SIR APOLLO KAGGWA SCHOOLS SINCE 1996
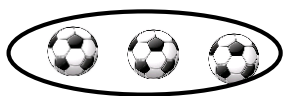## P.3 NUMERACY
HOME STUDY ACTIVITIES

Name: _____

Types of Sets

a) Subsets

b) Empty sets

c) Equal sets

d) Matching/Equivalent sets

e) Non-matching /non-equivalent sets

f) Intersection set (∩)

g) Union set (∪)

Subset

A subset is a small set got from a big set.

Example
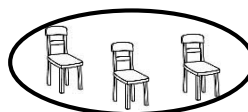
Make small sets from the set below.
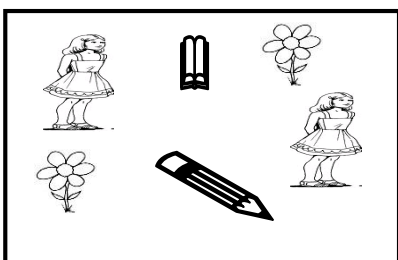

 A set of 3 balls   A set of 1 bag
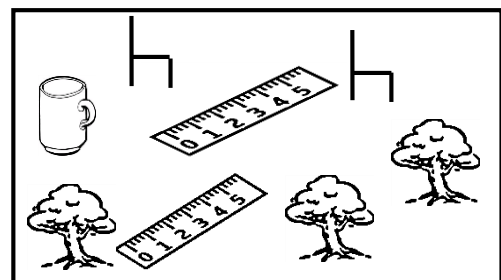
 A set of 1 flower   A set of 3 chairs.

Activity 1
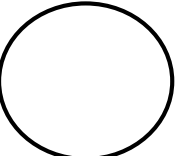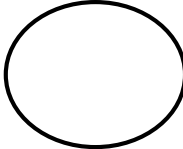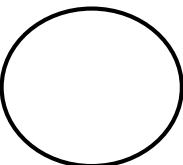
Make and name sub sets from the sets below.

1.   Y

2.   X

1

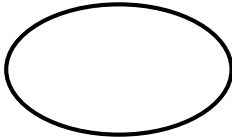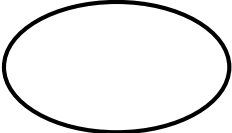a) A set of a pencil

a) ◯ _____

b) ◯ _____

b) ◯ _____

c) ◯ _____

c) ◯ _____

d) ◯ _____
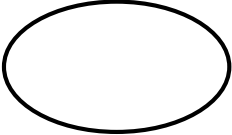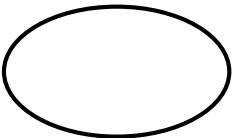
d) ◯ _____

Empty or not empty

An empty set is the set with no members.

Or: A set whose members cannot be found.

Symbols for empty or null set are:

{   } or ∅

Example 1:

Use empty to complete the statement.

1. A set of girls with 4 legs.

Empty set

Not empty

Not empty is the set whose members can be found or a set with members.

Example 1:

Use not empty to complete the statement.

1. A set of cars with 4 tyres.

Not empty set.

Activity 2
Use empty or not empty to complete the statement below.

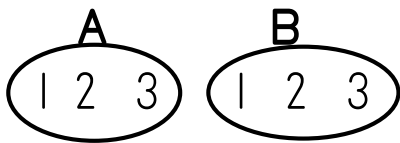a) A set of books made of stones.   _____

b) A set of birds with two eyes.   _____

c) A set of vowel letters.   _____

d) A set of birds without feathers.   _____

e) A set of girl with breasts.   _____

f) A set of trees with eyes.   _____

Equal sets and not equal sets
Equal sets
These are sets with same members and same number of members.
Example 1

A   B
(1 2 3) (1 2 3)

Set A has <u>3</u> members.
Set B has <u>3</u> members.
Since Set A and B have same members, they are <u>equal sets.</u>
Symbol
= equal to
Example 2:
Given that B = {1, 2, 3, 4}
        C = {a, b, c, d}
a) How many members are in Set B?
        <u>Set B has 4 members</u>
b) How many members are in Set C?
        <u>4 members</u>

Note: Set B and Set C are not equal sets since they have different members.

     Symbol

        ≠ not equal

Activity 3

a)   Given set P = {7, 8, 5}

        Q = {5, 7, 8}

     Set P is _____ to set Q.

b)   Set D = {a, e, i, o, u}

     E = {a, b, c}

  Set D is _____ to Set E.

c)   Given two sets;

  Set X = {days of the week}

     Y = {vowel letters}

i)   List members of Set X. _____

ii)   List members of Set Y. _____

iii)   Set X is _____ to set Y.
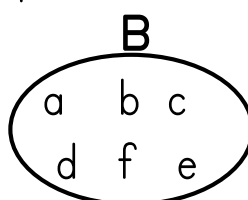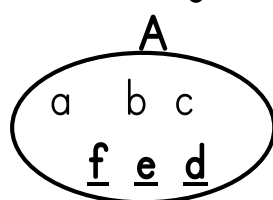
iv)   Name the following set symbols;

     a) ≠ _____   b) = _____

Making paired sets equal

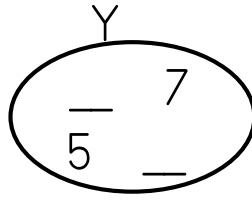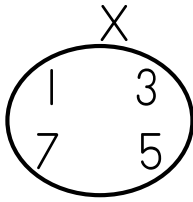**N.B:** This is finding the missing members in a given sets.
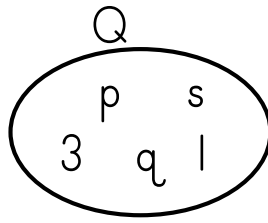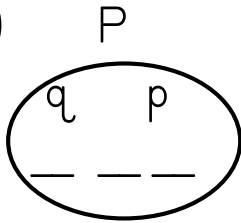
Example I:

Find the missing members in a paired sets.
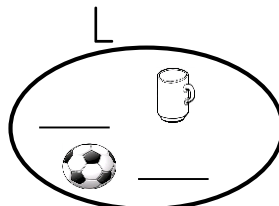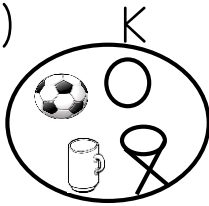
Activity 4

Make the paired sets equal.

I. a)

X: 1 3 7 5

Y: ___ 7 5 ___

b)

P: q p ___ ___ ___

Q: p s 3 q l

c)

K

L

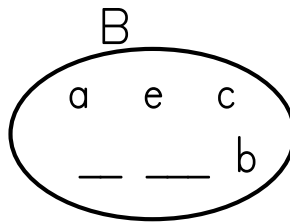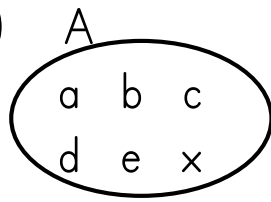d)

A: a b c d e x

B: a e c ___ ___ b

Equivalent/matching sets

Equivalent/matching sets are sets with the same number of members/elements.

N.B: Members may not be the same.

Non-matching/non-equivalent sets.

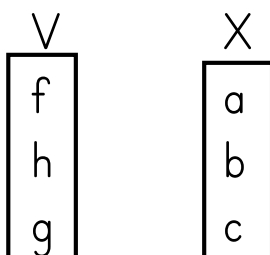Non-equivalent sets are sets with different number of members.

Symbols

⟷ Equivalent set   ⟷̸ Non-equivalent sets

Example

Given that two sets

V: f h g

X: a b c

Set V has 3 members
Set X has 3 members
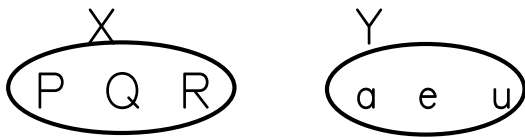Set V and X are <u>equivalent sets.</u>

<u>Activity 5</u>

1. Set P = {a, b, c}   Set Q = {p, q, r, s}

a) How many members has set P? _____

b) How many members has set Q? _____

c) Set P and Q are _____ sets.

2.

X
(P Q R)

Y
(a   e   u)

Set X has _____ members

Set Y has _____ members

Set Y and X are _____ sets.