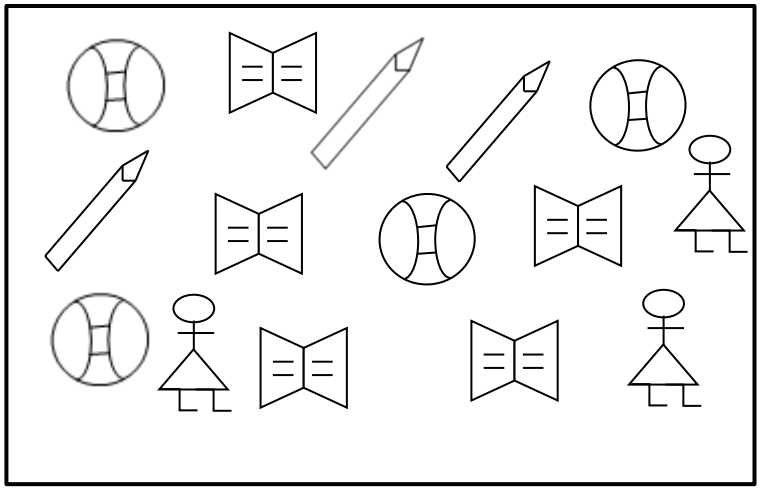
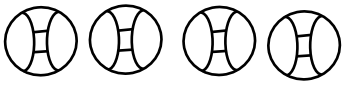
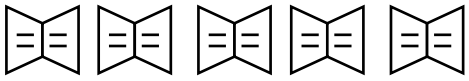
P.1 MATHEMATICS LESSON NOTES

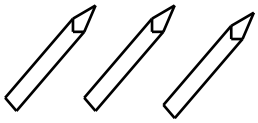
LESSON 1: Sorting real objects

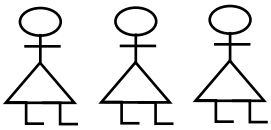


4 balls
3 pencils
3 girls
5 books


4 balls

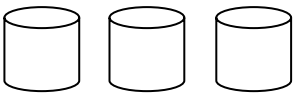

5 books


3 pencils


3 girls

Naming different groups


A group of oranges


A group of tins

A SET

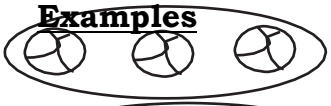
A set is a collection of well defined elements.

A set is a collection of things put together.

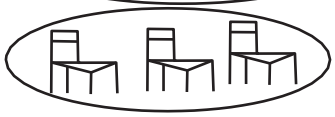
Things found in a set are called members/elements.

Naming sets

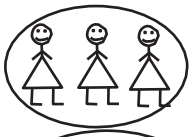
Examples



A set of balls

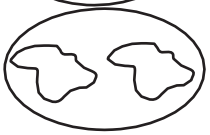


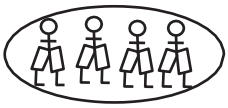
A set of tins

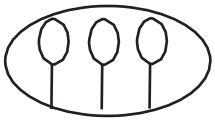


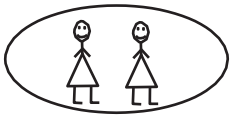
A set of chairs

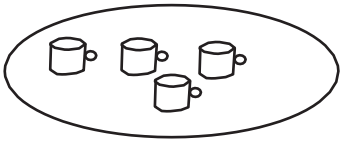
Activity

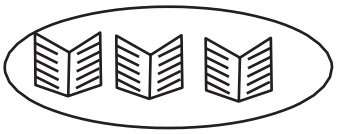






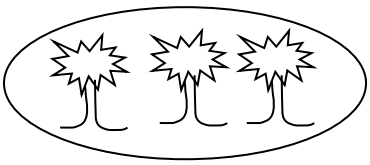




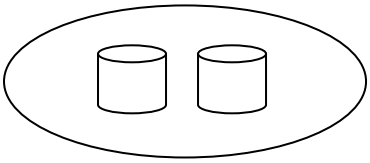


Read and draw sets

A set of 3 trees.



A set of 2 tins.



Activity

Draw these sets

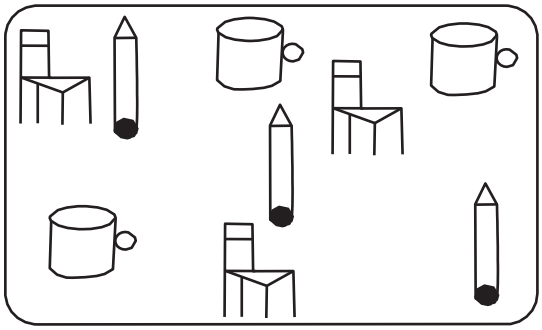
a) A set of 5 balls.

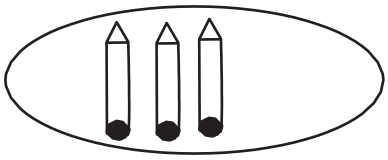
b) A set of 3 pencils.

c) A set of 1 book

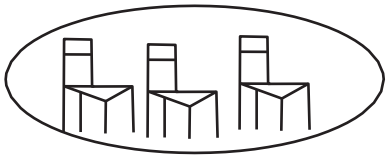
d) A set of tables

Forming and drawing sets

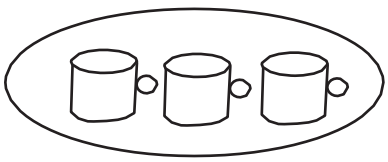




A set of pencils

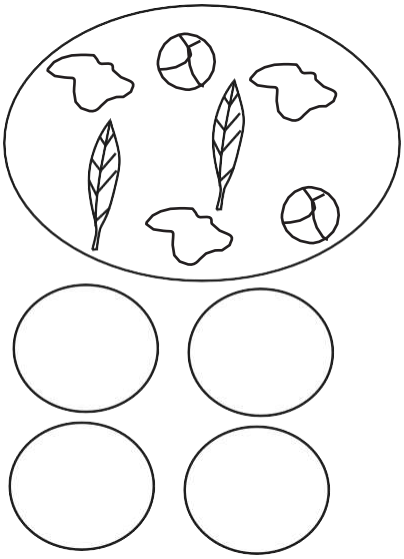


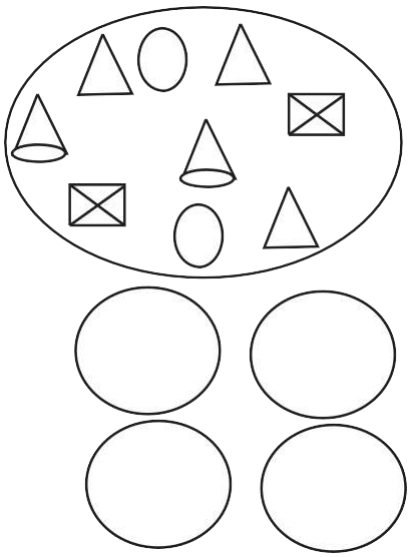
A set of chairs



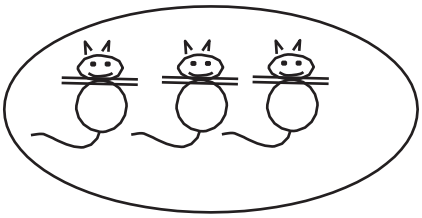
A set of cups

Activity

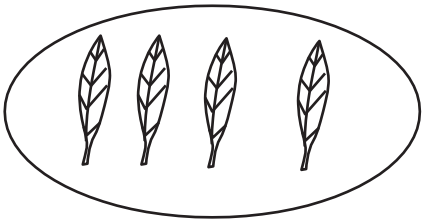




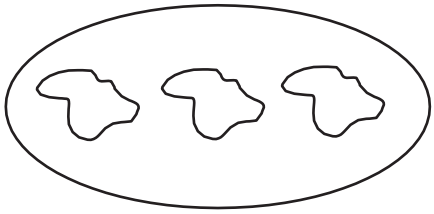
Counting members in a set
Examples



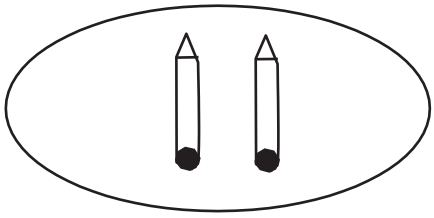
A set of three cats



A set of 4 leaves

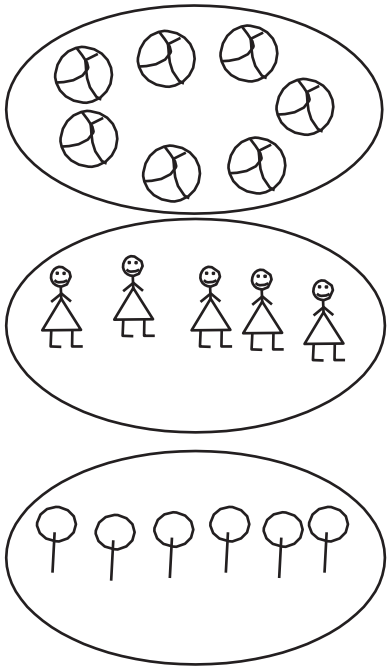


A set of 3 stones



A set of 2 pencils

Activity



Empty sets

An empty set is a set without members

$\emptyset$ *or* { } is a symbol for an empty set

Examples

1) A set of birds driving cars.

   $\emptyset$

2) A set of boys with wings

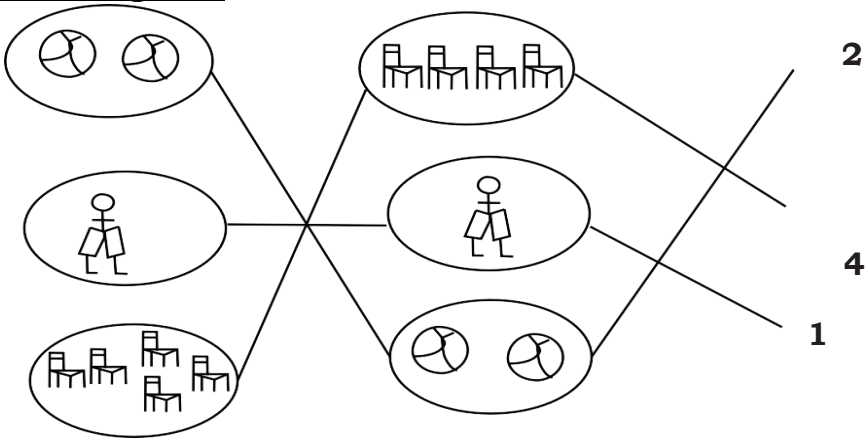
   { }

Activity

a) A set of snakes with two legs

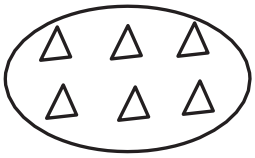
b) A set of men with nine eye

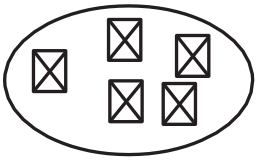
Matching sets



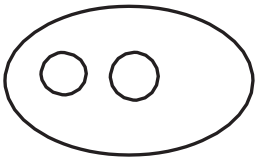
Activity

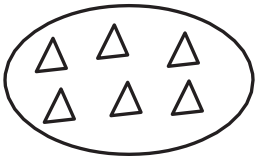
Match the sets



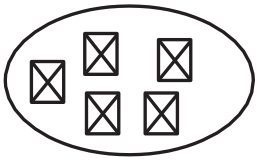


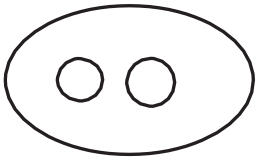
2





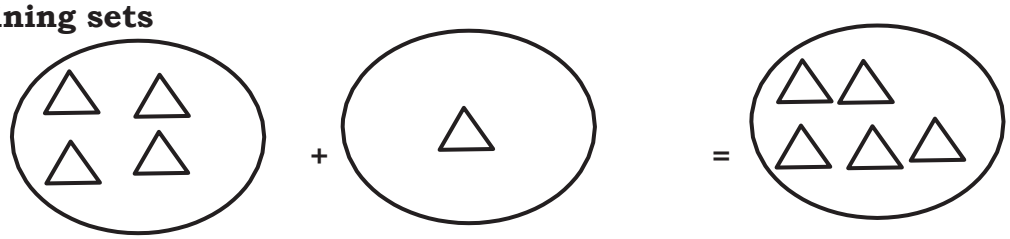
6



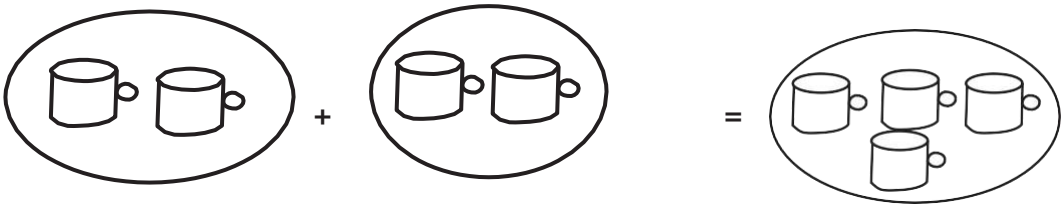


5

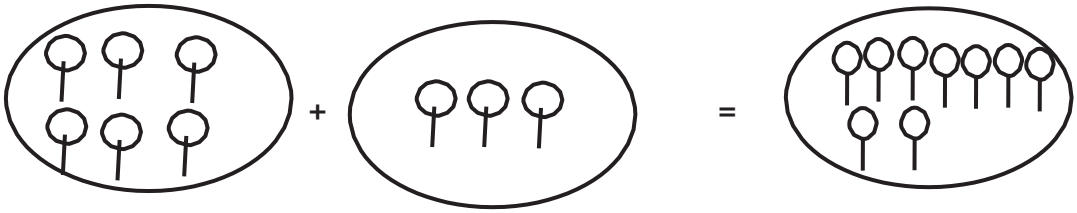
Joining sets



4 + 1 = 5

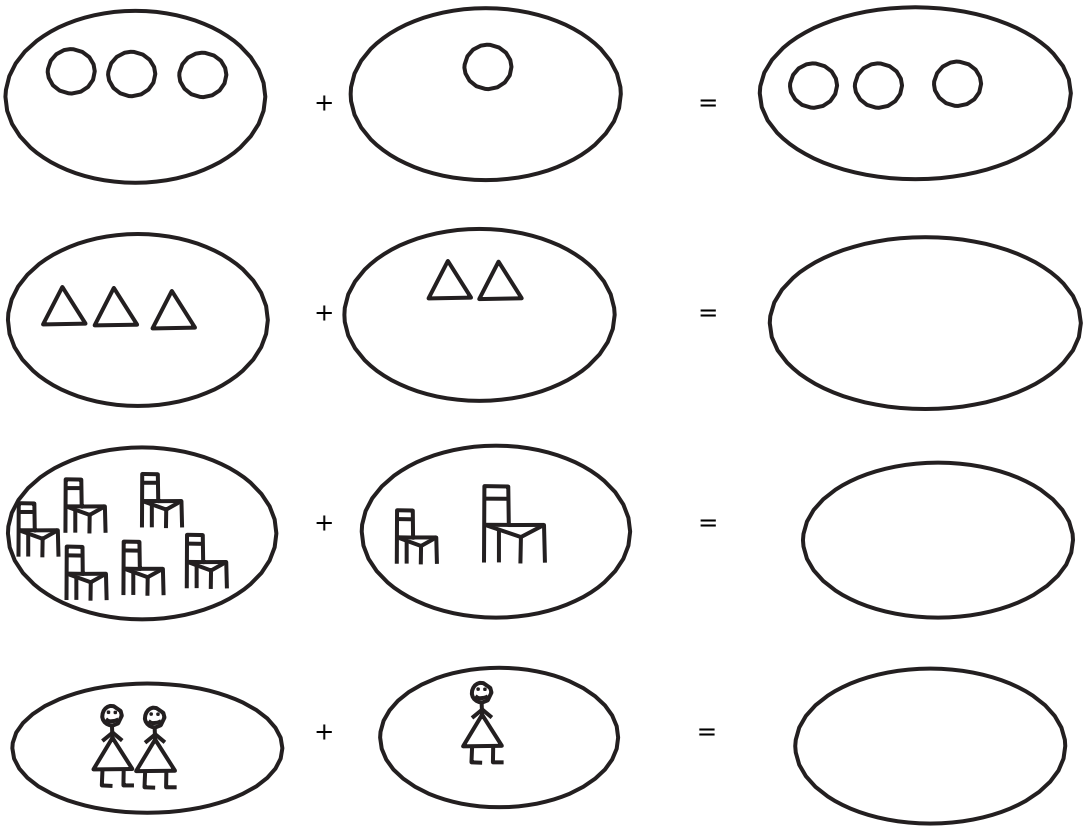


2 + 2 = 4

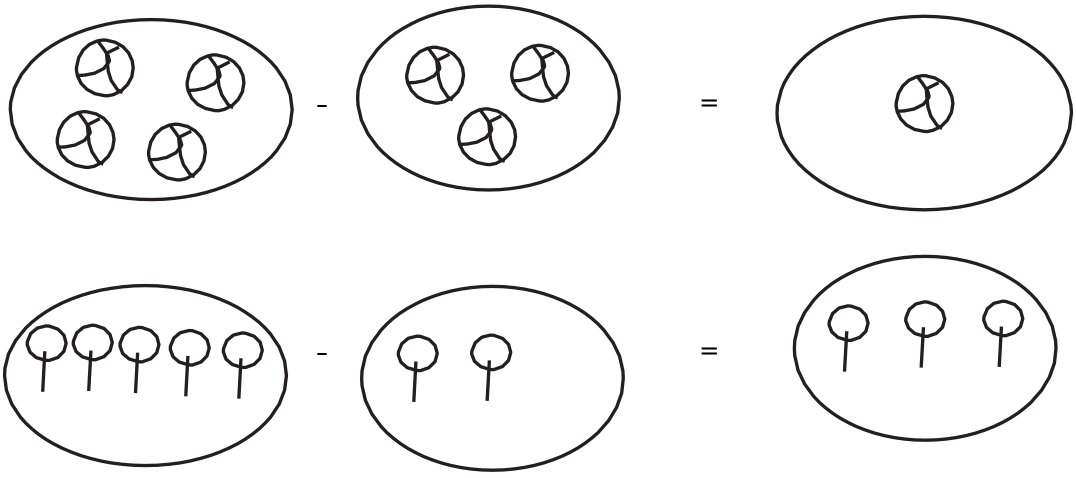


6 + 3 = 9

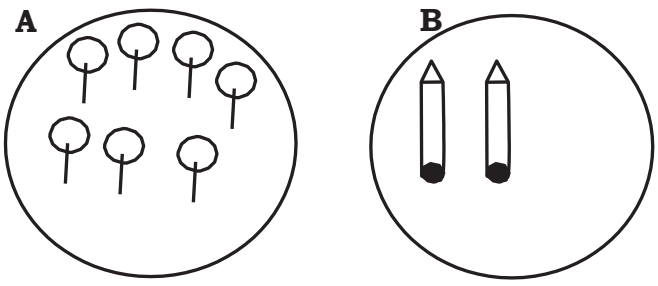
Activity



Disjoining sets



Comparing elements in a set (less or more)



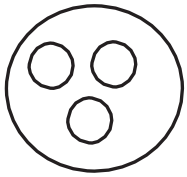
Which set has more members?

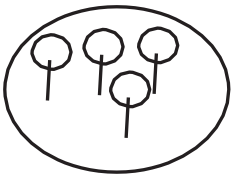
Set A has less members

Set B has more members than set A

Activity

A **B**





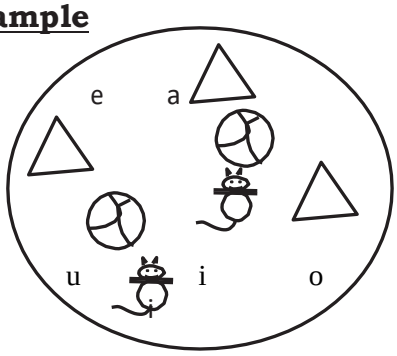
Which set has more members?

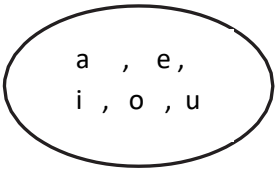
Set A has less members

Set B has more members than set A

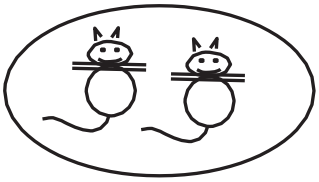
Forming small sets from big set

Example

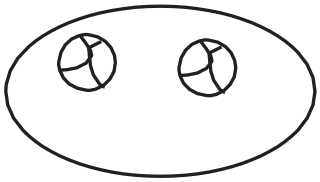




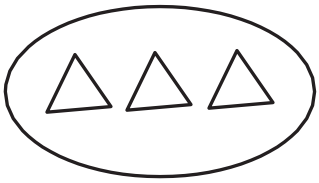
A set of 5 letters



A set of 2 cats

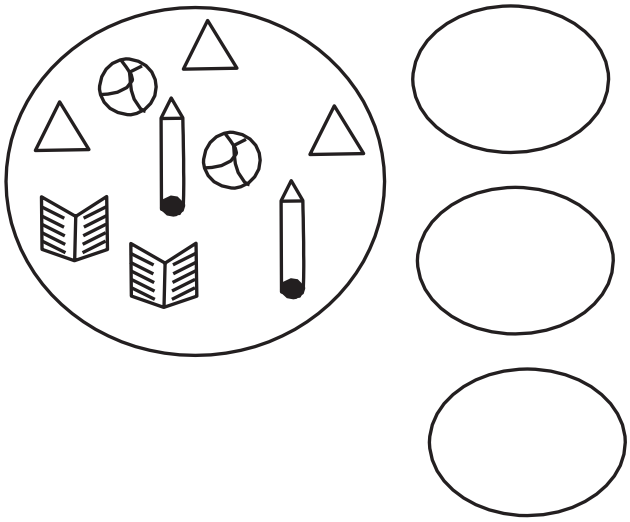


A set of 2 balls



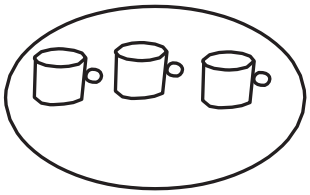
A set of 3 triangles

Activity

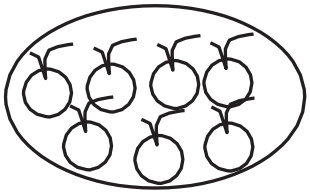


Ordering sets

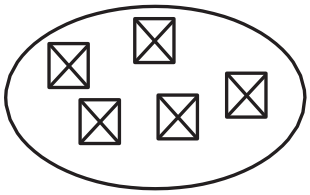
N



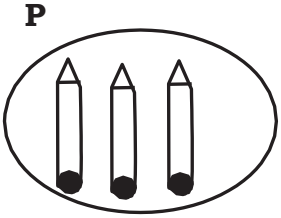
M



R



P



M comes first (1st)

_____Comes second(2nd)

_____Comes third (3rd)

_____Comes fourth(4th)

THEME - NUMERACY

Counting numbers from 0-49 **Whole numbers**

0,1,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,
27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49

Activity

Fill in the missing numbers

0____2____4____6____

4____6____8____10

10,9,8,____6, 5,_3

35, ___ ,____ ,38,____,40

Counting from 50-99/100

50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73
74 75 76 77 78 79 80 81 82 83 84 85 86 87 89 90 91 92 93 94 95 96
97 98 99 100

Activity

Fill in the missing numbers

55,____, ____58,59,

97,98, ____ , ____

81, ____,83,84, ____

____,60 , 62, ____,40

Finding the number before

0 1 5 6 67 34
45 23 78 89 9 10

Activity

Write the number before

_____4	_____12	_____17
_____19	_____20	_____1
_____35	_____10	_____8

Finding the number that comes after

2,3	15,16	8,9
7,8	69,70	
10,11	99,100	

Numbers which come between

0 1 2	30 31 32
3 4 5	15 16 17
7 8 9	14 15 16
10 11 12	

Activity

Fill in the number between

4____6	8____16	7____9
7____9	13___15	10___12
15___17	3____5	0____2

Arranging numbers in ascending order

10, 6, 2, 1	10 6 2 1
1, 2, 6, 10	1 2 6 10
8, 3, 5, 4	8 8 10 9
3, 4, 5, 8	7 8 9 10

Activity

6, 1, 3, 4	7, 9, 6, 4
8, 2, 4, 20	9, 10, 11, 0
0, 3, 1, 4	4, 3, 7, 6, 5

Arranging numbers in ascending order

4, 8, 6, 7	0, 3, 2, 1
8, 7, 6, 4	3, 2, 1, 0

Activity

10, 9, 11, 12	10 9 12 13
15, 16, 17, 18	1 2 3 4 5
8, 10, 6, 4,	3 4 5 6 7
6, 4, 7, 1	

Circling the small number

Examples	**Activity**
② or 3	6 or 9
⑦ or 17	9 or 3
40 or ④	8 or 4
4 or ②	4 or 1
③ or 7	20 or 30
⑦ or 13	14 or 15
⑧ or 81	

Number names/words

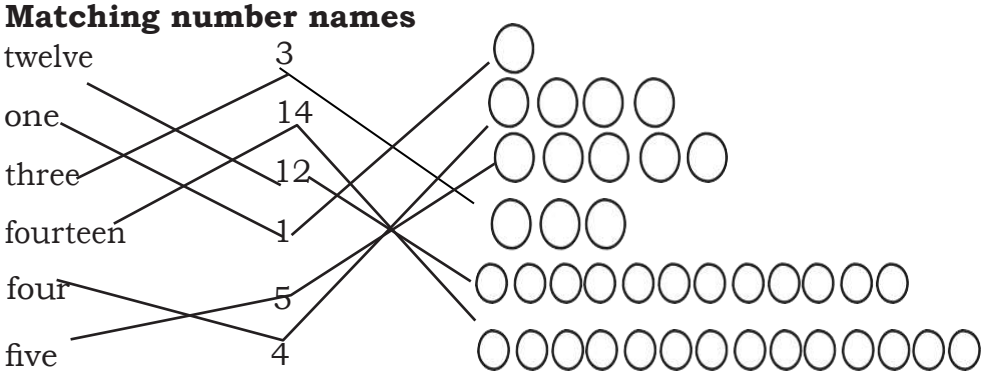
0- zero	8- eight	14- fourteen
1- One	9- nine	15- fifteen
2- two	10- ten	16- sixteen
3- three	11- eleven	17- seventeen
4- four	12- twelve	18- eighteen
5- five	13- thirteen	19- nineteen
6- six		
7- seven		
20-twenty		

Write the following in words

16____20____13_____

0_____11____19_____

Matching number names



Activity

Match correctly

two	19	18	eleven
three	12	14	twenty
thirteen	2	17	eighteen
twelve	3	20	fourteen
nineteen	13	11	seventeen

Number names from 10-100 (counting in tens)

10- ten	60-sixty
20- twenty	70- seventy
30-thirty	80-eigthy
40- forty	90- ninety
50-fity	100-one hundred

Activity

Write in words

40_____ 79_____ 20_____

80_____ 12_____ 13_____

70_____ 100_____ 40_____

88_____ 76_____ 55_____

Number names from 20-30

20 twenty	25- twenty five
21 twenty one	26- twenty six
22 twenty two	27- twenty seven
23 twenty three	28- twenty eight
24 twenty four	29- twenty nine
25 twenty five	30- thirty

Activity

Write in words

21 _____ 28 _____

27_____ 29 _____

24_____ 22 _____

23_____ 25_____

Fill in the missing letters

twetyf ___ ___r twen __yn__n __

Twenty s__v ___n

Number words from 30-39

thirty

thirty one

Thirty two

Thirty three

Thirty four

thirty five

thirty six

thirty seven

thirty eight

thirty nine

Match the following correctly

thirty two	35
thirty eight	30
thirty	32
thirty five	38
thirty nine	39

Number names from 40-49

40 -forty

41 -forty one

42-fortytwo

43-fortythree

44-forty four

45- forty five

46-forty six

47- forty seven

48-forty eight

49-forty nine

Activity

Write the following in words

48 42 43

44 49

46 47

Match

Forty	44
Forty one	40
Forty four	41

Filling in ones

=1 ones

=2 ones

=3 ones

=4 ones

=5 ones

=6 ones

Activity

Fill in correctly

=____ones

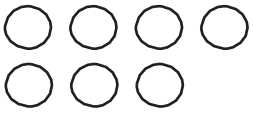
=____ones

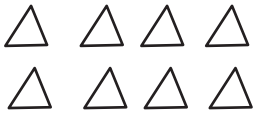
=____ones

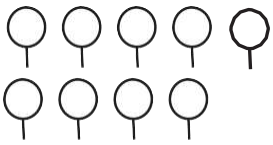
=____ones

Drawing ones

3ones = 

 =7 ones

 =8 ones

 =9 ones

 = _____ones

 = _____ones

 = _____ones

8 ones = 

4 ones = 

2 ones = 

1 ones =

Activity

Draw ones

8ones =

4ones =

9ones =

5 ones =

6 ones =

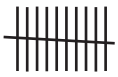
1ones =

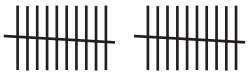
7ones =

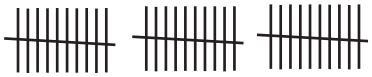
3ones =

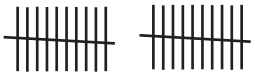
2ones =

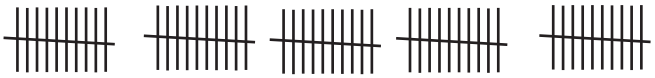
Drawing tens

 =1 tens

 = 2 tens

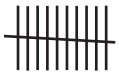
 = 3 tens

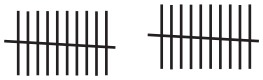
2tens= 

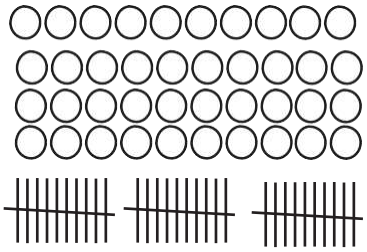
5tens = 

Activity

1.Fill in the missing tens

 = _____tens

 = _____tens



= _____tens

= _____tens

2. **Draw the tens**

2tens=

5tens=

7tens=

4tens=

1tens=

6tens=

Filling in tens and ones

64 = **6** tens **4** ones

7 tens 0 ones = **70**

8 = **0** tens **8** ones

4 tens = **40**

3 ones = **3**

Activity

Fill in the missing tens and ones

5 tens 3 ones = _____

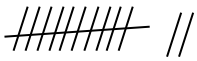
____ tens _____ ones = 45

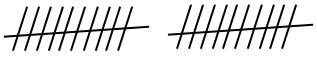
80 = ____ tens ____ ones

5 = ____ tens ____ ones

9 tens = _____

Drawing tens and ones

12 = 

20 = 

04 = 

Activity

Draw bundles

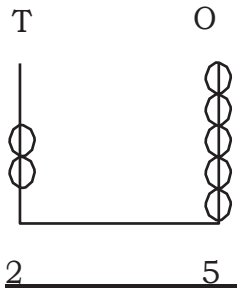
13 =

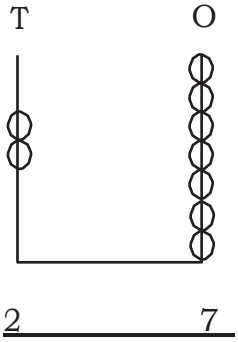
05 =

40 =

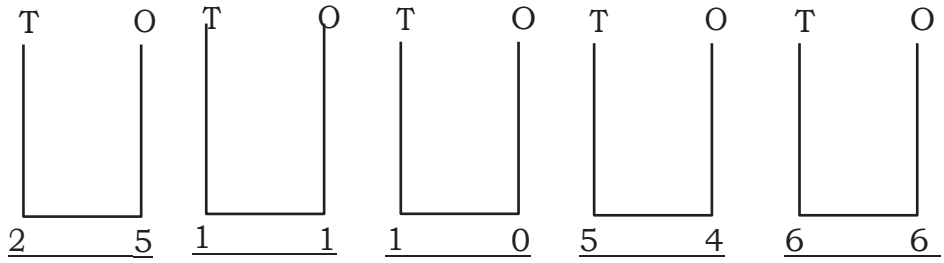
Showing numbers on the abacus

Examples

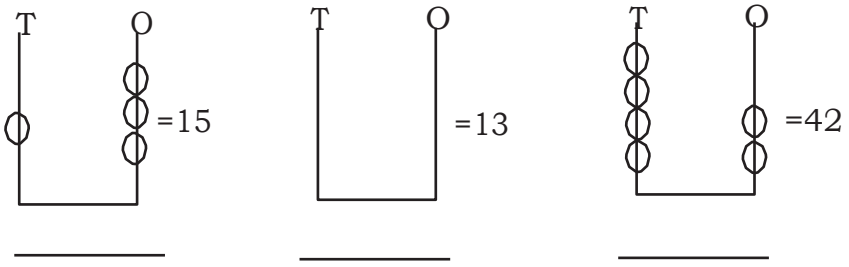




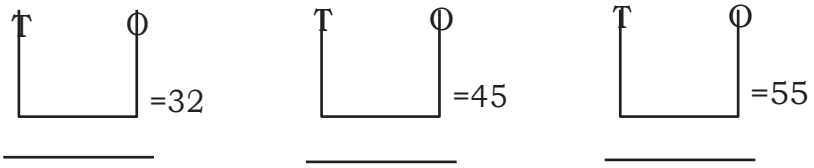
Complete the following



Representing numbers on the abacus

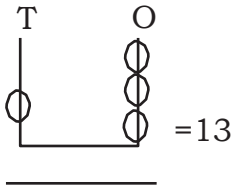


Activity



Writing place values of the circled digits

Examples



b) 4 5

c) ⑥ 4 - Tens

d) ① 7 - Tens

Activity

What is the place value of the circled numbers?

⑨ 4 7 ⑦ ② 1 ③ 3

⑧ ② 5 4 ② 5 ⓪

Writing place values of the underlined numbers

Examples

3 0 ones
5 1 ones
8 7 tens
6 3 tens

Exercise

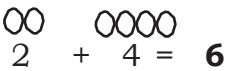
Write the place values of the underlined numbers

Addition of one digit number horizontally

Examples

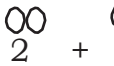
2 + 3 = **5**

3 +1 + 2 = **6**

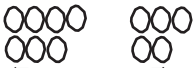


2 + 4 = **6**

4 + 2 + 2 = **8**



2 + 1= **3**



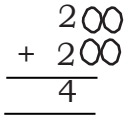
7 + 5 = **12**

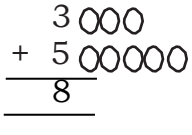
Activity

3+1= 3+3=
9+7= 4+2=
5+5= 2+2=
3+2= 5+6=
7+7= 8+0=

Addition of one digit vertically

Examples





Activity

5balls +1 ball ☐	6 +3 ☐	6 +2 ☐	3 +6 ☐

Addition involving words

Examples

1. 1book plus2 books equals 3 books
2. 5bags +3 bags = 8bags
3. 3 boys plus2 boys give 5boys

Activity

1. 3 girls plus 2 girls equals
2. 1 box plus 4 boxes equals
3. 4 tables plus5 tables equals
4. 9 pencils plus 0 pencils equals
5. 3 boys plus 2 boys give
6. Apio has3 tins. Aisha has 4 tins. How many tins do they have altogether?
   Kate has 2 dusters. Jane has 8dusters.Howmanydusters do they have altogether?

Addition of two digit number vertically

Example

T	O
1	1 0
+	2 00
1	3

T	O
	200
+	1
	3

T	O
200	200 0000
+ 1	4
3	6

T	O
3 000	3 000
+3 000	+3 000
6	6

Activity

T	O
5	5
+ 0	1

Addition of numbers involving words

Mary has 6 pots. Ivan has 6pots. How many pots do they have altogether?

6pots + 6pots= 12pots

Jady had 3 cups. Daddy gave her 7 more pots. How many pots did she have altogether?

3cups +7 cups =10 cups

Activity

1. Musa had 8apples. Ali gave more 8 apples. How many apples did he have altogether?
2. Who has more apples?

3. Liz ate 12 eggs in the morning. Lisa ate6eggs.

a) How many eggs did the two eat altogether?

b) Who ate more eggs?

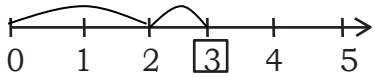
c) Who ate less eggs?

4. Daddy has three baskets. Mummy has six baskets. How many baskets do they have altogether?

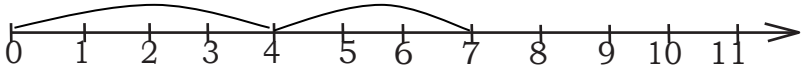
Addition using a number line

Examples

2 +1 = 3



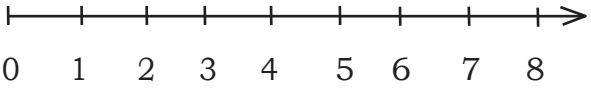
4 +3 = 7



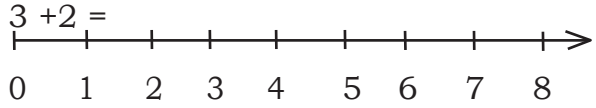
Activity

Add using a number line

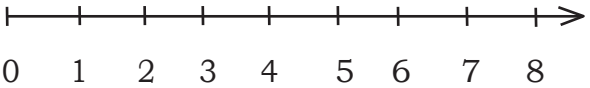
2 +2=



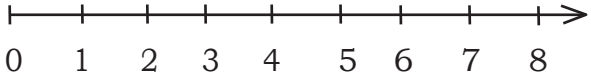
3 +2 =



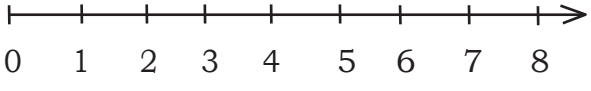
3 +2 + 2 =



5 +4 =



5 +0=

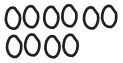


Subtraction of one digit number horizontally

Examples

a) 4 – 2 = 2

b)8-3=5



c)10-4=6

d)6-4=2

Activity

1-9-3 =

2-10-5=

3-6-3=

4-8-3=

5-9-6=

6-7-2=

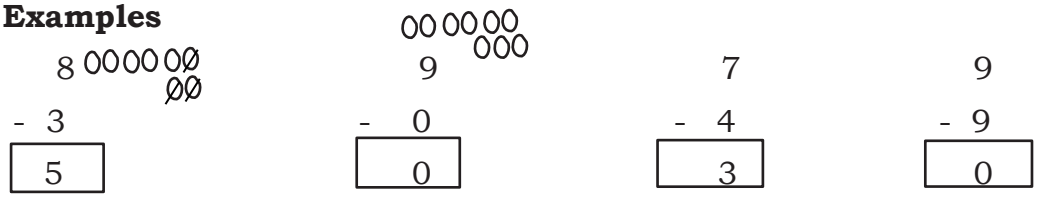
7-8-8=

8-4-0=

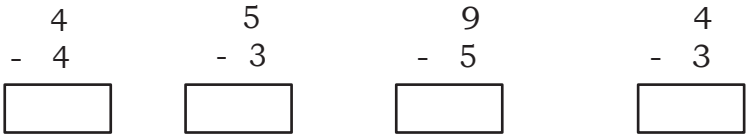
9-7-1=

Subtraction of numbers without regrouping

Examples



Activity



Subtraction of numbers involving words

Examples

Four take away two equals

two Six minus six equals zero

Seven take away two equals five

Ten minus seven equals three

Mother had eight eggs. She gave away one egg to Mary. How many remained?

8eggs -1 egg = 7eggs

Activity

1. Eight take away four equals
2. Ten minus seven equals
3. Twelve takeaway three equals
4. Four takeaway two equals
5. Two minus two equals

Subtraction of two digit numbers vertically

Examples

T	O
3	5
- 1	2
2	3

T	O
2	8
-	8
2	0

T	O
8	9
- 3	6
5	3

Activity

T	O
4	4
- 2	2

T	O
6	4
- 2	1

T	O
2	8
- 1	3

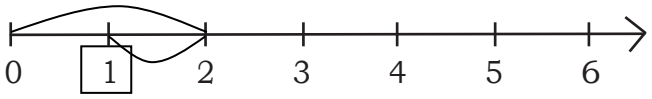
Word problems involving subtraction of numbers

Eleven take away four = 7 seven
11 – 4 = 7

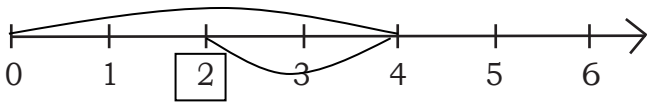
Four take away zero equals four
4 – 0 = 4

Subtraction using a number line

2-1= 1



4-2= 2



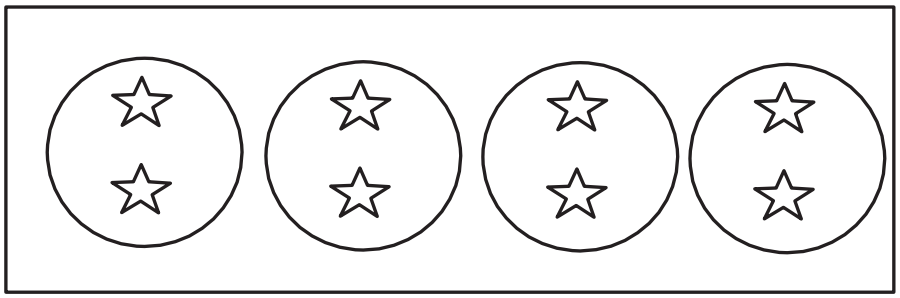
Activity

Subtract using a number line

4-2=
5-3=
6-4=
7-3=

Ringing/forming groups

Examples



4groups

How many groups have you made?

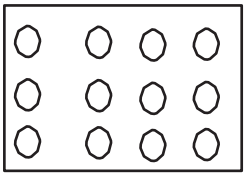
4groups

How many stars are there altogether?

8stars

Activity

Form groups of 4



a) How many groups have you made?
b) How many eggs are they altogether?

Drawing groups

Examples

1. 2groups1=2 

2. 3groups2=6 

3. 2groups2=4 

Activity

3 Groups of 2

6 groups of 2

4Groups of 2

3 groups of 3

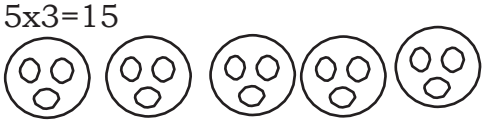
5 Groups of 2

2 groups of 1

Multiplication of one digit horizontally

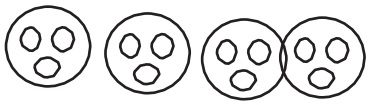
2x1=2

5x3=15



4x2=8

4x3=12



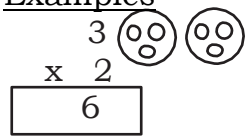
Activity

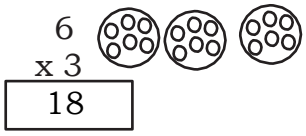
Work out the following

3x4= 6x2= 9x3= 9x2= 3x3=

Multiplication horizo

Examples





Activity

Multiply

3 x 2 | 3 x 3 | 6 x 0 | 1 2 x 2 | 3 2 x 4 | 2 2 x 2

Multiplication of two digits vertically

3 2 x 2 | 1 2 x 2 | 1 0 x 4

Word problem solving

Examples

One bird has two eyes. How many eyes do 3 birds have?

2eyes x 3 = 6 eyes

Word problem involving multiplication of numbers

Examples

1. One bird has two eyes. How many eyes do3birdshave?2eyesx3=6 eyes
2. How many legs do four boys have?

4x2=8legs =8 legs

Activity

1. How many fingers do three grandmothers have?
2. One girl has two ears. How many earsdo5 boys have?
3. Four balls are put in each basket. How many balls will be in2 baskets?
4. Two beads are put on each string. How many beads will beon8 strings?
5. Four times two equals

Word problem solving

Examples

1. One bird has two eyes. How many eyes do 3 birds have?
   2 eyes x3 = 6 eyes
2. How many legs do four boys have4x2=8legs

Activity: MK MTCbookpage44

Multiplication of 3 digit numbers

Examples

3 00	1 23	2 31
x 2	x 2	x 2
6 0 0	2 4 6	4 6 2

Activity

1 00	2 22	3 11
x 2	x 2	x 2

Counting in twos

Examples

2two =2+2=4

3twos =2+2+2=6

3twos =2+2+2=6

2+2+2+2 =4 twos=8

2+2+2+2+2 =5twos=10

Activity

9two=
4 twos=
5 twos=
3twos=

3twos=
6twos=
7twos=
8twos=

Multiplication of 2 as repeated addition

Examples

2+2+2+2 =2x3 =6

2+2=2x2 =4

Activity

Multiply 2 as repeated addition

2+2+2 = _____ = _____

2+2+2+2+2= _____=_____

2+2+2= _____ = _____

2+2+2+2= _____x ____

2+2= ____ x _____

2+2+2+2+2+2= ____

Application of multiplication

Two twos are four

Three twos are six

One two is two

Five twos are ten

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Activity

Multiply

Two twos=

twos =

Six twos =

Seven twos = Four

Nine twos =

Five twos =

Counting in threes

1 three =3
2 threes=3+3=6
3 threes=3+3+3=9
4 threes=3+3+3+3=12

Complete

5 threes=3+3+3+3+3=
7 threes=3+3+3+3+3+3+3=
8 threes=3+3+3+3+3+3+3+3=
10 threes=
6 threes=
9 threes=
One three=

Counting in fives

Examples

0,5, ___ ,15,20,25,30,35
10,15,20,25,30,35
25,30,35,40,45,50,55

Activity

Count in fives

30, _____,40,50
15, ____ , _____ ,30 , _____
20, ____,30, ___ ,40
5,10,15,20,25, ___ , ____,35
50,55,___,_____,70, ____
90,85,80,___,70

Application of multiplication

One five is five 5x1=5
Two fives are ten 5x2=10
Three fives are fifteen
Four fives are twenty five
Five fives are twenty five

Activity

Six fives =
Seven fives =
Eight fives =
Nine fives =
10fives =
2 fives =

Counting in tens

1ten=10
2tens=10+10=20
3tens=10+10+10=30
4tens=10+10+10+10=40
5tens=10+10+10+10+10=50

Activity

Fill in missing tens

10,20,30,___,_____,60

30,___,_____,60,__,80

100,90,80,70,__,____,

22,33,___,____,____

Ordinary numbers

1 -1st

2 -2nd NewMKPr.Mathspupilsbookpage102-103

3 -3rd

4 -4th

5 -5th

6 -6th

7 -7th

8 -8th

9 -9th

10-10th

Activity

Match correctly

1	6th	second
4	3rd	fourth
2	1st	sixth
3	4th	third
6	2nd	first

Write in words

11th
7th
14th
9th
25th

Writing ordinal number in words

1st first	7th seventh	12th twelfth
2nd second	8th eighth	13th thirteenth
3rd third	9th ninth	14th fourteenth
4th fourth	5th fifth	6th sixth

Activity

Fill in the missing letters

fi__st sixt__ n

S __co __ d

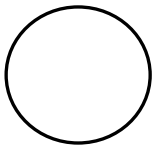
Th__ __d

Write in words

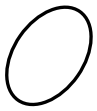
2^{nd} 1^{st} 4^{th}

10^{th} 9^{th} 3^{rd}

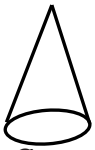
Identifying shapes
Examples



Circle

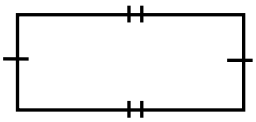


Oval

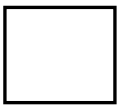


Cone

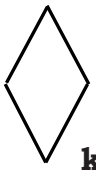
Cylinder



rectangle



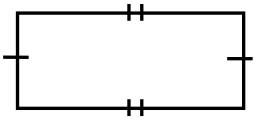
square

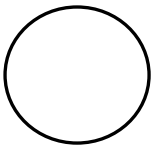


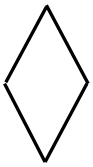
kite

Activity

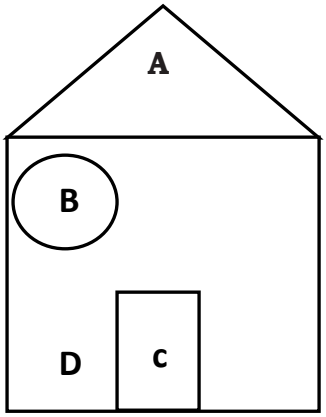
Name the following







Naming shapes



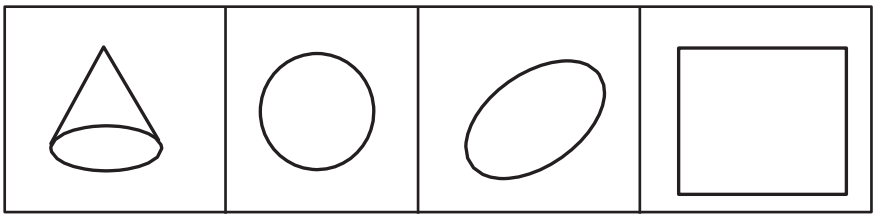
A. triangle

B. Circle

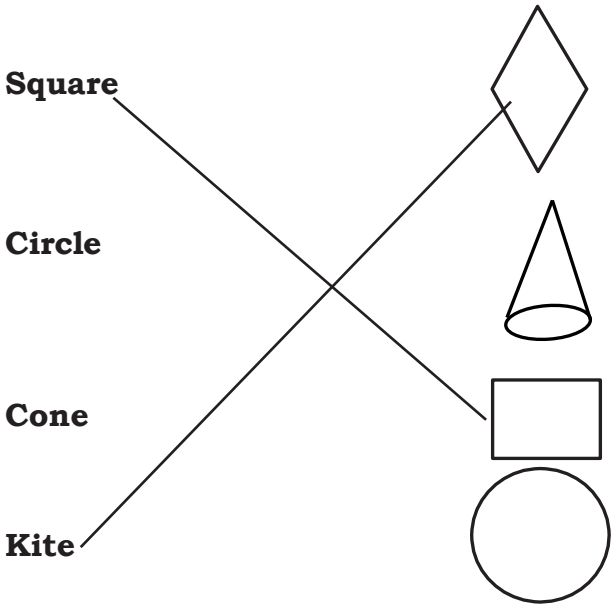
C_____

D_____

Drawing these shapes and tracing



Reading and matching sorting objects
Example

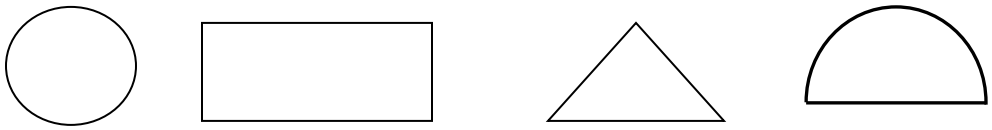


TERM TWO

FRACTIONS

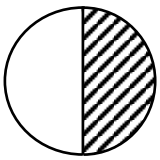
Definition of a fraction and examples.

A fraction is a part of a whole.

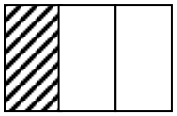


Examples

$\frac{1}{2}$ a half



$\frac{1}{3}$ a third

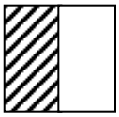


$\frac{1}{4}$ a quarter

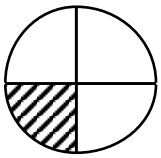
Exercise

Name the fractions

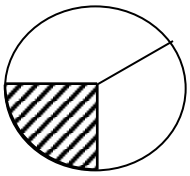
$\frac{1}{2}$



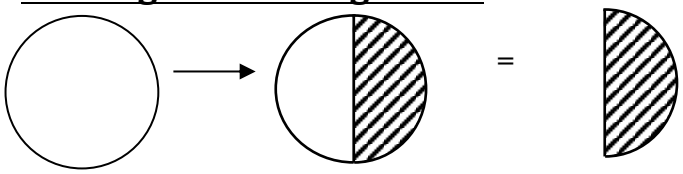
$\frac{1}{4}$



$\frac{1}{3}$



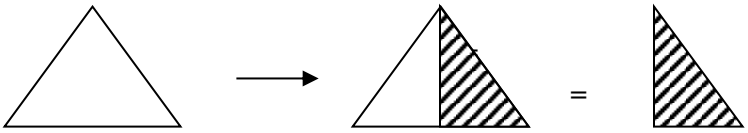
Drawing and shading a half.



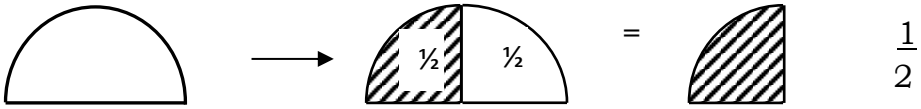
$\frac{1}{2}$ a half

$\frac{1}{2}$ a half

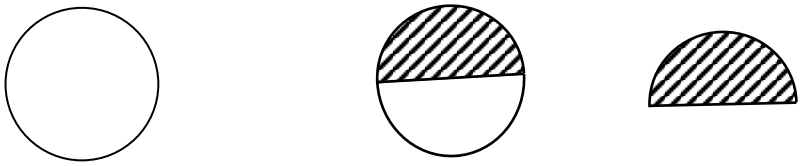
Exercise



$\frac{1}{2}$

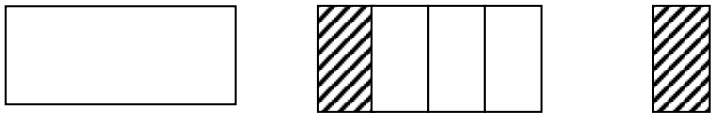


$\frac{1}{2}$

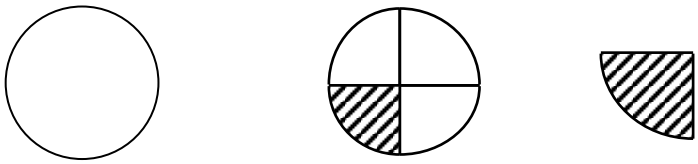


$\frac{1}{2}$

Drawing and shading a quarter

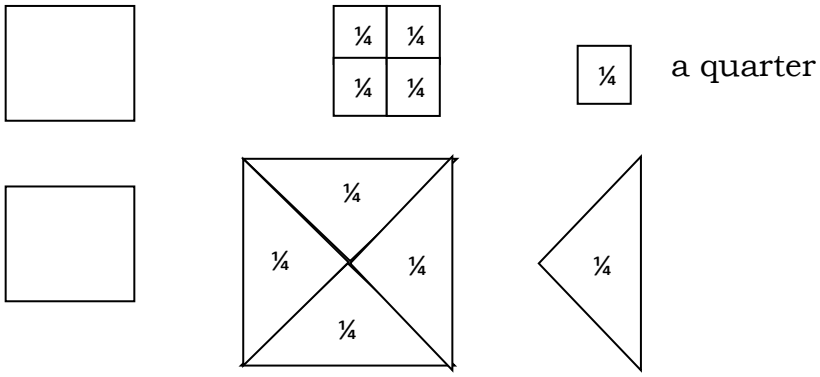


¼ a quarter



¼ a quarter

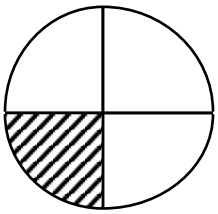
Exercise



a quarter

¼ ¼

¼ ¼

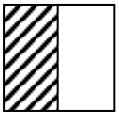


Naming fractions

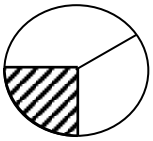
1 ⟶ Numerator

2 ⟶ Denominator

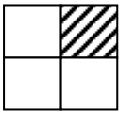
Name the shaded parts



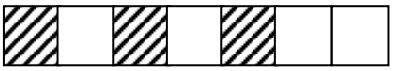
$\frac{1}{2}$(a half)



$\frac{1}{3}$ (a third)

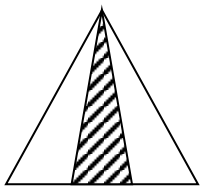


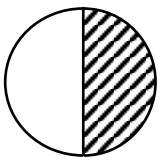
$\frac{1}{4}(a\ quarter)$

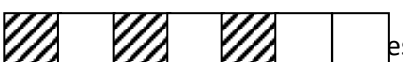


$\frac{3}{7}$ $(three\ seventh$

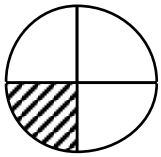
Exercise



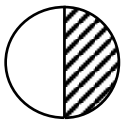


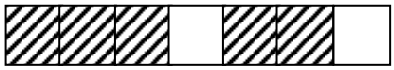


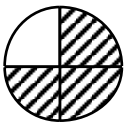
Shading fractions



Shade the following

$\frac{1}{2}$ 

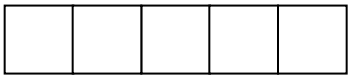
$\frac{5}{7}$ 

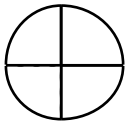
$\frac{3}{4}$ 

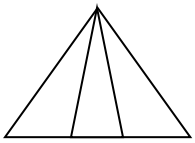
Exercise

Shade the fractions

 $\frac{1}{2}$

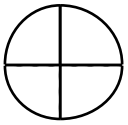
 $\frac{3}{5}$

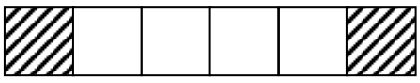
 $\frac{1}{4}$

 $\frac{2}{3}$

Shaded fractions

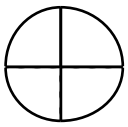
Write the shaded fractions

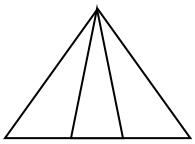
 $\frac{2}{4}$



Unshaded fractions

Write the unshaded fractions

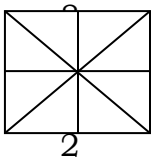




Addition of fractions

Add: $\frac{1}{4} + \frac{2}{4} = \frac{1+2}{4} = \frac{3}{4}$

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



$+ \frac{1}{2} = \frac{1+1}{2} = \frac{2}{2} = 1$

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

Exercise

$\frac{2}{4} + \frac{1}{4} =$

$\frac{3}{5} + \frac{1}{5} =$

$\frac{1}{3} + \frac{1}{3} =$

$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} =$

$\frac{3}{7} + \frac{2}{7} + \frac{1}{7} =$

Word problem on addition

Add $\frac{1}{2}$ *and* $\frac{1}{2}$

$\frac{1}{2} + \frac{1}{2} = \frac{1+1}{2}$

$= \frac{2}{2} \quad = 1$

Find the sum of $\frac{3}{5}$ *and* $\frac{1}{5}$

$\frac{3}{5} + \frac{1}{5} = \frac{3+1}{5} = \frac{4}{5}$

Exercise

Add $\frac{3}{7}$ *and* $\frac{2}{7}$

$= \frac{4-2}{7}$

$= \frac{2}{7}$

$\frac{6}{8} - \frac{4}{8} = \frac{2}{8}$

Exercise

$\frac{5}{7} - \frac{4}{7} =$

$\frac{4}{8} - \frac{3}{8} =$

$\frac{2}{2} - \frac{1}{2} =$

$\frac{9}{11} - \frac{6}{11} =$

$\frac{5}{11} - \frac{4}{11} =$

$\frac{3}{4} - \frac{0}{4} =$

Word problem on subtraction of fractions

Subtraction

$\frac{2}{2} - \frac{1}{2} = \frac{2-1}{2}$

$= \frac{1}{2}$

$\frac{4}{9}$ *minus* $\frac{3}{9}$

$\frac{4}{9} - \frac{3}{9} = \frac{4-3}{9} = \frac{1}{9}$

Exercise

Find the difference of $\frac{4}{8}$ *and* $\frac{1}{8}$

$\frac{7}{8}$ *minus* $\frac{5}{8}$ *equals*

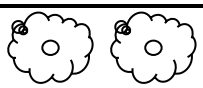
$\frac{3}{4}$ *take away* $\frac{1}{4}$ *equals*

What is the difference of $\frac{8}{9}$ *and* $\frac{6}{9}$

GRAPHS

Pictorial graph

Five children were asked to pick flowers

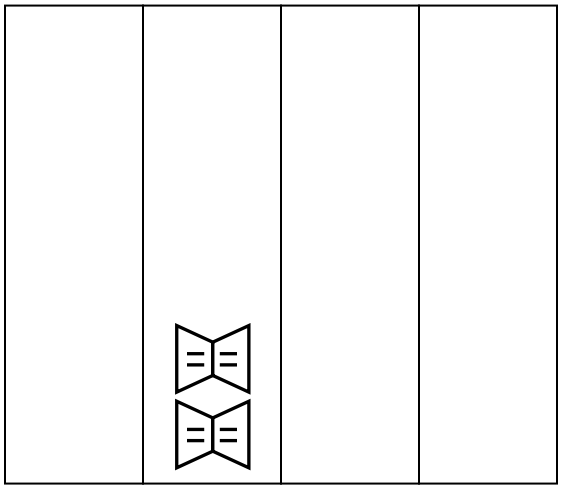
Tom	
Ali	
Tina	
Paul	
Peter	

a) Who picked more flowers?
b) _____ and _____ have the same number of flowers.
c) Who has two flowers?
d) Who picked few flowers?
e) How many flowers do they have altogether?

Drawing picto graphs

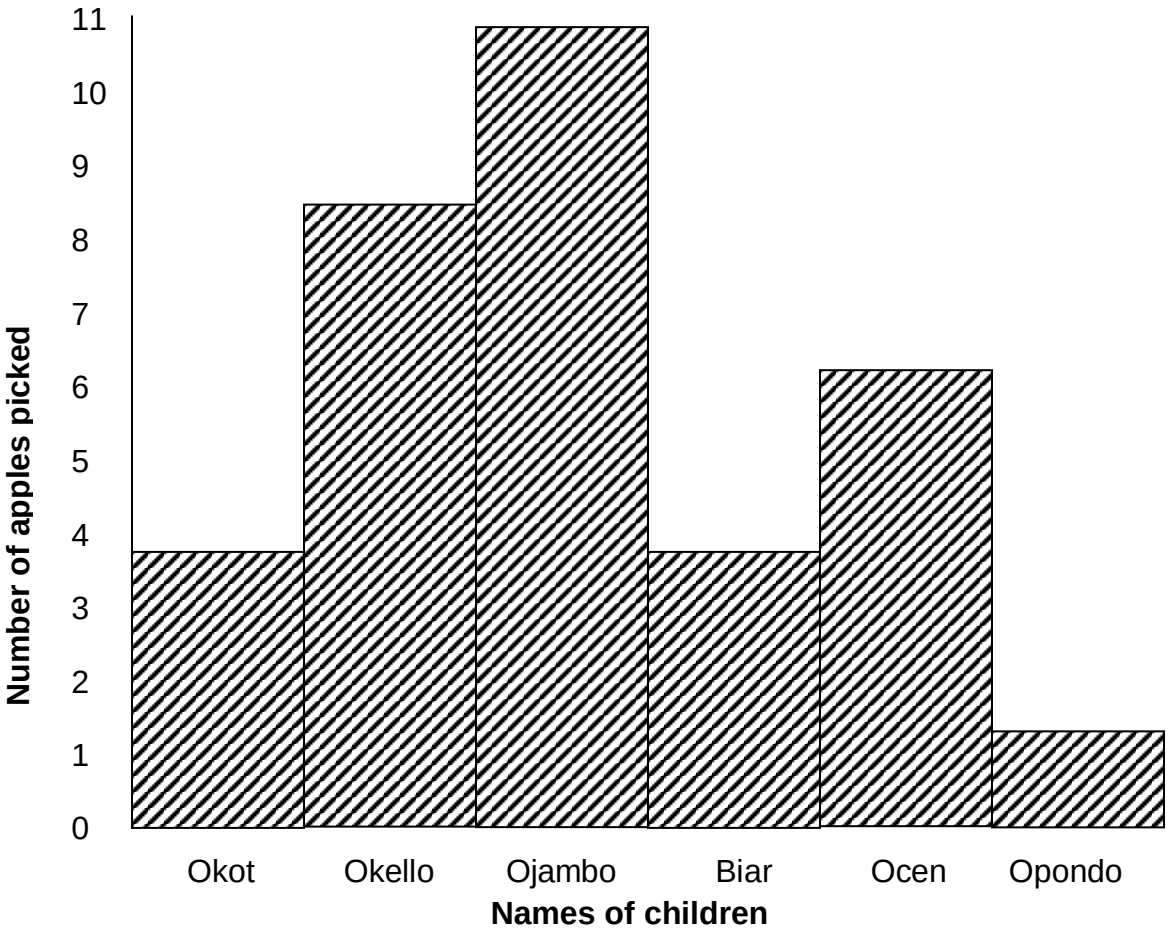
Four girls were given books as follows.
Mary got 4 books
Ruth got 5 books
Ann got 2 books
Alice got 3 books

Complete the picture graph below.



BAR GRAPH

Study the bar graph below and use it to answer the questions that follow.



a) How many children got apples?

b) Who picked the biggest number of apples?
c) Who picked the same number of apples?
d) Who picked the smallest number of apples?
e) _____ picked seven apples.
f) Who picked six apples?

MEASURES

Money

Recognizing different money denominations.

Money is a medium of exchange.

There are two forms of money
1. Paper money
2. Coin money

Paper money (notes)

Examples of money and features on money
50 shilling coin - A head of a Kob
100 shilling coin - A cow
200 shilling coin - A fish
500 shilling coin - A head of crested crane

Notes/paper money

1,000 note
2,000 note
5,000 note
10,000 note
20,000 note
50,000 note

Shs. /= means Shillings

Ref. Understanding Mathematics Bk.1 Pg.14

Addition of money horizontally

Shs. 50 + Shs. 50 = Shs.100

100/= + 200/= = 300/=

Shs. 2 + Shs. 4 = Shs. 6

Reference MK Old edition Bk 1 Pg.128
New edition Pg.94

Addition of money vertically
Examples

Sh. 30	Sh. 20	Sh. 250	sh. 400
+sh. 40	+ Sh. 80	+ Sh. 300	+sh. 300
sh. 70	Sh. 100	Sh. 550	sh. 700

Mk Old edition pupils Bk.1 Pg.127

Word problems involving addition of money

A book costs Sh. 200
How much will I pay for 2 books altogether

Activity

a) Shs. 200 plus Shs. 400 gives ___
b) A pencil costs Shs. 100. A ruler costs Shs. 500
   How much money do the two items cost altogether?
c) 400/= plus 300/= equals
d) Ali had Shs. 100. His dad gave him another Shs. 300
   How much money does he have now?

MK Bk 1 Pg.129

Subtraction Money

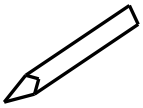
Examples

Sh.500	Sh.450	Sh.40
- Sh.200	- Sh.250	- Sh. 10
Sh.300	Sh.200	Sh. 30

800/= minus 100/= equals ____
700/= minus 200/= equals ____
700/= minus 200/= equals ____

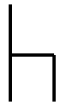
Ref MK pupils book 1 page 130

SHOPPING


Shs.50


Shs.100


Shs.500


Shs.700


Shs.500

a) How much is a book?
b) Which item costs shs.100/=
c) What is the cheapest item?
d) How much is a cup and a ball altogether?

e) Which items cost the same amount?
f) Which item is more expensive?

TIME

Fact about time

There are 24 hours in a day.
There are 60 minutes in 1 hour
There are 60 seconds in 1 minute

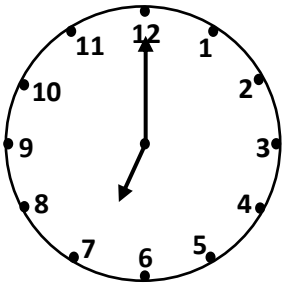
There are two main hands on a clock face

- The minute hand (long hand)
- The hour hand (short hand)

There are two systems of time

- 12 hour clock
- 24 hour clock

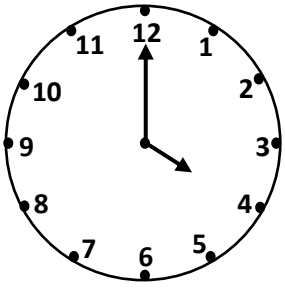
Telling time in full hours (exact time)



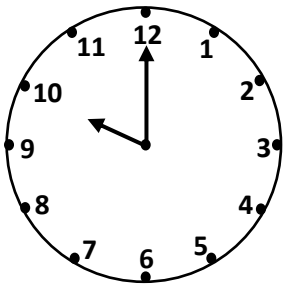
It is 7 o'clock

Activity

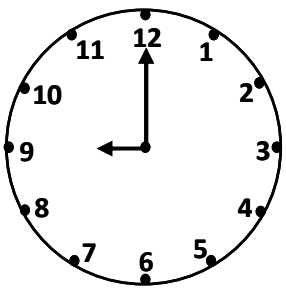
What is the time?

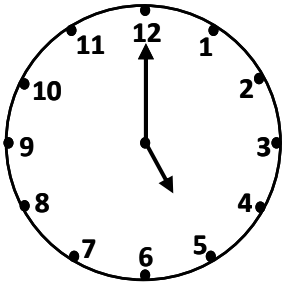


It is ____ o'clock



It is ____ o'clock

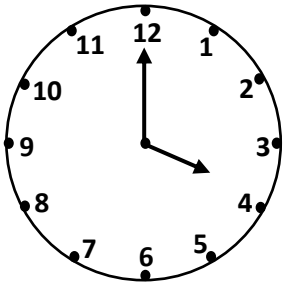




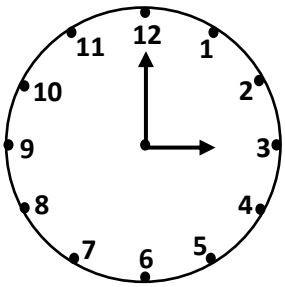
It is ____ o'clock

It is ____ o'clock

Showing time in full hours

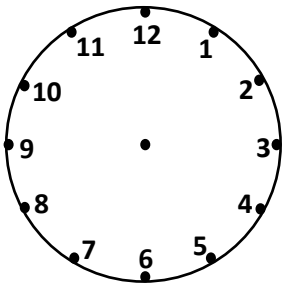


It is **4** o'clock

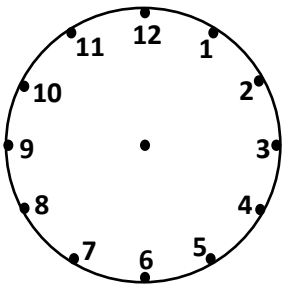


It is **3** o'clock

Activity

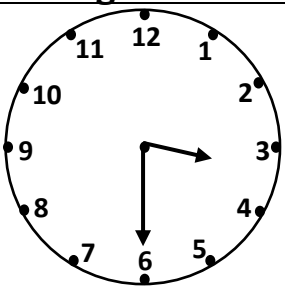


It is 6 o'clock

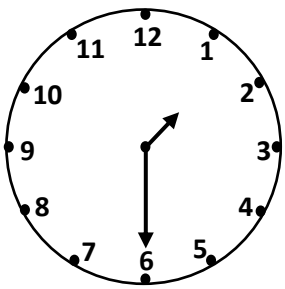


It is 8 o'clock

Telling time in half hours

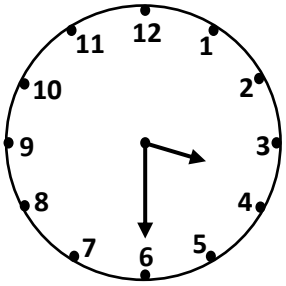


It is a half past 3

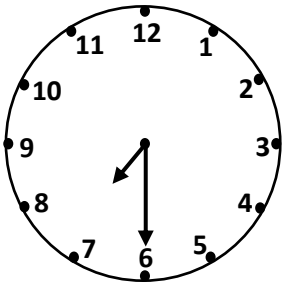


It is a half past 1

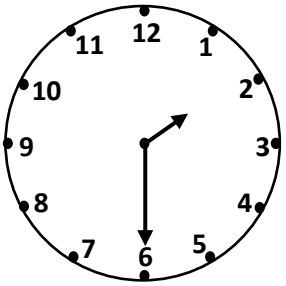
Activity



It is _____

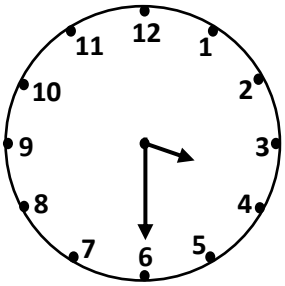


It is _____



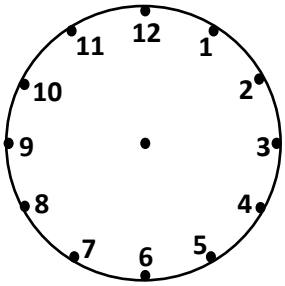
It is _____

Showing time in half hours

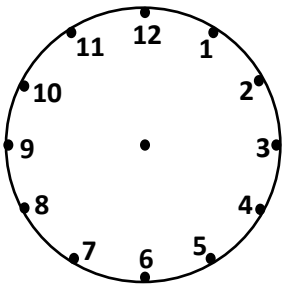


It is half past three

Activity



It is a half past ten o'clock



It is half a half past 1

Complete correctly

1 day	12 months
1 week	60 minutes

1 hour	7 days
I year	24 hours

MK MTC Bk 3 Pg.130

Days of the week

There are seven (7) days in a week. These are;

- Sunday
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday

Activity

1. Fill in the missing letters
   a) M ___ nday b) Frid ___ y c) Thu ___sday
2. What is the last day of the week?
3. Write the first day of the week.
4. On which day do Christians go to church?
5. If today is Saturday, tomorrow will be a _____
6. On which day do Muslims go for Juma prayers?
7. How many days make 2 weeks?
8. What is the third day of the week?

MK MTC Bk.1 Pg. 114 – 116

Positioning days of the week

Sunday	first
Monday	second
Tuesday	third
Wednesday	fourth
Thursday	fifth
Friday	sixth
Saturday	seventh

Activity

1. What is the second day of the week?

2. What is the seventh day of the week?
3. ____ is the fourth day of the week.
4. If today is Monday, tomorrow will be ____
5. Which day comes after Friday?

Months of the year

There are 12 months in a year.

Month	**Days**
January	31 days
February	28/29 days
March	31 days
April	30 days
May	31 days
June	30 days
July	31 days
August	31 days
September	30 days
October	31 days
November	30 days
December	31 days

Activity

1. What is the first month of the year?
2. Which is the last month of the year?
3. Which month has 28/29 days?
4. Which month comes before June?
5. Write in full.
   a) Jan.
   b) Oct.
   c) Dec.
   d) Nov.
   e) Sept.

LENGTH

Length is the distance between two points.

The basic unit for measuring length is metres (m)

Things used to measure length

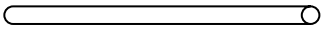
- Ruler
- Tape measure
- Handspans
- Armspans
- Strides
- A stick

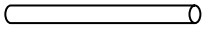
Things measured in length

- Desk
- Paper

- Rope
- Books
- Doors
- Strings
- Books
- Walls

Comparing length of different objects

 Stick R

 Stick Z

1a) Which stick is longer?
b) Which stick is shorter?

2.  Tree K  Tree G

a) Which tree is taller?
b) Which tree is shorter?

Addition of length in centimetres (cm) and metres (m)

Add these numbers below

a) 6 metres + 3 metres =

b) 2 metres + 2 metres =

c)

4 m	6 m	20 m	8 m
+ 7 m	+ 3 m	+10 m	+2 m
_____	_____	_____	_____
_____	_____	_____	_____

d)

m	m	m	m
7	3	100	30
+ 8	+ 4	+ 300	+ 10
_____	_____	_____	_____
_____	_____	_____	_____

e)

15 cm	55 cm
+ 24 cm	+ 32 cm
_____	_____
_____	_____

Word problems involving addition of length

Addition in cm , km , m

Examples

1. John walked 5km on Monday. He also walked 3 km on Tuesday. What distance did he move altogether?

$$\begin{array}{r} 5 \text{ km} \\ + \ 3 \text{ km} \\ \hline 8 \text{ km} \end{array}$$

2. Mary's dress is 4 metres long. Annet's dress is 3 metres long. How long are the two dresses?

$$\begin{array}{r} 4 \text{ metres} \\ + \ 3 \text{ metres} \\ \hline 7 \text{ metres} \end{array}$$

Subtraction of length in cm and m

Subtract / take away

5 m – 4 m = 1 m

Activity

8 m	6 cm	14 m	70 cm
- 3 m	- 4 cm	- 4 m	- 30 cm

Word problems involving subtraction of length

1. Teacher had 16m of a cloth. She cut 6m of it. How long was the cloth that remained?
2. Tom had a sugarcane of 4m long. She ate 2m of it. How long was the sugarcane?
3. What is 7m and 4m less?
4. George had a pole of 7m long. He cut 5m from it. How long was the remaining pole?

MK Mathematics pupils Bk.3 Pg. 150

WEIGHT

Weight is the heaviness or lightness of something.

The standard unit is grammes / grams gm/g

Weight is measured in kilograms (kg)

Things used to measure weight

- Sea saw
- Beam balance
- Spring balance
- A set of scale balance

Things we can measure

- Sugar
- Beans
- Rice
- Millet
- Posho e.t.c

Comparing weight using heavier and lighter

an orange

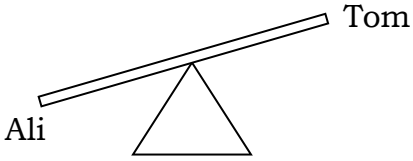
a pineapple

1. Which of the above is lighter?
2. Which of the above is heavier?

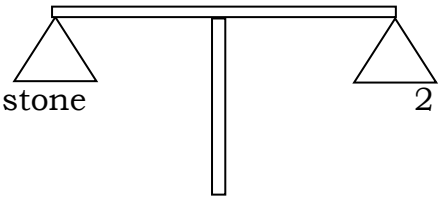
a cup

a pencil

1. Which object is lighter?
2. Which object is heavier?



1. Who is lighter?
2. Who is heavier?



2 kg of stone

2 kg of feathers

Which object is lighter?

Addition of weight in kg and g

1) 4kg + 3kg = _____ kg
2) 2kg + 1kg = _____ kg
3) 10kg + 2kg = ____ kg
4) 4g + 3g = ____ g

5)

40kg	4kg	80kg
+ 20kg	+ 2kg	+ 40kg
_____	_____	_____

Word problems involving addition of weight

1. 6kg plus 1kg equals
2. Daddy has 5kg of beans. Mummy has 3kg of beans. How many kg do they have altogether?
3. 8kg plus 2kg equals
4. Julius weighs 2kg. Tom weighs 5kg. How much weight do they have altogether?

Subtraction of weight in kg/g

1. 4kg - 3kg =
2. 9kg – 7kg =
3.

8kg	35kg	400g	64kg
- 3kg	- 14kg	- 100g	- 21kg
_____	_____	_____	_____

Word problems involving subtraction of weight in kg and g

1. 5kg minus 2kg equals
2. 12kg take away 3kg equals
3. 8g minus 4g gives
4. 16kg take away 6kg equals

CAPACITY

Capacity is the amount of liquid a container can hold.

Capacity is measured in litres (L), Centimeters (CM), Milimetres (MM) e.t.c

Examples of liquids (things measured in litres

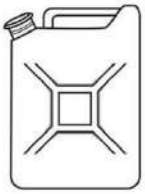
- Water
- Juice
- Paraffin
- Soda
- Milk
- E.t.c

Things used to measure liquids

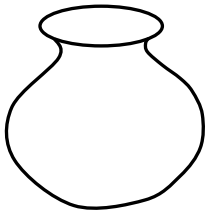
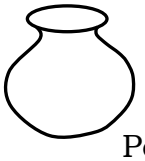
- Jerrycans
- Tanks
- Bottles
- Cups
- Glasses

- Bucket
- Basin

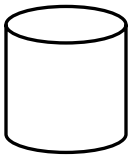
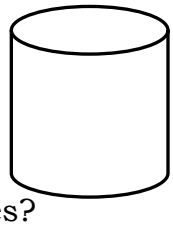
Comparing capacity of different containers

1.
a cup   a jerrycan

a) Which container holds more liquid
b) Which container holds less liquid

2.
 Pot W  Pot R

a) Which pot holds more liquids?
b) Which pot holds less liquid?

3.
Tin X  5 litres
Tin M  10 litres
Tin Z  2 litres

a) Which tin holds 5 litres?
b) How many litres can tin Z hold?
c) Which container/tin holds 10 litres?

Addition of capacity in litres (horizontally)

a) 3L + 4L = _____ litres
b) 1 L + 3L = _____

c)
$$\begin{array}{r} 2\ 4\ \text{L} \\ +\ 2\ 4\ \text{L} \\ \hline \\ \hline \end{array}$$

d)
$$\begin{array}{r} 4\ 0\ \text{L} \\ +\ 1\ 0\ \text{L} \\ \hline \\ \hline \end{array}$$

Word problems involving addition of capacity in litres

1. Five litres four litres equals
2. Eight litres plus one litre equals

3. Three litres plus two litres gives
4. Jonah had 6 litres of water. He fetched more 3 litres of water. How many litres does he have altogether?
5.  4 litres  1 litre

   How many litres are in both cups?

Subtraction of capacity in litres

a) 4L – 2L = _____ L

b) 8 litres
- 3 litres
_____

c) 2 5 litres
- 5 litres
_____

d) 4 7 L
- 1 2 L
_____

e) 10 litres – 6 litres = _____ litres

Word problems involving subtraction of capacity in litres

1. Ten litres minus six litres equals
2. Mummy had 3 litres of juice. She drank 3 litres. How many litres of juice were left?
3. Mary had 8 litres of cooking oil. She used five litres. How many litres of cooking oil remained?

ALGEBRA

Finding missing numbers in addition

Examples

a) 4 + ☐ = 5

b) ☐ + 6 = 10

Word problems

☐ plus five equals eight

Find missing numbers in subtraction

6 – ☐ = 2

☐ - 3 = 7

Word problems involving finding missing numbers in subtraction.

Seven take away ☐ equals three

☐ minus two equals six