**FRACTIONS**

Reasons of teaching fractions.

* To solve daily challenges.
* To promote logical reasoning.
* To promote creativity.
* To promote decision making.
* To develop counting skills.

Practical examples where fractions are applied.

* Cooking
* Baking
* Construction
* Mixing drinkings

Vocabulary:

Numerator, denominator, a whole, shaded, unshaded, less than, greater than, equal to, smaller than, bigger than, more than, less than.

Suggested items that can be used to introduce fraction are;

Sticks, apples, tomatoes, strings, bars of soap.

Definition

A fraction is a part of a whole.

Naming parts of a fraction

Examples

Given the fraction 1

2 is a numerator

5 is a denominator

1 is a whole

Naming fractions

|  |  |  |
| --- | --- | --- |
| **WE SEE** | **WE WRITE** | **WE READ** |
|  | 1 | One whole or a whole |
| , , | ½ | One half or a half |
| , , |  | One third or a third |
| , , |  | One quarter or a quarter |
| , |  | One fifth or a fifth |
|  |  | One sixth or a sixth |
|  |  | One eighth or a eighth |
|  |  | One tenth or a tenth |
|  |  | Two thirds |

**Activity**

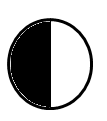
**Name these fractions**

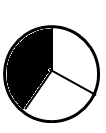
|  |  |  |
| --- | --- | --- |
| **WE SEE** | **WE WRITE** | **WE READ** |
|  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_ |
|  |  | \_\_\_\_\_\_\_\_\_\_\_ |
|  | \_\_\_\_\_\_\_\_\_\_\_\_ | Three sevenths |
|  | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
|  | \_\_\_\_\_\_\_\_\_\_\_ | Two tenths |

**Shading parts of a fractions.**

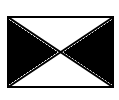
**Examples**

1. Shade the following fractions in the diagrams below.

i) iv)



ii) v)



iii)

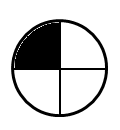
**Activity**

1. Shade the following parts.

a) d) 1 whole

b) c) 1 of 2 parts

**Naming shaded and unshaded fractions**

**Examples**

1. Shaded fraction =

Unshaded fraction =

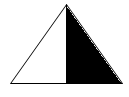
1. Shaded fraction =

Unshaded fraction =

1. Shaded fraction =

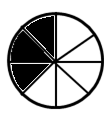
Unshaded fraction =

**Activity**

**Write the shaded and unshaded fractions.**

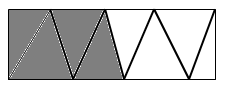
1. Shaded fraction =

Unshaded fraction =



1. Shaded fraction =

Unshaded fraction =

1.  Shaded fraction =

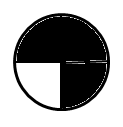
Unshaded fraction =

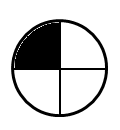
1. Shaded fraction =

Unshaded fraction =

**Comparing fractions with the same denominators using greater than/bigger than, less than/smaller than, equal to**

**Examples**

1. is greater than 2. is less than



**Activity**

1. Compare the following using “bigger than” or “smaller than” to complete correctly.

a) is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Use “more than” or “less than” to complete correctly.
2. is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Use “greater than” or less than” to complete correctly
5. is \_\_\_\_\_\_\_\_\_\_\_\_\_
6. is \_\_\_\_\_\_\_\_\_\_\_\_\_

**Comparing fractions with different denominators using “greater than/bigger than/more than”, less than/smaller than” or equal to**

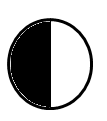
**Examples**

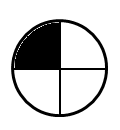
1. Which is bigger?

or

is bigger than

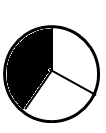
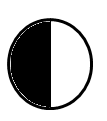
1. Which is smaller?

 or



is smaller than

1. Use the words “greater than” “less than” or equal to” to complete correctly
2. is less than b) is equal to



c) is greater than

**Activity**

1. Which fraction is smaller?
2. or b) or c) or
3. Which fraction is bigger?

a) or b) or c) or

1. Use “greater than”, “less than” or “equal to” to compare correctly.
2. is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. is \_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. 

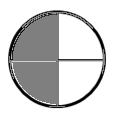
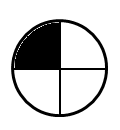
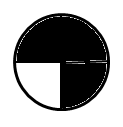
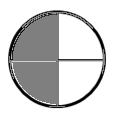
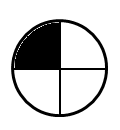
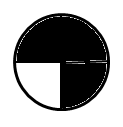
is

**ORODERING FRACTIONS**

**Ascending fractions (from the smallest to the biggest)**

**Examples**

a) , , = , , ,



b)

=

=

**Activity**

**Arrange these fractions from the smallest.**

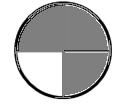
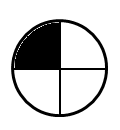
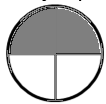
1. , , = 6. , , , =
2. , and = 7. , 1, , , =
3. , , , = 8. , , , =
4. , ,, = 9. , , , , =
5. , , , and = 10.

, ,

**Ordering fractions in a descending order.**

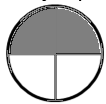
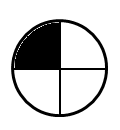
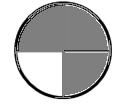
**Starting from the biggest to the smallest)**

**Examples**

1. ****Using illustrations.

=

, , ,

****

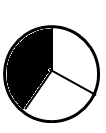
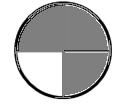
, , ,

1. Without illustrations.

, , and = , , and

**Activity**

**Arrange the following fractions in a descending order.**

****1. , , , and = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.

= \_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. , 1, and = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. , , , and = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5.

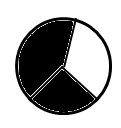
, and =

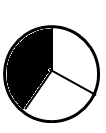
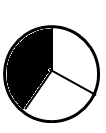
6. , , , = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. , , , , = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. , , , and = \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Addition of fractions using diagrams.**

**Examples**

**Add:**

1. + =

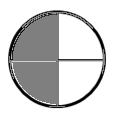
+ =

2.

+

+ =

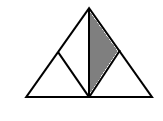
**Activity**

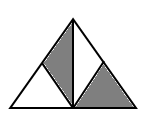
**Add the following using diagrams.**

1.

=

+ = 1



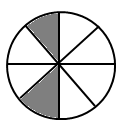
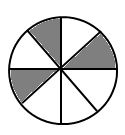


2.

+ =

+ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. + =

 + = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. + =

+ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5.

**+ =**

+ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. + =

+ = \_\_\_\_\_\_\_\_\_\_\_\_\_

7.

**+ =**

+ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Addition of fractions with the same denominators.**

**Examples**

1. + =

=

2. + + =

=

=

**Activity**

**Add the following fractions correctly.**

1. + 2. + + 3. + +

3. + 4. + + 5. +

6. + + 7. + 8. +

**Application of fractions involving addition.**

**Keywords**

* Altogether – total
* Sum – plus
* More

**Examples**

1. A man read of the newspaper on Monday and of it on Tuesday. What fraction did he read altogether?

+ = =

1. Find the sum of and

+ =

=

**Activity**

1. A teacher marked of the books in the morning and in the afternoon. What fractions the books did the teacher mark?
2. 1 walked of the journey and 1 ran of it. What fraction did 1 cover altogether?
3. If of the school garden is cover with maize and with beans. What fraction is covered with both crops?
4. Musa ate of the cake and Namugga ate of the cake. What fraction of the cake did they eat?
5. Jane dug of the garden and Deo dug . What fraction did they dig altogether?
6. Andrew wrote of the book in the morning and in the evening. What fraction of the book did he write.
7. Find the sum of and
8. A child walked of the journey and ran of the journey. What fraction of the journey did the child cover?

**Subtraction of fractions**

**Subtraction of fractions using diagrams.**

**Examples**

1. Subtract: - 3. Subtract: -

- = - =

1. Work out: -

- =

**Activity**

Subtract the following using diagrams.

1. - 2. - 3. - 4. -

5. - 6. -

**Subtraction of fraction with same denominators.**

**Examples**

1. - = 3. - =

= =

2. - = - 4. - =

= =

=

**Subtraction of a fraction from a whole number (1)**

**Example(s)**

1. - = 3. 1 - = -

= =

=

2. 1 - = - 4. - =

= =

=

**Word statements about subtraction of fractions**

**Examples.**

1. Take away

from

- =

=

1. A girl had an orange. She gave of it to her friend. What fraction remained.

= -

=

= remained

1. What fraction was left if Ojuma had of an apple and ate of it

- =

= was left

**Activity**

1. A garden has 8 equal parts. 3 parts out of 8 are planted with maize. What fraction remained?
2. Juma painted of his house on Monday. What fraction of his house is not painted.
3. Fausta ate of an orange. What fraction remained?
4. After travelling of the journey, what fraction is left for me to cover the journey?
5. A shopkeeper sold of a bag of sugar. What fraction of the sugar in the bag was left?
6. A bowl was full of sugar. I used of it. What fraction was left?
7. What is the difference between and
8. Remove from 1
9. Subtract:
10. -
11. -

**Multiplication of a fraction by a fraction and whole numbers.**

**Examples**

1. Multiply: x = x

=

1. Work out: x =

=

1. Find of 6 books.

= x 6 books

= 2 books

OR

of 6 books = ( x ) books

= () books

= () books

= (6 3) books

= 2 books

of 6 books=

= 2 books

1. Shade of the shape below

=

= 6 parts

**Activity**

1. Work out the following.

a) x = b) x = c) x =

1. What is of 10 apples?
2. What is of 12 sweets?
3. Find of 16 books?
4. Shade ½ of the shape below.
5. Shade of the shape below.

**Writing mixed fractions in words and vice versa.**

**Writing mixed fractions in words.**

**Examples**

Write the following mixed fractions in words.

1. 1 = One and two thirds
2. 2 = Two and one quarter
3. 4 = Four and three fifths
4. 1 = One and two sixths

**Writing mixed fractions in figures.**

**Examples**

Write the following in figures.

1. One and three quarters = 1
2. Two and four sevenths = 2
3. Three and one eighth = 3

**Activity**

1. Write the following fractions in words.
2. 1 b) 2 c) 4 d) 1 e) 5
3. Write the following in figures.
4. Three and onehalf
5. Two and three quarters.
6. One and four fifths
7. Four and two sevenths

**Finding fractions in wholes**

**Examples**

1. How many halves are in 2 wholes?

1 whole 1 whole

2halves + 2 halves = 4 halves

1. How many quarters are in 4 wholes?

4quarters + 4 quarters + 4quarters + 4quarters = 16quarters

**Activity**

1. How many halves are in 3 wholes?
2. How many thirds are in 2 wholes?
3. How many quarters make 2 wholes?
4. How many halves make 5 wholes?
5. Jane has 4 wholes. How many theirs can she get from the 4 wholes?

**END OF UNIT TEST**

1. Name the parts of a fraction.
2. \_\_\_\_\_\_\_\_\_\_\_\_ is part of a fraction.
3. Write in words.
4. Name the shaded fraction.

= \_\_\_\_\_\_\_

1. Write two fifths in figures.
2. Use “greater” than, “smaller than, or “equal to” to complete the statements.

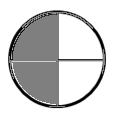
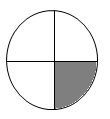
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Arrange the following fractions starting from the smallest.

, , , , ,



Add:

+ =

1. What is the sum of and ?
2. Take away from
3. Circle the smallest.

, and 1

1. Which fraction is bigger?

or

1. What is of 12 apples?
2. Work out x
3. Nakato walked of the journey and ran of the journey. What fraction of the journey did she cover?
4. How many halves are in 2 wholes?

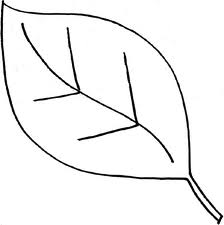
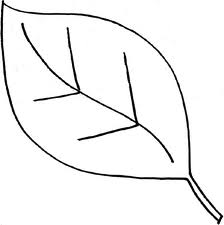
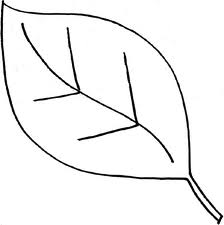
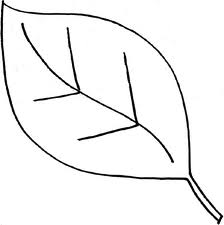
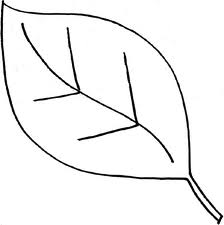
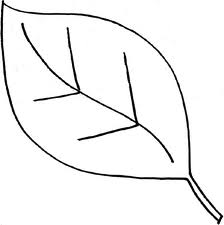
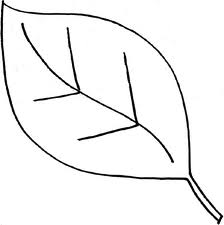
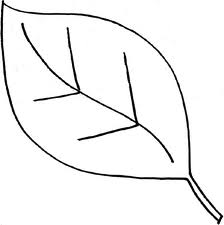
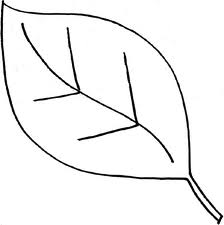


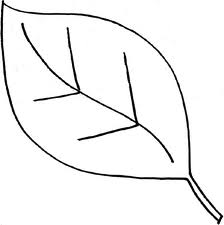
 16.

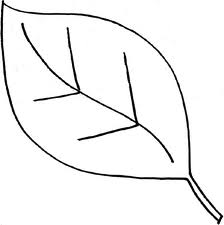
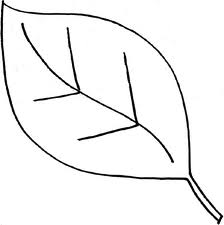




1. Form groups of 4 tomatoes.
2. There are \_\_\_\_\_ groups of \_\_\_\_\_ tomatoes
3. There are \_\_\_\_\_ tomatoes altogether.

17.





1. Form groups of 4 leaves.
2. There are \_\_\_\_\_ groups of \_\_\_\_ leaves.
3. There \_\_\_\_\_ leaves altogether.

**DATA HANDLING**

**Reasons why we teach data handling.**

* Allows children to make sense of information.
* To identify patterns and trends.
* O predict and plan for the future.
* To encourage research.

**Application of data handling in our day to day life.**

* In voting to count voters, votes.
* In carrying out population census.
* In budgeting.
* In libraries when counting m=number of books. Organizing them.
* In stock taking.
* Recording information about weather.
* Recording the progress of learners in a class, stream, school, etc

**Vocabulary:** picto-graphs, bar graphs, data, scale, patterns, interpretation.

**Materials:** charts, glue, newspapers, books, flash card, seeds

**Pictographs without a scale**

**Definition**

A pictograph is a graph drawn using diagrams.

**Examples**

The graph below shows the number of balls each school has.

|  |  |
| --- | --- |
| Kyebando infant p/s | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |
| Hormisdallen p/s | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |
| Niyo light p/s | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |
| Precious gift p/s | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |
| Clevers’ origin p/s | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |

1. Which schools have the least number of balls?

Precious gift p/s and Kyebando infant P/S

1. Which school has the highest number of balls?

Hormisdallen p/s

1. Which schools have the same number of balls?

Kyebando infant P/S and Precious gift P/S

1. How many balls does Kyebando infant p/s, Hormisdallen p/s and Niyo light p/s have altogether? = (2 + 7 + 3) balls.

= 12 balls

1. How many more balls are in Hormisdallen p/s than Clevers’ origin p/s?

7balls – 5balls = 2 more balls

**Activity**

1. The graph below shows the number of books in different pupils’ bags.

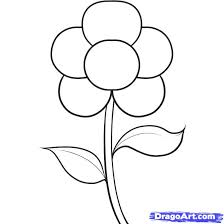
|  |  |
| --- | --- |
| Anthony | bkbkbkbkbkbkbk |
| Winnie | bkbkbkbk |
| Racheal |  |
| Steven | bkbkbkbk |
| Godfrey | bkbk |

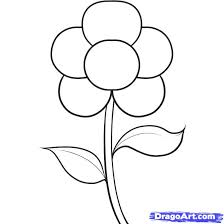
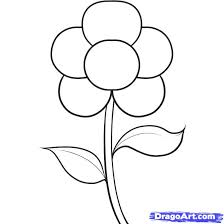
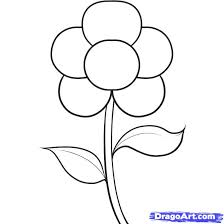
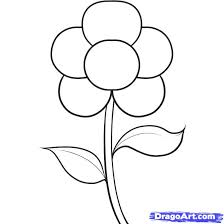
1. Which pupils has the least number of books?
2. Name the pupils with the same number of books?
3. How many more books does Anthony have than Godfrey?
4. How many books do all pupils have?
5. How many books does Winnie, Racheal and Steven have altogether?
6. How many books does the pupil who has the highest number of books have?
7. The graph below shows the number of drums made by different men.

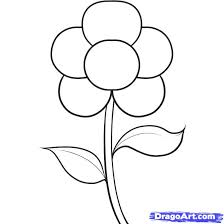
|  |  |
| --- | --- |
| Kasibante | D:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpg |
| Mwesigwa | D:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpg |
| Opolot | D:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpg |
| Mubiru | D:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpg |
| Odeke | D:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpgD:\Downloads\drum 3.jpg |

1. How many drums did Odeke make?
2. Which men made the same number of drums?
3. Which man made 2 drums?
4. How many drums did Opolot, Mubiru and Odeke make altogether?
5. If Kasibante sold each drum at shs. 2000. How much money did he get?
6. How many more drums did Opolot make than Odeke?
7. How many drums were made by the five men altogether?

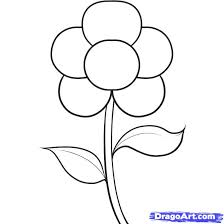
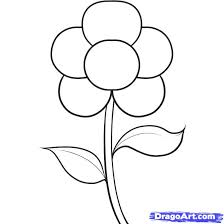
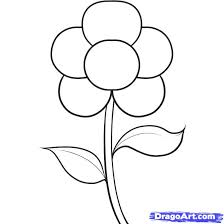
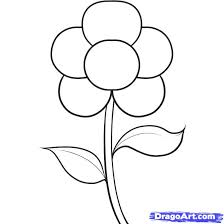
Interprering information on a picto graph with a scale.

Examples

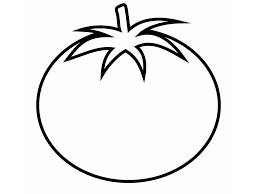
1. Given that represents 4 flowers, how many flowers are represented by ?

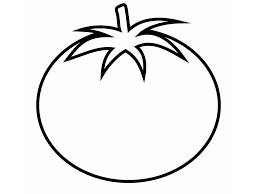
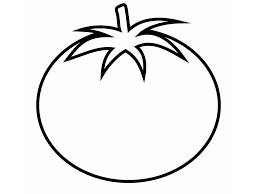
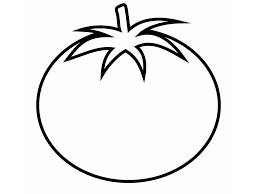


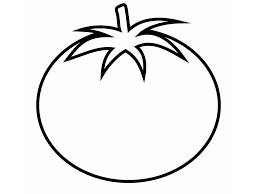
= 4 flowers



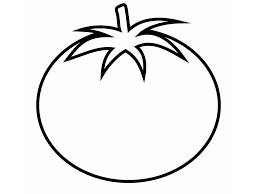
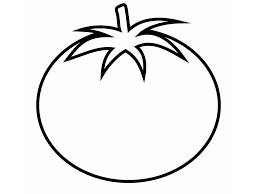
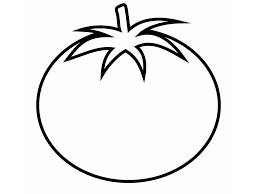
= (4+4+4+4) flowers

 = 16flowers

1. Given that represents 3 tomatoes, how many tomatoes are represented by ?



= 3 tomatoes



= 3tomatoes + 3tomatoes + 3 tomatoes

 = 9tomatoes

1. If represents 2cups, draw pictures to represents 10 cups.

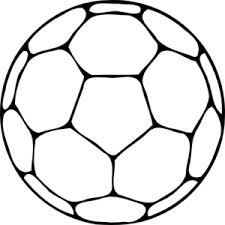


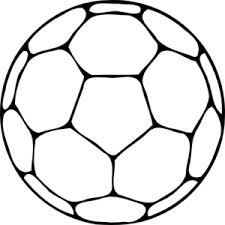
2cups =

10cups =

= 5pictures

 10cups =

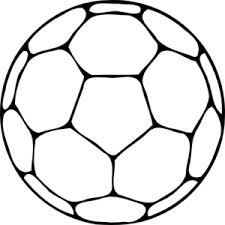
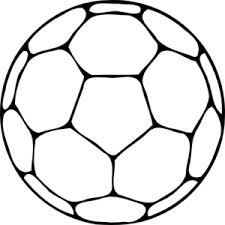
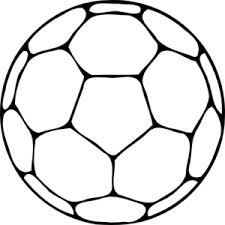


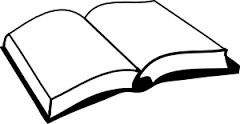
1. If represents 4 balls, draw pictures to represent 12 balls.

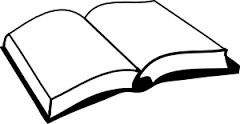
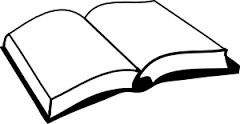
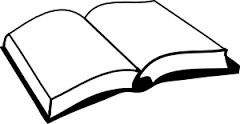
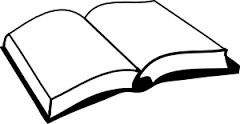
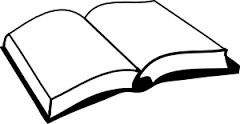
4balls =

12balls =

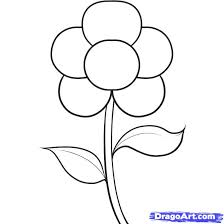
= 3pictures

12balls =

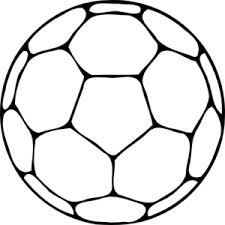
**Activity**

1. Given that represents 3 books, how many books are represented by
2. If represents 5 tins, how many tins are represented

by ?

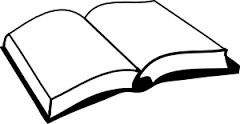


1. Given that represents 4 flowers, draw pictures to represent 16 flowers.



1. If represents 2balls, draw pictures to represent 14 balls.

The pictograph below shows the number of books given to five best pupils in P.3 class. Study it and use it to answer the questions that follow.

 Stands for 3books

|  |  |
| --- | --- |
| Elijah | bkbkbk |
| Isaiah | bk |
| Annet | bkbkbkbkbk |
| Josephine | bkbk |
| kapere | bkbkbkbk |

1. How many books did Annet get?

Annet got 5books = 3books + 3 books + 3 books + 3 books + 3books.

= 15books

1. How many books did Josephine get?

Josephine got 2books = 3books + 3 books

= 6books

1. Who got the least number of books.

Isaiah

1. How many books were given to Isaiah?

Isaiah got 1 books = (1 x 3) books

= 3 books

1. How many books did Josephine and Kapere get altogether?

Josephine 2 books = 3books + 3 books

= 6 books

Kapere 4boos = 3books + 3books + 3books + 3books

= 12 books

Altogether = 6books +12books

= 18books

1. How many more books did Kapere get than Isaiah?

Kapere 4books = (3+3+3+3) books

= 12books

Isaiah 1book = (3x1) books

= 3books

1

0

1 2books

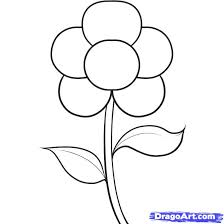
- 3books

0 9more books

**Activity**

The pictograph below shows the number of flowers sold by Mr. Kiviiri in a week. Study it and answer the questions that follow.

|  |  |
| --- | --- |
| Monday | C:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpg |
| Tuesday | C:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpg |
| Wednesday | C:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpg |
| Thursday | C:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpg |
| Friday | C:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpg |
| Saturday | C:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpgC:\Users\Robinah\Pictures\dsc.jpg |



Stand for 2flowers

1. How many flowers were sold on Monday?
2. On which day were the largest number of flowers sold?
3. On which two days was the same number of flowers sold?
4. On which day did Kiviiri sell 14 flowers?
5. How many more flowers were sold on Friday than Tuesday?
6. How many flowers were sold on Wednesday and Saturday altogether?

**Drawing simple picto-graphs**

**Example**

Pupils were told to make balls each of them made the following.

James made 6 balls.

Joan made 3 balls.

David made 5 balls.

Shalon mde 6 balls.

Eric made 2 balls.

**The above information can be shown in a table**

|  |  |
| --- | --- |
| **Names** | **Number of balls made by each pupil** |
| James | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |
| Joan | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |
| David | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |
| Shalon | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |
| Eric | C:\Users\Robinah\Pictures\aball.jpgC:\Users\Robinah\Pictures\aball.jpg |

**Activity**

1. Study the information below and use it to complete the table correctly.

A P.3 teacher orders six girls to collect leaves from the school compound.

Claire collected a leaves.

Martha collected 9 leaves.

Janice collected 1 leaf.

Brendah collected 5 leaves.

Jemimah collected 0 leaves.

Violah collected 4 leaves

**Use the information above to complete the picto-graph below.**

|  |  |
| --- | --- |
| **Names** | **Number of leaves collected by each girl.** |
| Claire | C:\Users\Robinah\Pictures\a leaf.jpgC:\Users\Robinah\Pictures\a leaf.jpgC:\Users\Robinah\Pictures\a leaf.jpgC:\Users\Robinah\Pictures\a leaf.jpgC:\Users\Robinah\Pictures\a leaf.jpgC:\Users\Robinah\Pictures\a leaf.jpgC:\Users\Robinah\Pictures\a leaf.jpgC:\Users\Robinah\Pictures\a leaf.jpgC:\Users\Robinah\Pictures\a leaf.jpg |
| Martha |  |
| Janice |  |
| Brendah |  |
| Jemimah |  |
| Violah |  |

1. Use the information below to complete the picto-graph.

Hormisdallen c/taches made a list of brooms each class needed as shown below.

Teacher Mercy 3 brooms.

Teacher Gloria 5 brooms.

Teacher Opio 4 brooms.

Teacher Julian 2 brooms.

Teacher Robert 3 brooms.

Teacher Godfrey 6 brooms.

**Complete the table correctly.**

|  |  |
| --- | --- |
| Teachers’ names | Number of brooms |
| Mercy | broombroom  \_\_\_\_\_ |
| Gloria |  |
| Opio | broombroom  \_\_\_\_ \_\_\_\_ |
| Julian |  |
| Robert |  |
| Godfrey | broombroombroom  \_\_\_ \_\_\_ \_\_\_ |

1. Draw a pictograph and show the following information on it.

Trees planted by Hormisdallen schools.

Hormisdallen Gayaza 12 trees

Hormisdallen Kamwokya 7 trees.

Hormisdallen Kyebando 10 trees.

Hormisdallen Kiteezi 9 trees.

|  |  |
| --- | --- |
| **Name of school** | **Number of trees planted** |
|  |  |
|  |  |
|  |  |
|  |  |

**Interpreting information on bar graphs.**

**Examples**

1. The graph below shows the number of pupils who played gamed in P.3.

10

9

8

7

6

5

4

3

2

1

0

**Tennis**

**football**

**Volley ball**

**Net ball**

**Number of pupils**

**Games played**

**Types of games.**

**Questions**

1. How many pupils played football?

6pupils

1. How many pupils played volley ball?

4pupils

1. Which game has the least number of players?

Volley ball

1. Which game has the biggest number of player?

Tennis

1. Find the total number of pupils who played games.

Tennis = 1 0 6 + 4 + 8 = 18

Football = 6 1 + 1 = 2

Volley ball = 4

Netball =+8

2 8pupils

18

1. How many pupils played Tennis more than volley ball?

Tennis = 1 10

Volleyball = - 4

6more pupils

1. How many pupils played netball more than volley ball?

Netball = 8

Volleyball = - 4

4more pupils

1. What is the least liked game?

Volley ball

1. Which is the most liked game?

Tennis

**Activity**

1. The graph below shows the number of late comers recorded in P.3 in a week.

20

18

16

14

12

10

8

6

4

2

0

**Mon.**

**Tue.**

**Wed.**

**Thur.**

**Fri.**

**Number of children**

**Days of the week**

**Questions**

1. How many children came late on Monday?
2. How many children came late on Tuesday?
3. Which day had the least number of late comers?
4. Find the number of children who came late on Friday.
5. How many children came late that week?
6. The graph below shows the number of boxes of books carried by P.3 children to the headteacher’s office.

10

9

8

7

6

5

4

3

2

1

0

**Roseline**

**Akon**

**Ssali**

**Joan**

**Juliana**

**Number of boxes of books**

**Questions**

1. Who carried the least number of boxes of books?
2. Who carried the largest number of boxes of books?
3. What was the total number of boxes of books carried by Akon and Joan?
4. What is the difference between the largest and least number of boxes of books carried?

**Showing/representing information on a bar-graph/column graph.**

**Example**

A headteacher aksed Roshin, Acema, Ssali and Kampani to carry boxes of books to his office.

Roshin carried 5boxes.

Acema carried 3books.

Ssali carried 8 boxes.

Kampani carried 2 boxes.

**Represent the above information on a bar graph below.**

10

9

8

7

6

5

4

3

2

1

0

**Roshin**

**Acema**

**Ssali**

**Kampani**

**Number of boxes**

**Names**

**Note:** Separate for us the bars and do not shade like in the previous lessons.

**Questions**

1. Who carried the least number of boxes?

Kapani

1. Who carried the largest number of boxes?

Ssali

1. What is the total number of boxes carried by Ssali and Kampani?

= 8books + 2boxes

= 10 boxes

**Activity**

1. What is the difference between the largest and the least number of boxes carried?
2. If each box had 50 boxes, how many boxes did Acema carry?
3. What is the sum of boxes carried by Acema and Kampani?
4. How many more boxes did Ssali carry than Roshin?
5. How many boxes did Acema and Kampani carry altogether?
6. How many boxes did Ssali carry?

**Interpreting information on tables.**

**Examples**

The table below shows the number of cars recorded by Mike in a week.

|  |  |
| --- | --- |
| **Days of the week** | **No. of cars** |
| Sunday | 5 |
| Monday | 12 |
| Tuesday | 10 |
| Wednesday | 8 |
| Thursday | 9 |
| Friday | 10 |
| Saturday | 7 |

1. On which day did he count the biggest number of cars?

On Monday

1. On which two days Mike count the same number of cars?

On Tuesday and Friday

1. When did Mike count the least number of cars?

On Sunday

1. Find the number of cars he counted the whole week.

Sunday = 3 4 5+2+0+8+9+0+7 = 37

Monday = 1 2 3+1+1+1

Tuesday= 1 0

Wednesday = 8

Thursday = 9

Friday = 1 0

Saturday= + 7

6 1cars

3 1

**Activity**

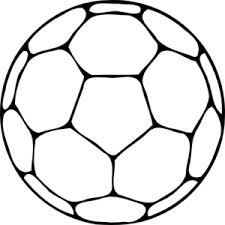
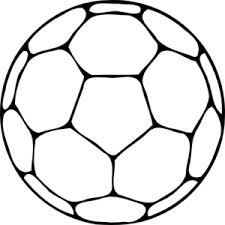
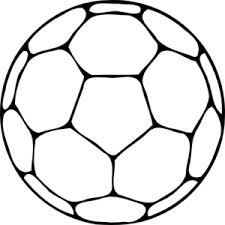
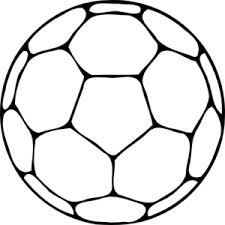
**The table below shows the number of chicken different farms have.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Names of farmer | John | Kamoga | Sarah | Mugaga | Ruth |
| Number of chicken | 12 | 15 | 18 | 30 | 10 |

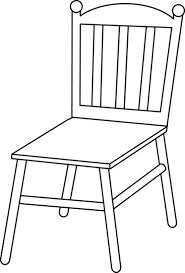
1. Name the farmer with 18 chicken.
2. How many chicken does Kamoga and Ruth have altogether?
3. Which farmer has the least number of chicken?
4. How many more chicken does Mugaga have than Sarah?
5. Write the number of chicken John has in words.
6. How many chicken does Kamoga need to have the same number of chicken as Sarah?

**Data handling (Topical questions)**

1. A goat has 4 legs. How many legs do two goats have?



1. If represents 6 balls’ how many balls do represent?

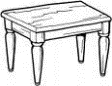
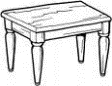


1. (a) If = 1 chair, use the information below to complete the pictograph.

James made 2 chairs, Ivan made 4 chairs, Drrick made 5 chair, Moses made 1 chair.

|  |  |
| --- | --- |
| Names | Number of chairs made |
| James |  |
| Derrick | C:\Users\Robinah\Pictures\chair.jpgC:\Users\Robinah\Pictures\chair.jpgC:\Users\Robinah\Pictures\chair.jpgC:\Users\Robinah\Pictures\chair.jpgC:\Users\Robinah\Pictures\chair.jpg |
| Ivan |  |
| Moses |  |

1. How many chairs were made by the 4 men all together?
2. How many more chairs did Derrick make than Moses?
3. Given that: If one ruler represent 10 rulers. How many rulers can represent 30 rulers?



b) stand for 14 chairs. Hoe many chairs does stand for?

1. **Study the Bar graph below and answer the questions that follow.**

**Rona**

**Abdul**

**Sema**

**Cloe**

**Amina**

**Sarah**

**Apio**

**Okello**

40

35

30

25

20

15

10

5

0

**Number of animals**

**Name of children**

**Questions**

1. How many animals does Abdul keep?
2. Who has the highest number of animals?
3. Who has the least number of animals?
4. How many animals are kept altogether?
5. Who of the children have the same number of animals?
6. How many more animals does Sarah keep than Amina?
7. Find the difference between the highest number of animals and the lowest number of animals.
8. Find the total number of animals kept by Abdul and Apio.

**GEOMETRY**

**REASONS FOR TEACHING GEOMETRY**

* To provide learners with skills to build their logical thinking.
* To enable learners connect classroom objects in real world contexts.
* To develop problem solving skills in learners.
* To enable learners make rightful decisions in deciding which materials to use and which design to make.

**Application of geometry in our to day life.**

* Construction of buildings.
* Computer graphics
* Art
* Interior design
* Plumbing

**Vocabulary:** cube, cuboid, cylinder, cone, kite, rectangle, triangle, trapezium, square, oval, semi-circle, circle

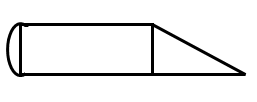
**Drawing and naming shapes**

**Examples**

Name the following shapes

|  |  |
| --- | --- |
|  |  |
| Circle | Square |
|  |  |
| Rectangle | Semi circle |
|  |  |
| Cone | Triangle |
|  |  |
| Kite | Trapezium |
|  |  |
| Cylinder | Oval |
|  |  |
|  |  |

**Activity**

1. Name the shapes that were used to form the figure below.

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

E \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

F \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

G \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**C**

**A**

**B**

**D**

**E**

**F**

**G**

1. Draw the shapes below.
2. Kite b) oval c) cube d) square

e) rectangle f) cuboid

Identifying plane figures on different solid shapes

**Examples**

1. **Name the shaded shapes from the figures below.**

Circle

triangle

rectangle

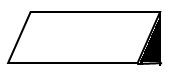
square

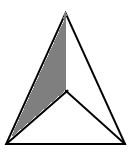
**Activity**

Name the shapes which have been shaded in the figures below.

a) b)

c)

 d)



e)

**Counting shapes**

**Examples**

a) = 3triangle = 4circle

c) = 3squares

**Activity**

1. How many triangles can you see?

= \_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many circle can you count?

= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_

= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Study the figure below and answer the questions that follow.

1. Count the shapes
2. Triangles = \_\_\_\_\_\_
3. Squares = \_\_\_\_\_\_\_
4. Circles = \_\_\_\_\_\_\_
5. Rectangles = \_\_\_\_\_\_
6. Shade the part which is not a triangle in the figure below.
7. How many sides has the shape below?

= \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**More about counting shapes**

**Count the number of rectangles, triangles, circles and squares.**

(i) \_\_\_\_\_\_\_\_squares

(ii) \_\_\_\_\_\_\_ recangles

= \_\_\_\_\_\_ triangles. = \_\_\_squares

= \_\_\_ circles = \_\_\_circles

**Polygons**

**Definition**

A polygon is a closed figure with straight edges.

**Examples of polygons**

A 3 sided polygon is called a triangle.

A 4 sided polygon is called a quadrilateral

A 5 sided polygon is called a pentagon

A 6 sided polygon is called a hexagon

**Activity**

1. Draw and name any 4 quadrilaterals.
2. (ii)

(iii) (iv)

1. Name the shaped below.

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

**Topical questions**

1. Draw the following geometric shapes.
2. Kite b) square c) rectangle d) cylinder
3. Name these shapes.
4. How many shapes can you see?

a) \_\_\_\_\_\_\_\_ rectangles

b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ rectangles

c) \_\_\_\_\_\_\_\_\_\_ triangles

1. (a) What is a polygon?
2. Which type of polygon is your classroom?
3. How many sides has the following polygons?
4. Pentagon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Quadrilateral \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Triangle \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Hexagon \_\_\_\_\_\_\_\_\_\_\_\_\_\_