 - \frac{3}{4} = \frac{4}{4} - \frac{3}{4} = \frac{4-3}{4} = \frac{1}{4}$

She remained with ¼

Exercise;

DECIMAL FRACTIONS

0 

$\frac{1}{10} = 0.1$

Exercise;

Addition of decimal fractions .

Example; 4 + 0 .5 = 0 .4

$$\begin{array}{r} +\ 0.5 \\ \hline 0.9 \text{ Ans} \end{array}$$

Word problems in addition

Deco ate 0. 2 of a cake in the morning and 0. 7 of it in the evening.
What decimal fraction did Deco eat altogether?

Morning 0 .2
Evening + 0 .7
Total 0 .9

∴ Deco ate 0. 9 altogether

Exercise;

Subtraction of decimal fractions with borrowing

$$\begin{array}{rl} 5.4 - 1.8 = & 5.4 \\ & -\ 1.8 \\ \hline & 4.6 \text{ Ans.} \end{array}$$

Word problems on subtraction

Ann bought 2 .8 meters of cloth. She used 1. 5 meters for a skirt.
How many meters of cloth did she have un used?
Ann bought 2. 8 m
She used - 1 .5 m
Left 1 .3 m Ans.

Exercise;

ALGEBRA

Collecting like terms.

Adding like terms .

Example 1:

a) 2 cats + 2 goats = 2 cats + 2 goats b) 4 stones + 3 stones = 7 stones.

Example 2

a) a + a + a = 3a b) e + r + r + e + r = e + e + r + r + r
= 2e + 3r

Exercise;

SUBTRACTING LIKE-TERMS.

EXAMPLES.

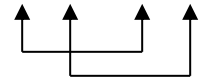
1. 4books – 3books =1book.
2. 6a – 3 a=3a
3. X-y =x-y

Exercise;

More about like terms

Example;

1. 2x +3y –x +2y



2x-x +3y +2y
x + 5y

Exercise;

EQUATIONS

Both sides must balance / equal

Finding the unknown by subtraction.

1. ☐ +4 =8

$\square$ + 4-4=8-4
$\square$ =4

2. h + 2 =6
h +2-2 =6-2
h =4

Word problems.

Example

1. Kato had hens in his farm. He was given 10 more hens. He now has 15 hens. How many hens had Kato at first?
Let the number of hens he had at first be h
h + 10 = 15
h + 10 – 10 = 15 – 10
h = 5
∴ Kato had 5 hens at first.

Finding the unknown by addition.

1. $\square$ –4 =9
$\square$ -4+4=9+4
$\square$ =13

2. W –3 =6
W-3+3 =6+3
W =9

Word problems.

1. Father had books in his bag. He gave me 5 books and he remained with 7 books. How many books
did he have at first?
Let the number of books be b
b – 5 = 7 (an equation)
b – 5 + 5 = 7 + 5
b = 12
∴ My father had 12 books at first.

Finding the unknown by dividing.

1. $\square$ X 5 =10
$\square$ =10÷5
$\square$ =2

2. P X2 =8
P =8÷2
P =4

Word problems.

1. When 9 multiply a number the result is 63. What is the number?
y x 9 = 63
y x 9 ÷ 9 = 63 ÷9
Y = 7
∴ **The number is 7**.

Finding the unknown by multiplication.

1. □÷2 =4
□ =4X2
□ =8

2. g÷3 =6
g =6X3
g =18

Word problems.

2. Adyebo had apples in the basket. He divided them equally between his 2 children. Each child got 4 apples. How many apples had Adyebo at first?
Let the number of apples be k.
W ÷ 2 = 4
W ÷ 2 x 2 = 4 x 2
W = 8
∴ **Adyebo had 8 apples at first**.

GEOMETRY

SHAPES

PLANE SHAPES

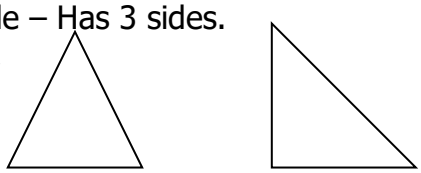
Plane shapes are:-
Squares, rectangles, triangles, kite, circles, oval, semi-circle, parallelogram
Trapezium, Rhombus and other polygons with more than 4 sides.

POLYGONS

A polygon is any figure that is closed and has sides.

Names of polygons

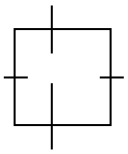
1. A triangle – Has 3 sides.
   Examples;



2 **A QUADRILATERAL.**

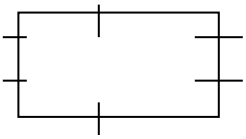
The 4-sided polygon is called a quadrilateral.
Types of quadrilaterals

a) Square



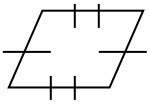
- All the sides are equal.
- All the angles are equal.
- Opposite sides are parallel.

b) Rectangle



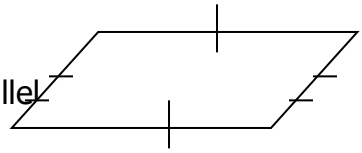
- Opposite sides are equal and parallel.
- Opposite angles are equal.

c) Rhombus



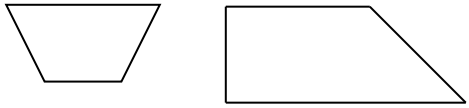
- All sides are equal.
- Opposite sides are parallel.
- Opposite angles are equal.

d) Parallelogram



- Opposite sides are equal and parallel.

e) **Trapezium**



f) A kite



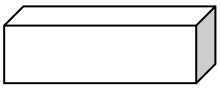
SOLID SHAPES

1. A cube
   Have all sides equal.



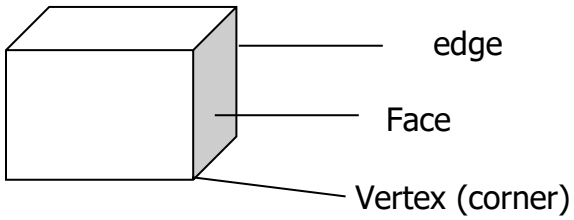
2. A cuboid
   Has a rectangular face.





Naming parts of solid figures.

A CUBOID / A CUBE

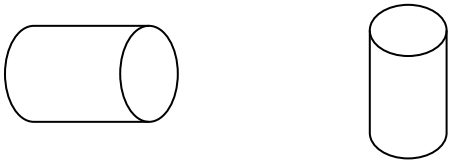


- Have 6 faces.
- Have 8 vertices.
- Have 12 edges.

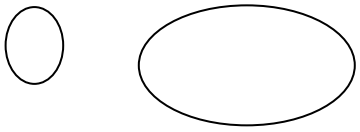
3. A cone



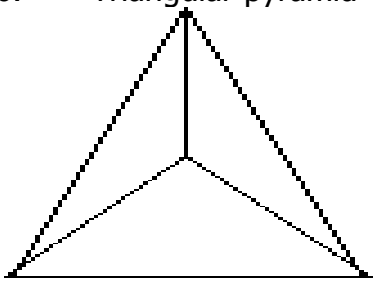
4. Cylinder



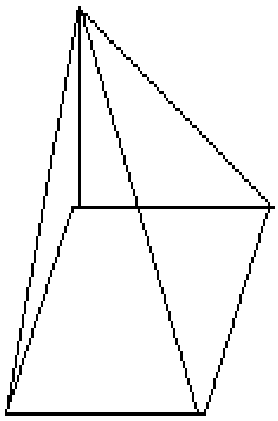
5. Oval



6. Triangular pyramid



8. Rectangular pyramid



TERM III

GRAPHS AND INTERPRETATION OF INFORMATION

Types of graphs.

1. Column graphs and bar graphs.
2. Picture / pictographs.

Picture / pictographs.

Example

1. If * shows 2 stars. How many stars will * * * * * show?

* = 2 stars

***** = 5 x 2 stars

= 10 stars.

Exercise;

1. If * shows 4 stars. How many picture stars will show 12 stars?

4 stars = *

12 stars = 12 ÷ 4 picture stars

= 3 picture stars.

Exercise;

USING A PICTURE GRAPH.

The table below shows the number of flowers picked by six girls. Study it and answer the questions that follow;

NAME	NUMBER OF FLOWERS.
JANE	

JULIET	
JALIA	
JINELLE	
JACKLYNE	
JASPA	

QUESTIONS.

1. Who picked the highest number of flowers?
2. Which two pupils picked the same number of flowers?
3. How many more flowers did Jane pick than Jalia?
4. If each flower is sold at sh.300. how much money will Juliet get after selling all her flowers.
5. Calculate the total number of flowers collected by all the girls.

REPRESENTING THE GIVEN INFORMATION ON A PICTO-GRAPH.

The list below shows the number of boxes of chalk given to different classes at Kabojja Junior School. Study it and answer the questions that follow.

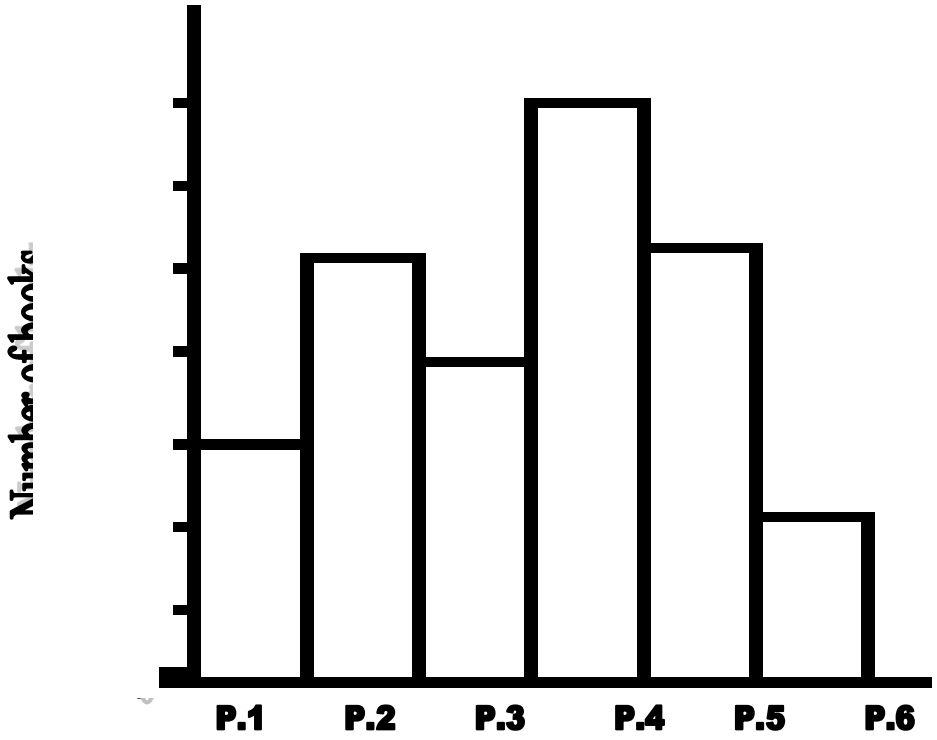
CLASS	NUMBER OF BOXES.
P.1	5 boxes.
P.2	2boxes
P.3	8boxes
P.4	4boxes
P.5	2boxes.

Questions.

1. Draw a picto-graph to represent the above information.
2. Which class got the highest number of boxes?
3. Which two classes got the same number of boxes?
4. Calculate the total number of boxes that were given to all the classes.

BAR GRAPHS

Study the graph below and the questions that follow;



1. How many more books did P.4 get than P.3?
2. How many books did P.1 and P.2 get altogether?
3. Which classes got the same number of books?
4. How many more books did P.5 get than P.6?
6. Calculate the total number of books that were given to all the classes.

MEASUREMENT (MEASURES)

LENGTH

1. Length is the distance between two points.

2. The standard Unit used to measure length is Metre.
3. Other units include; Kilometre (Km), Hectometre (Hm), Decametre(Dm), metre(m), decimeter(dm), centimeter(cm), millimeter(mm)

Km	*Hm*	*Dm*	*m*	*dm*	*cm*	*mm*
1	0	0	0	0	0	0
	1	0	0	0	0	0
		1	0	0	0	0
			1	0	0	0
				1	0	0
					1	0

1Km =1000m
1M =100cm

Measuring the length of given objects and writing them in meters and centimeters.
100 cm = 1 metre

1. 123 cm = _1 m 23_ cm
2. 546cm = __ m __ cm
3. 754 cm = __ m __ cm
4. 265 cm = __ m __ cm

Converting metres (m) to centimeters (cm)

Example:

1. 4 m
   1 m = 100 cm
   4 m = 4 X 100 cm
   = 400 cm

2. 13 m
   1 m = 100 cm
   13 m = 13 x 100 cm
   = 1300 cm

EXERCISE;

Change the following m to cm

1, 10m 2] 5m 3] 14m] 6m 5] 33m

Converting centimetres (cm) to metres (m)

Example:

1. 300 cm
   100 cm = 1 m
   300 cm = (300 ÷ 100) m
   = 3 m

2. 1000 cm
   100 cm = 1 m
   1000 cm = (1000 ÷ 100)
   = 10 m

Exercise; Change the following cm to m

1 400cm 2] 200cm 3] 5000cm 4] 7000cm 5] 800cm

Addition of units of length

Example:

1. M cm
2. M cm
3. KM M

	5	2			2	40		3	350
+	1	7		+	3	50		+5	420
	6	9			5	90		8	770

EXERCISE12C PG 147

Word problems on addition of units of length

1. Musa is 2 M 15 cm of a sugar cane. Ali ate 3 M 20 cm of a sugar cane. Find the length of sugar cane eaten by Musa and Ali.

	M	cm
Musa ate	2	15
Ali ate	+3	20
Altogether	5	35

EXERCISE12d PG 148

Subtraction of units of length

Example:

1.	M	cm	2.	Km	M
	8	70		9	650
-	2	40	-	6	550
	6	30		3	100

EXERCISE12E PG 149

Word problems on subtraction of units of length

1. A trader had 19 M 50 cm of cloth. He sold 4 M 10 cm of it. What length of cloth was left?

	M	cm
A trader had	19	50
Sold	- 4	10
Left	15	40

EXERCISE12e PG 150

Multiplication of units of length

Example:

1.	M	Cm		Km	m
	3	2		2	120
	x	2		x	4
	6	4		8	480

Word Problems on Multiplication of length units.

Example

1. Kato's string 3 M long. Find the length incm.

a) 1 M = 100 cm
3 M = 3 X 100
= 300 cm

DIVISION OF LENGTH UNITS.

1. Mrs. Kato has 12 M of cloth to be shared among her children. What length will each child get?

12 M ÷ 4
= 3 M
∴ Each child will get 3 M.

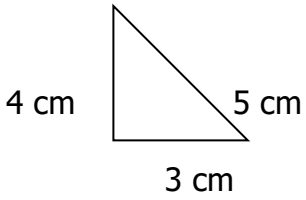
POLYGONS

A polygon is a simple closed sided figure

PERIMETER OF POLYGONS.

Perimeter is the total distance around a given shape / figure or object.

1.

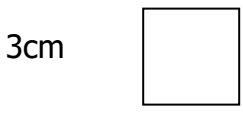


Perimeter = S+S+S
= 5cm + 4cm + 3 cm
2. = 12 cm



Perimeter = L + W + L +W
= 6 m+ 5m + 6m + 5m
= 22 m

3.

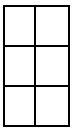


Perimeter=S+S+S+S
=3cm+3cm+3cm+3cm
=12 cm

AREA OF POLYGONS

Finding area by counting squares

1. How many square tiles can be laid on a floor of a given room?



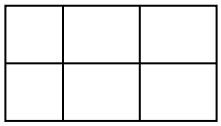
6 Tiles.

Exercise 13a Pg 152

Finding area by multiplication

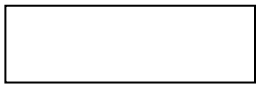
We find area of these figures by multiplying the number of squares across (length) by the squares down wards (width)

Formula =(length x width) square units.

1. 

down

a cross

2. 

2cm

6cm

a cross x down

3 squares x 2 squares

(3 x 2) square units

= 6 square units

A= L x w

= 6 x 2 cm^2

= 12 cm^2

Exercise 13d and 13e Pp 155-156

WORD PROBLEMS

1. Length is 5 cm and width is 4 cm

   Area = length x width square cm

   = 5 x 4 cm^2

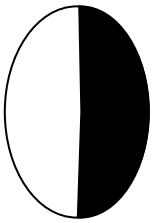
   = 20 cm^2

Exercise 13f Pg 157-158

TIME

1. A clock face has two major hands. The hour hand and minute hand. A short hand counts Hours and a long hand counts minutes.
2. 60 minutes make 1 hour.
3. A half an hour is equal to 30 minutes.
4. A quarter an hour is equal to 15 minutes.

5. From 1-minute upto 30 minutes we use "past".
6. More than 30 minutes we use "to".
7. When the minute hand points to 12 we use or read o'clock.
8. When the minute hand points to 3 we use or read a quarter past.
9. When the minute hand points to 6 we use or read a half past.
10. When the minute hand points to 9 we use or read a quarter to.

TO PAST  TO

a) Shaded part we use minutes 'past'.
b) Un shaded part we use minutes 'to'.

Telling time using o' clock and a half past.

1. 

It is 3 o'clock.

2. 

It is a half past 12 o'clock.
OR 30 min past 12 o'clock.

Exercise 11b pp127-130

Telling time using a quarter past.

Example 1



It is a quarter past 5 o'clock.

OR 15 min past 5 o'clock

Exercise 11e p 131

Telling time using "a quarter to "

Example



It is a quarter to 2 o'clock.
OR it is 15 min to 2 o'clock.
Exercise 11g p132

CONVERSIONS.

Changing hours to minutes.

1. Change 9 hours to minutes.
   1 hour = 60 minutes
   9 hours = 9 x 60 minutes
   = 540 minutes.

Changing minutes to hours.

1. 60 minutes = 1 hr
   420 minutes = 420 ÷ 60 hrs.
   = 7 hrs.

Addition and subtraction of time units.

1.

Hrs	Min
3	10
+ 6	40
9	50 Ans.

2.

Hrs	Min
4	45
- 2	30
2	15

Word problems involving addition and subtraction of time units.

CALENDER
January 2001

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Questions.
1. Write the first day of the month.
2. Write the last day of the week.
3. How many Sundays are in the month?
4. How many Fridays are in the month?

Days of the week are Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Sunday.

Questions:

1. What is the first day of the week?
2. What is the third day of the week?
3. What is the last day of the week?

CONVERSIONS

Changing weeks to days.

1. 1 week has 7 days.
   3 weeks have 3 x 7 days.
   = 21 days. .

2. 1 week has 7 days.
   5 weeks have 5 x 7 days.
   = 35 days.

Word problems

Changing days to weeks.

1. 7 days = 1 week
   21 days = 21 ÷ 7 weeks
   = 3 weeks

2. 7 days = 1 week
   42 days = 42 ÷ 7 weeks
   = 6 weeks.

Word problems

Addition and subtraction of weeks and days.

Example

Wks	Days
5	2
+3	4
8	6

2.

wks	days
7	5
- 2	3
5	2

Word problems involving addition and subtraction.

MONTHS OF THE YEAR

January has 31 days.
February has 28 days in ordinary year and 29 days in a leap year.
March has 31 days.
April has 30 days.
May has 31 days.
June has 30 days.

July has 31 days.
August has 31 days.
September has 30 days.
October has 31 days.
November has 30 days
December has 31 days.
4 weeks make a month.
12 months make a year.
52 weeks make a year.
365 days make a year but leap year has 366 days.

Changing years to months.

1. 1 year has 12 months
   3 years have 3 x 12 months
   = 36 months

2. 1 year has 12 months
   5 years have 5 x 12 months
   = 60 months

Changing months to years.

1. 12 months = 1 year
   24 months = 24 ÷ 12 years
   = 2 years.

Addition and subtraction of years and months

Examples

.1

yrs	months.
3	4
+2	5
5	**9**

2.

yrs	months
8	7
-5	4
3	**3**

Word problems

Finding the age.

1. A mother was born in 1978 and got her first child in the year 2001. How old was she when she got a baby?
   She got a baby in 2001
   She was born in – 1978
   She was **23 *years old.***

CAPACITY

Capacity is the measurement of liquids.
Measuring liquids.

1. Comparing containers in litres.
   One 20 litre jerry can = two ten litre jerry canes
2. One 20 litre jerry can = four 5 litre jerry canes
3. 2 tumpeco mugs = 1 litre
4. How many ½ litres make 1 litre?

CONVERSIONS

Kl	*Hl*	*Dl*	*l*	*dl*	*cl*	*ml*
1	0	0	0	0	0	0
	1	0	0	0	0	0
		1	0	0	0	0
			1	0	0	0
				1	0	0
					1	0

1l =1000ml
Converting litres to millitres

1 litre = 1000 ml
3 litres = 3 x 1000 ml
= 3000 ml

Converting millitres to litres
1000ml = 1 litre
4000ml = (4000 ÷ 1000) litre
= 4 litres

Addition and subtraction of capacity units.

1.
150	litres
+ 20	litres
170	litres

2.
L	ml
8	700
-5	400
3	300

Exercise 14c, d, e and f Pp 162-166

MASS

The basic unit used is Kg
Converting Kg to g.

Kg	*Hg*	*Dg*	*g*	*dg*	*cg*	*mg*
1	0	0	0	0	0	0
	1	0	0	0	0	0
		1	0	0	0	0
			1	0	0	0
				1	0	0
					1	0

1Kg =1000g

Example;

6Kg; 1Kg = 1000g

6kg =6x1000

=6000g

Converting g to Kg.

E.g 5000g

1000g =1kg

5000g =(5000÷1000)kg

=5 ÷1

=5Kg.

Addition of mass in Kg and g

Kg	g
6	450
+2	300
8	750

Exercise 15c Pg 171

Word problems on addition of weight.

1. Kato weighs 17 Kg 280 gm. His sister weighs 20 Kg 400 gm. Find their total weight.

	Kg	gm
Kato weighs	17	280
His sister weighs	+ 20	400
Altogether they weigh	37	680

Exercise 15d Pg 172

Subtraction of weight in Kg and g

Kg	g
6	450
- 2	300
4	150

Exercise 15e Pg 173

Word problems on subtraction of weight.

Ann had 5 Kg 750 gm of salt. She gave 3Kg 250 to her mother. How much salt did she remain with?

	Kg	gm
Ann had	5	750
Gave mother	- 3	250
She remained with	2	500

Exercise 15f Pg 174

MONEY

1. Money is used as an exchange.
2. In Uganda we use coins notes.
3. Different currencies used in Uganda are:

a) Coins – 500/-, 200/-, 100/-, 50/-, 5/-, 10cts and 5 cts.

b) Notes - 50000/-, 20000/-, 10000/-, 5000/- , 1000/-.

Finding how many small coins make a bigger shilling coin

How many shs. 100 coins make a five hundred shilling coin?

Shs. 500 ÷ 100 = 5

Five. 100shilling coins make a. 500shilling coin.

Finding how many small shilling notes make a bigger shilling note

How many shs. 1000 notes make. 5000shilling?

Shs. 5000 ÷ 1000 = 5

Five shs. 1000 notes make shs. 5000 note.

ADDITION OF MONEY

Sh
2000
+300
2300

Exercise 16a Pg 177

Word problems on addition of money

I had 500 shillings. My father gave me 200 shillings more. How much money do I have now?

I had shs. 500
Father gave me shs. + 200
Now I have shs. 7oo

Exercise 16c Pg 178

SUBTRACTION OF MONEY

SHS
450
- 200
200

Exercise 16d Pg 179

Word problems on subtraction of money

My sister had shs. 7500. She gave me shs. 1400. How much money remained with her?

My sister had shs. 7500.

She gave me shs.- 1400
She remained with shs.6100

Exercise 16f Pg 180

Multiplication of money

1. One cup costs shs. 500
   3 similar cups cost shs. 500 x 3
   = shs 1500

Exercise 16j Pg 185

Division of money

1. 4 boys shared shs. 2400. How much did each get?
   1 boy got shs. 2400 ÷ 4
   = shs. 600
   ∴ Each boy got shs. 600

Exercise 16k Pg 187

SHOPPING LIST.

1. Mr. Yiga went to a shop and bought;
   2 packets of milk at shs. 800
   A packet of tea leaves at shs. 500
   1 Kg of sugar at shs. 1500
   A pencil at shs 200
   a) How much will he pay for 5 Kg of sugar?
   b) How much will Tom pay for one packet of milk?
   b) How much more money did he pay for tea leaves than a pencil?
   c) How much money did he pay for all the items?
   d) If he went to the shop with shs .5000, find the balance that he remained with after paying for all the items listed above.

Exercise 16i Pg 184

2. SHOPPING LIST

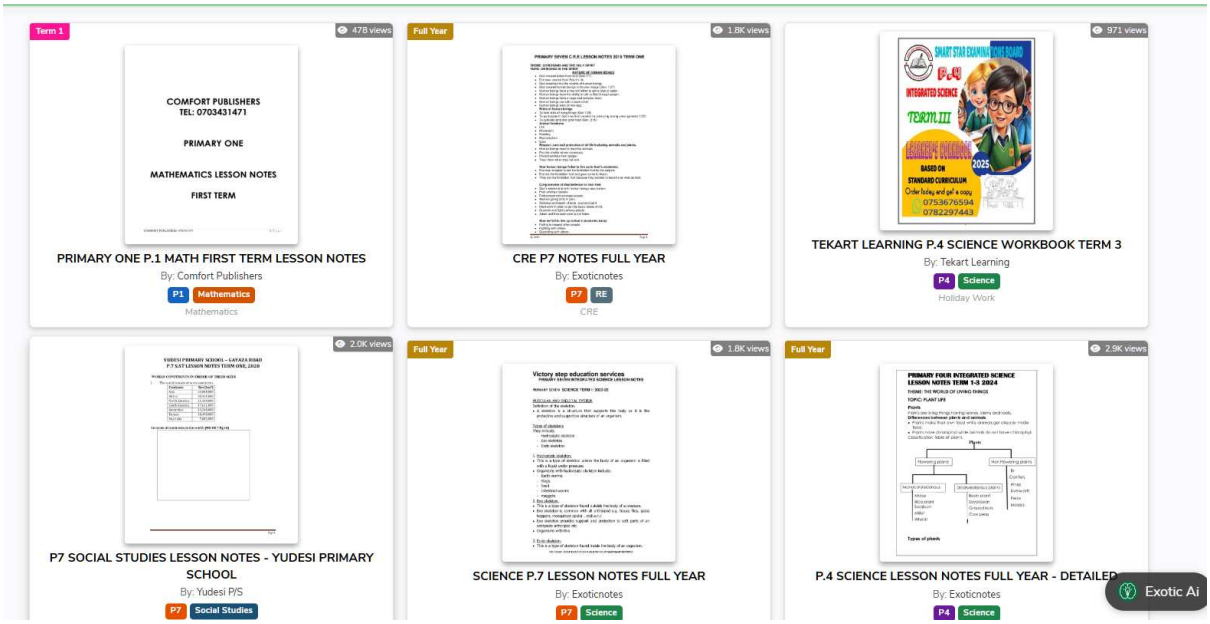
Musa went to the market and bought the following;
2 kg of meat at shs 1000@.
1 kg of rice at shs 1000@.
2kg of posho at shs 500 @.

item	quantity/number of items	Price for each	amount
meat	2 kg	Shs 4000	Shs 8000
rice	1 kg	Shs 3000	Shs 3000
posho	2 kg	Shs1500	Shs3000

Total =Shs14000

Exercise 16h Pp 183

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