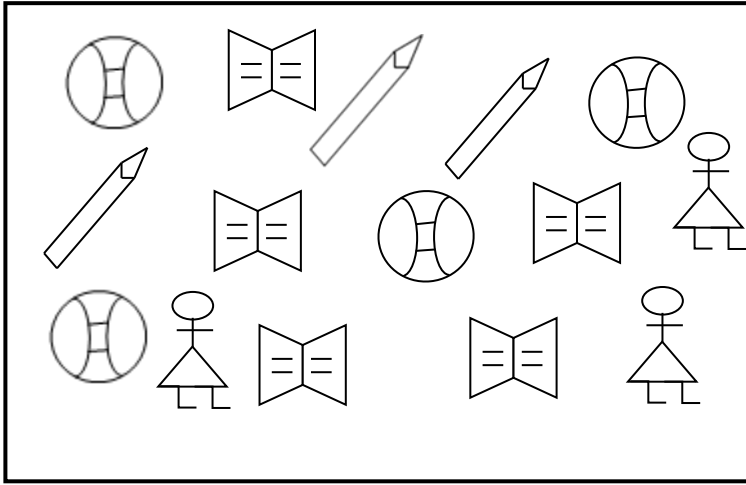
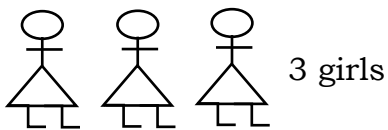
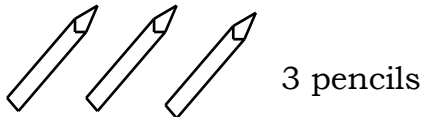
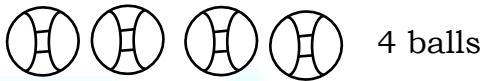


P.1 Mathematics Lesson Notes Term I – III

LESSON 1: Sorting real objects



4 balls
3 pencils
3 girls
5 books



Naming different groups

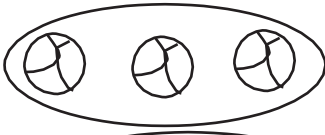


A SET

A set is a collection of well defined elements.

A set is a collection of things put together.

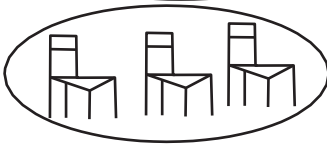
Things found in a set are called members/elements.

Naming sets**Examples**

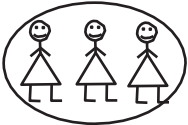
A set of balls



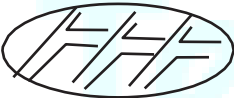
A set of tins



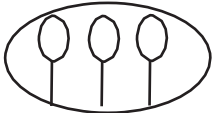
A set of chairs

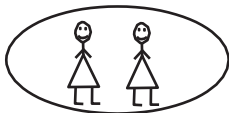
Activity**Name these sets**

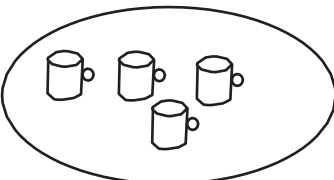






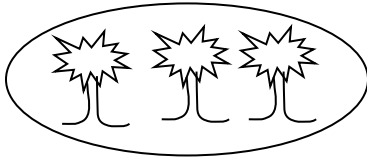




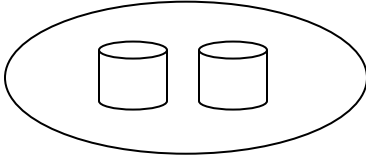




Read and draw sets
A set of 3 trees.



A set of 2 tins.

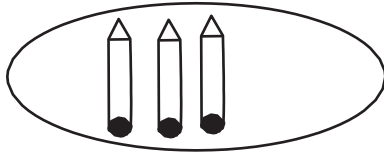
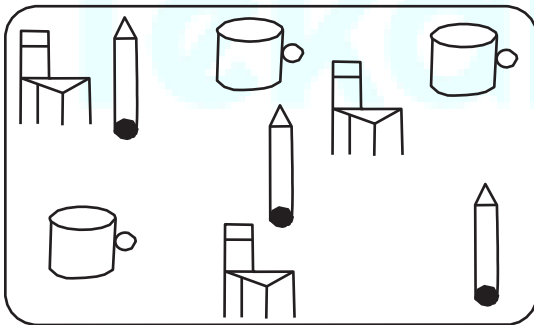


Activity

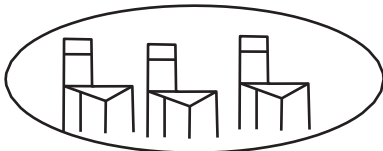
Draw these sets

- a) A set of 5 balls.
- b) A set of 3 pencils.
- c) A set of 1 book
- d) A set of tables

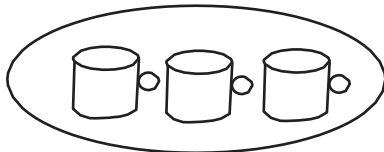
Forming and drawing sets



A set of pencils



A set of chairs



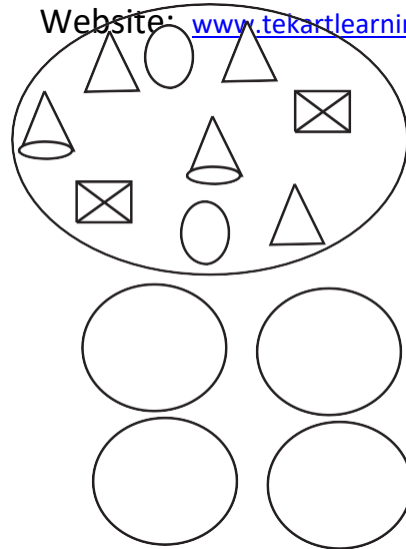
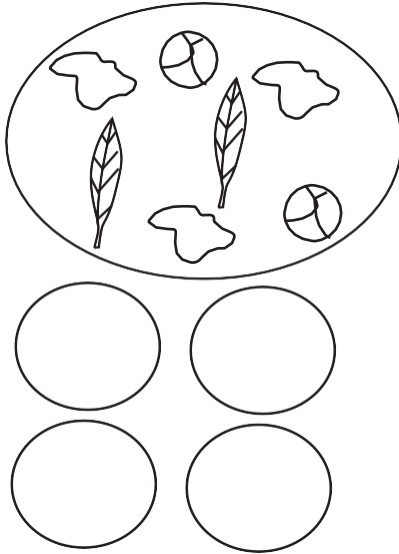
A set of cups

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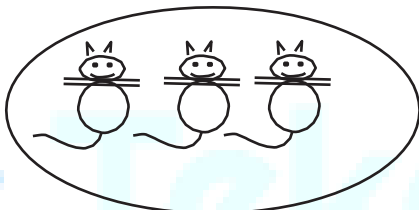
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1. Form sets

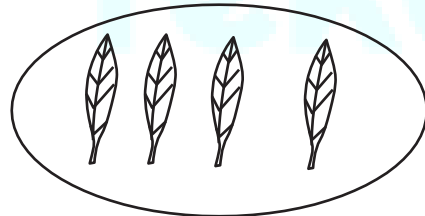


Counting members in a set

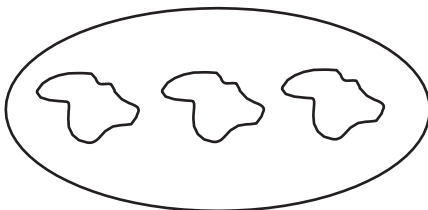
Examples



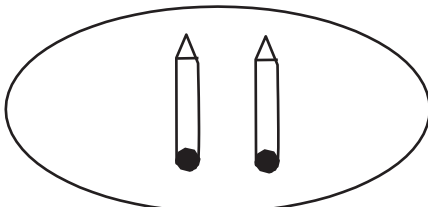
A set of three cats



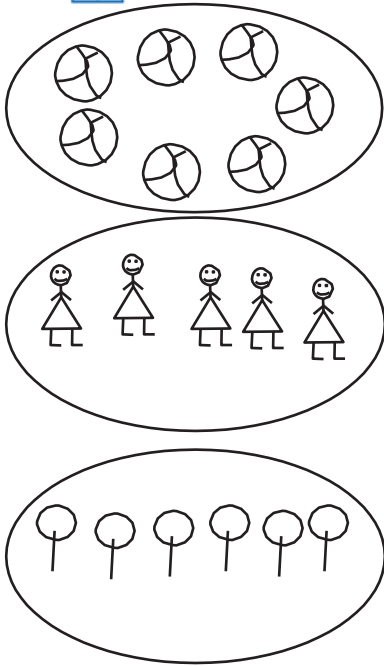
A set of 4 leaves



A set of 3 stones



A set of 2 pencils



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

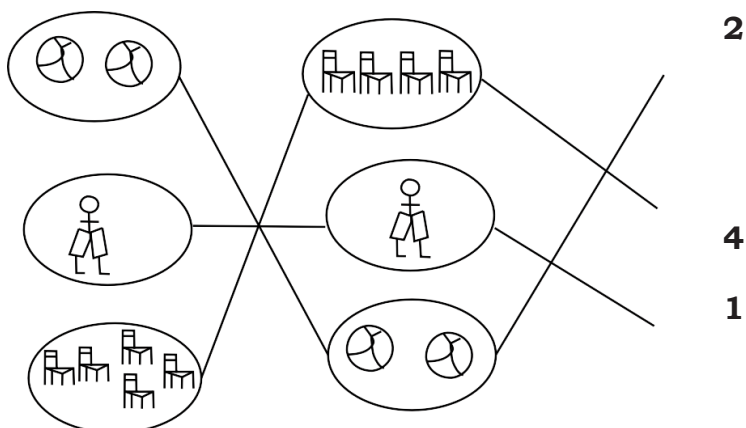
$\{ \}$

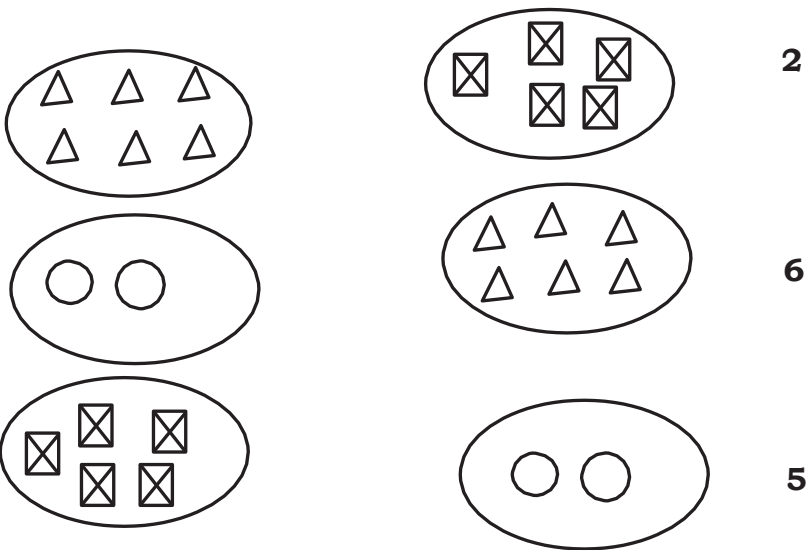
Activity

- a) A set of snakes with two legs

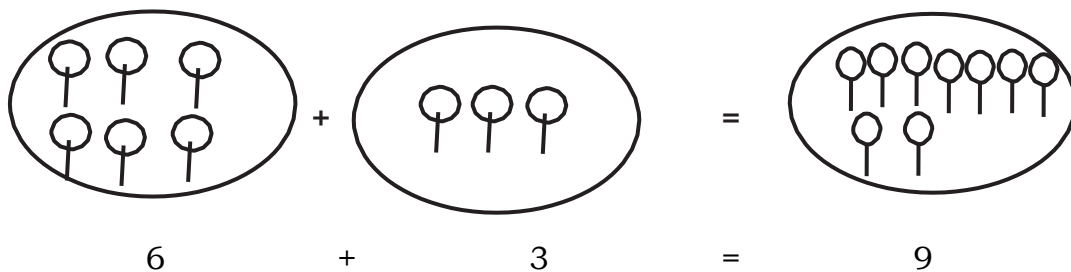
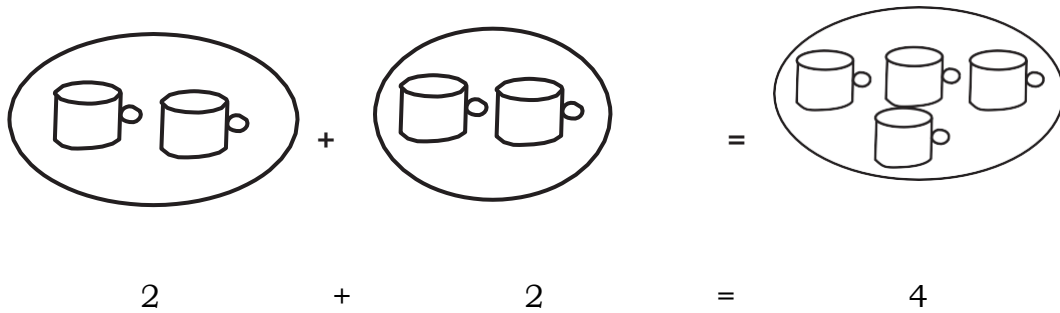
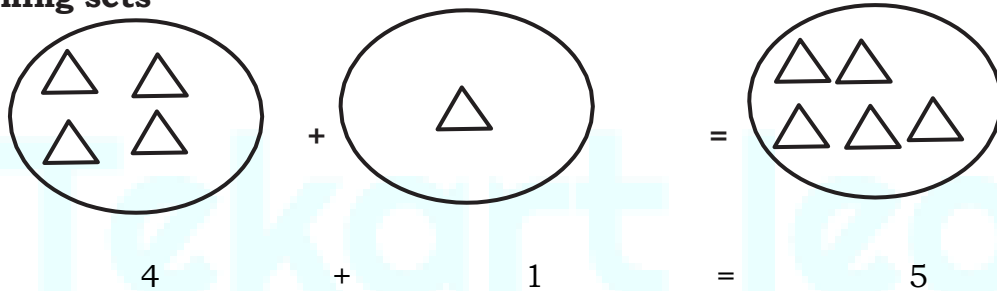
- b) A set of men with nine eyes

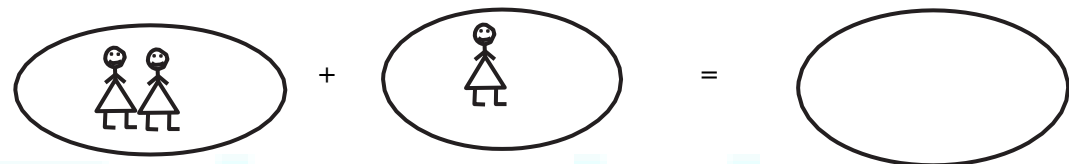
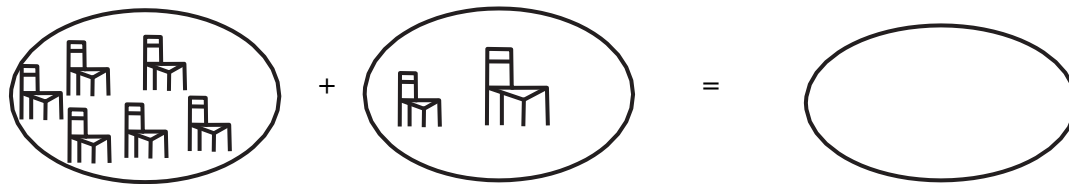
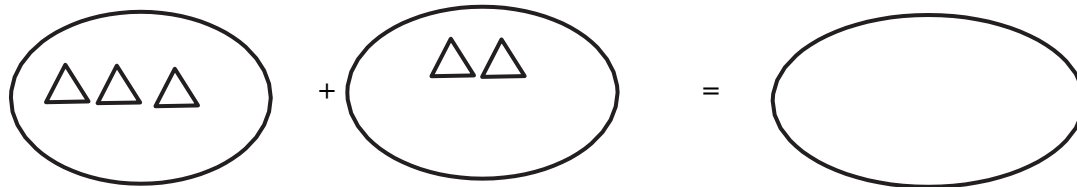
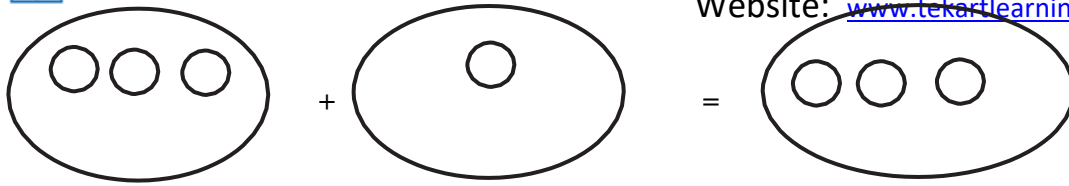
Matching sets



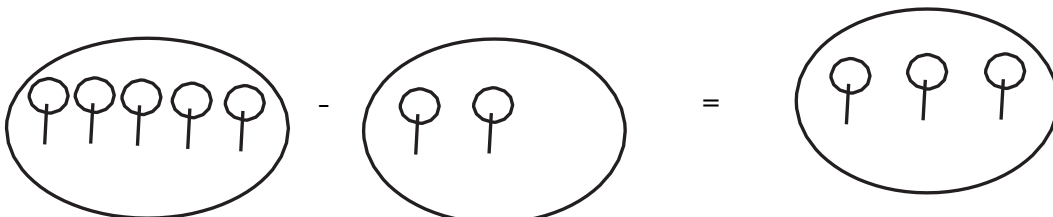
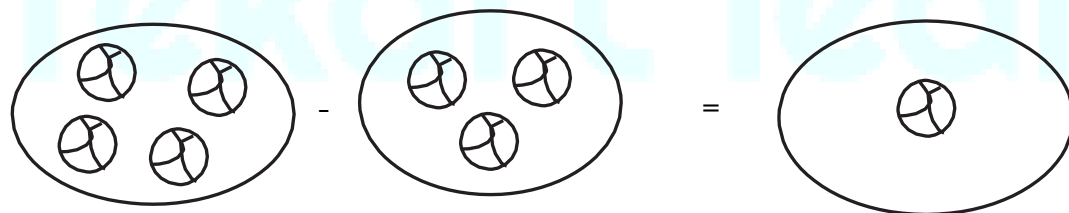


Joining sets

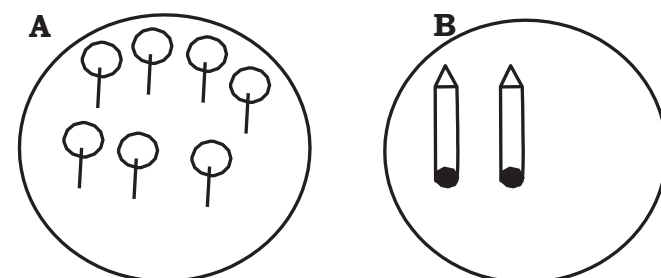




Separate the sets



Comparing elements in a set (less or more)



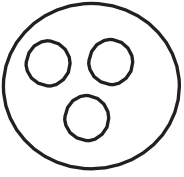
Which set has more members?

Set A has less members

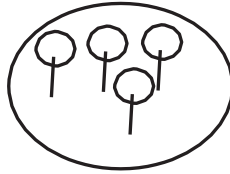
Set B has more members than set A

Activity

A



B



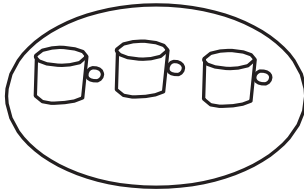
Which set has more members?

Set A has less members

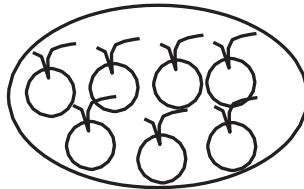
Set B has more members than set A

Ordering sets

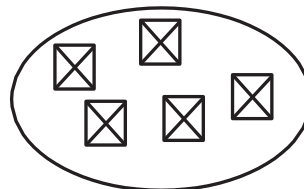
N



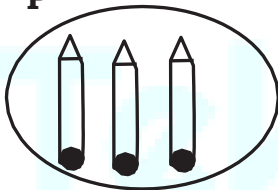
M



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



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Fill in the missing numbers

55, ____, ____, 58, 59,

97, 98, ____, ____,

81, ____, 83, 84, ____,

____, 60, ____, 62, ____, 40

Finding the number before

01 56 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



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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

9 12 13

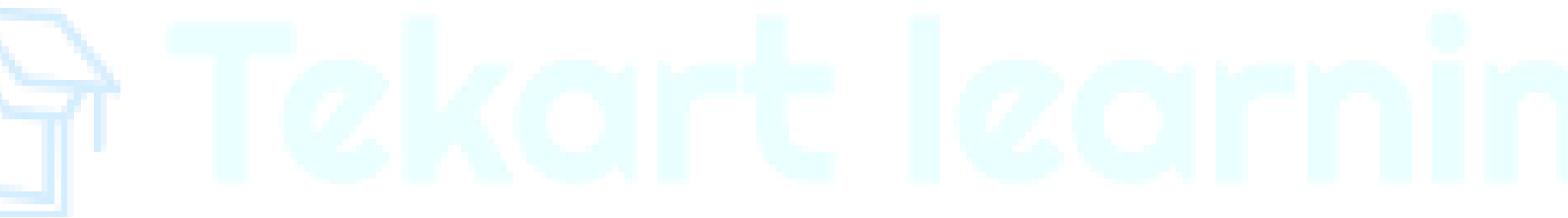
15, 16, 17, 18

2 3 4 5

8, 10, 6, 4,

4 5 6 7

6, 4, 7, 1





Circling the small number

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Examples

② or 3

⑦ or 17

40 or ④

4 or ②

③ or 7

⑦ or 13

⑧ or 81

Activity

6

9

8

4

20 or

14 or

or 9

or 3

or 4

or 1

30

15

Circle the big number

9 or 10

5 or 2

6 or 3

30 and 100

17 or 19

43 and 2

22 and 54

64 and 94

44 and 33

Number names/words

0- zero

1- One

2- two

3- three

4- four

5- five

6- six

7- seven

20- twenty

8- eight

9- nine

10- ten

11- eleven

12- twelve

13- thirteen

14- fourteen

15- fifteen

16- sixteen

17- seventeen

18- eighteen

19- nineteen

Write the following in words

16 ____ 20 ____ 13 ____

0 ____ 11 ____ 19 ____

Matching number names

twelve

one

three

fourteen

four

five

3

14

12

1

5

4

○

○○○○

○○○○○○

○○○

○○○○○○○○○○○○○○○○

○○○○○○○○○○○○○○○○○○

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



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Activity

Write in words

21 _____ 28 _____
27 _____ 29 _____
24 _____ 22 _____
23 _____ 25 _____

Fill in the missing letters

twentyf ____ ____r twen ____yn____n ____

Twenty s____v____n

Number words from 30-39

thirty thirty seven

thirty one thirty eight

Thirty two thirty nine

Thirty three

Thirty four

thirty five

thirty six

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

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

3 ones = ○○○○

○○○○○
○○○ = 7 ones

△△△△
△△△△ = 8 ones

○○○○○
○○○○ = 9 ones

△△△△△ = _____ ones

○○○○ = _____ ones

○○○○○○ = _____ ones

8 ones = ○○○○○○○○

4 ones = ○○○○

2 ones = ○○

1 ones = ○

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






Fill in tens and ones



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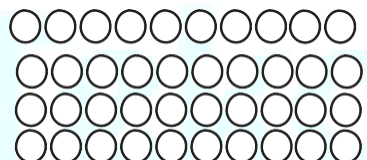
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 1 = ones

 
___ tens ___ ones

 
___ tens ___ ones =

 
___ tens ___ one = 34


= _____ tens



 = _____ tens

2. Draw the tens

2tens=

5tens=

7tens=

4tens=

1tens=

6tens=



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Activity

Fill in the missing tens and ones

5 tens 3 ones = _____

_____ tens _____ ones = 45

80 = _____ tens _____ ones

5 = _____ tens _____ ones

Drawing tens and ones

12 =

20 =

04 =

Activity

Draw bundles

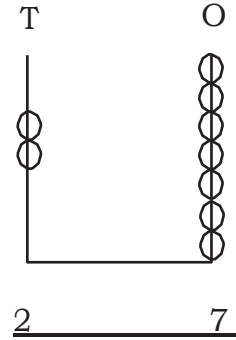
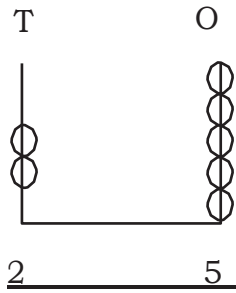
13 =

05 =

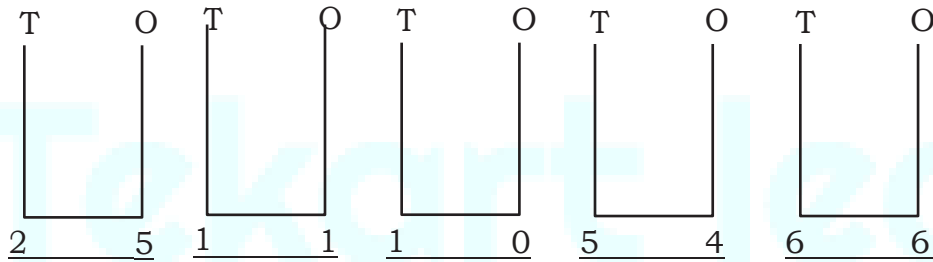
40 =

Showing numbers on the abacus

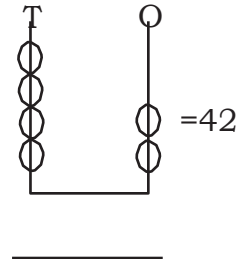
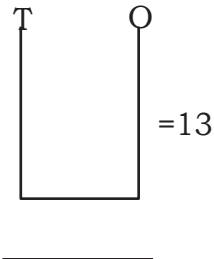
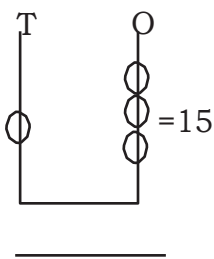
Examples



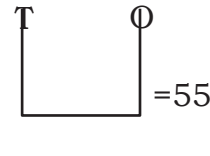
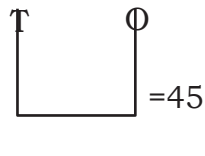
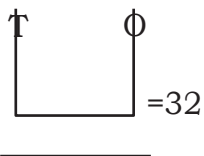
Complete the following



Representing numbers on the abacus

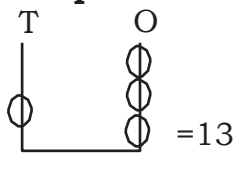


Activity



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 ⑩

Writing place values of the underlined numbers

Examples

3 0 9 4
5 1
8 7
6 3

Exercise

Write the place values of the underlined numbers

Addition of one digit number horizontally

Examples

00 000 000 0 00
2 + 3 = 5 3 + 1 + 2 = 6

00 0000 0000 00 00
2 + 4 = 6 4 + 2 + 2 = 8

00 0
2 + 1 = 3

0000 000
000 00
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

200
+ 200
4

3000
+ 500000
8



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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	T	O	T	O
1	1 0	200	200	3 000	3 000
+	2 00	+	1 4 0000	+	3 000
1	3	3	6	6	6

Activity

T	O
5	5
+	0 1

$$\begin{array}{r} 43 \\ +12 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ +41 \\ \hline \end{array}$$

$$\begin{array}{r} 43 \\ +10 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ +11 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ +22 \\ \hline \end{array}$$

Addition of numbers involving words

Mary has 6 pots. Ivan has 6 pots. 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

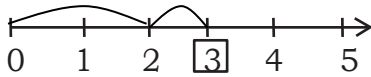
Activity

1. Musa had 8 apples. 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 ate 6 eggs.
 - 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?

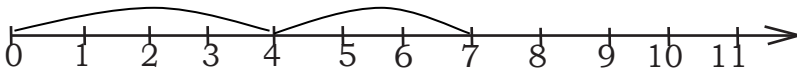
Addition using a number line

Examples

$$2 + 1 = 3$$



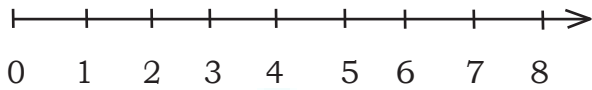
$$4 + 3 = 7$$



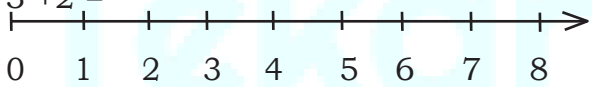
Activity

Add using a number line

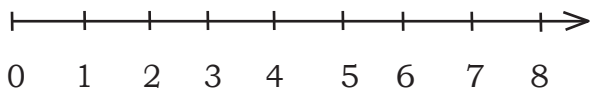
$$2 + 2 =$$



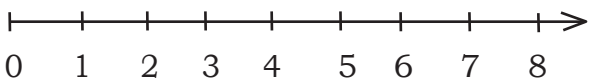
$$3 + 2 =$$



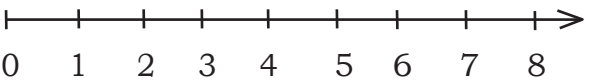
$$3 + 2 + 2 =$$



$$5 + 4 =$$



$$5 + 0 =$$



Subtraction of one digit number horizontally

Examples

a) $4 - 2 = 2$

0000
0000

b) $8 - 3 = 5$

000000
0000

c) $10 - 4 = 6$

0000
00

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 vertically.

Examples

8 000000
- 3 00
5

000000
9 000
- 0
0

7
- 4
3

9
- 9
0

Activity

4
- 4
□

5
- 3
□

9
- 5
□

4
- 3
□



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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

$$\begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 5 \\ - 1 \quad 2 \\ \hline 2 \quad 3 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 8 \\ - \quad 8 \\ \hline 2 \quad 0 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 8 \quad 9 \\ - 3 \quad 6 \\ \hline 5 \quad 3 \end{array}$$

Activity

$$\begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 4 \\ - 2 \quad 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 6 \quad 4 \\ - 2 \quad 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 8 \\ - 1 \quad 3 \\ \hline \end{array}$$

Word problems involving subtraction of numbers

Eleven take away four = 7 seven

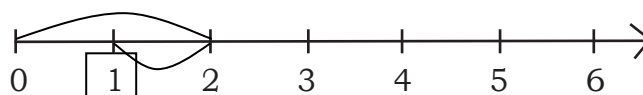
$$11 - 4 = 7$$

Four take away zero equals four

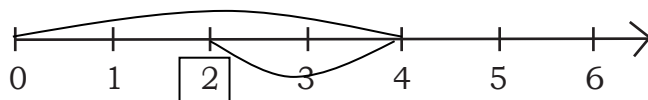
$$4 - 0 = 4$$

Subtraction using a number line

$$2 - 1 = 1$$



$$4 - 2 = 2$$



Activity

Subtract using a number line

$4-2=$

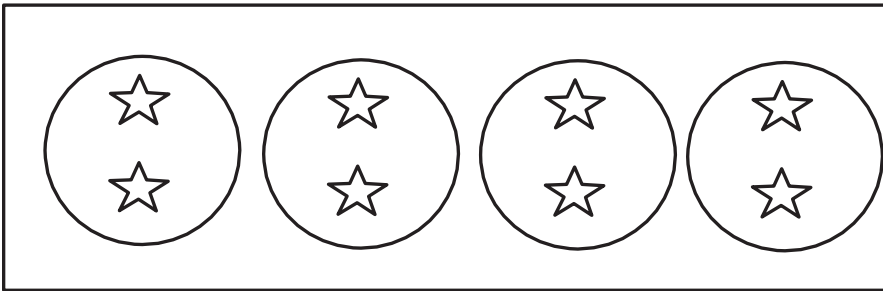
$5-3=$

$6-4=$

$7-3=$

Ringling/forming groups

Examples



4groups

How many groups have you made?

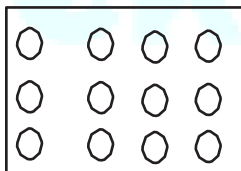
4groups

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?


MULTIPLICATION




Drawing groups

Examples

1. 2groups1=2 

2. 3groups2=6 

3. 2groups2=4 

Activity 3 Groups of 2 4 Groups of 2 5 Groups of 2		6 groups of 2 3 groups of 3 2 groups of 1
<p>Multiplication using repeated addition</p> <p>Example</p> <p>3 two = $2 + 2 + 2 = 6$</p> <p>5 twos $2 + 2 + 2 + 2 + 2 = 10$</p> <p>Multiplication of one digit horizontally</p> <p>$2 \times 1 = 2$ $5 \times 3 = 15$</p> <p> </p> <p>$4 \times 2 = 8$</p> <p></p> <p>Activity</p> <p>Work out the following</p> <p>$3 \times 4 =$ $6 \times 2 =$ $9 \times 3 =$</p> <p>$11 \text{ balls} \times 2 =$ $4 \times 2 =$ $5 \times 6 =$</p>		

<p>Multiplication vertical</p> <p>Examples</p> $\begin{array}{r} 3 \\ \times 2 \\ \hline 6 \end{array}$ <p>Activity</p> <p>Multiply</p> $\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline 18 \end{array}$ $\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 32 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 22 \\ \times 2 \\ \hline \end{array}$
<p>Multiplication of two digits vertically</p> $\begin{array}{r} 32 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 12 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$				

Word problem solving**Examples**

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

$$2 \text{ eyes} \times 3 = 6 \text{ eyes}$$

Word problem involving multiplication of numbers**Examples**

1. One bird has two eyes. How many eyes

$$\text{do 3 birds have? } 2 \text{ eyes} \times 3 = 6 \text{ eyes}$$

2. How many legs do four boys have?



$$4 \times 2 = 8 \text{ legs} \quad = 8 \text{ legs}$$

Activity

1. How many fingers do three grandmothers have?
2. One girl has two ears. How many ears do 5 boys have?
3. Four balls are put in each basket. How many balls will be in 2 baskets?
4. Two beads are put on each string. How many beads will be on 8 strings?
5. Four times two equals

Word problem solving**Examples**

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

$$2 \text{ eyes} \times 3 = 6 \text{ eyes}$$

2. How many legs do four boys have $4 \times 2 = 8 \text{ legs}$

Activity: MK MTC book page 44



THEME: Weather

Sub theme : Number pattern and sequence

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Pattern two

Pattern three

Pattern five

Pattern ten

Ordinal numbers

1 st = first	twelfth
2 nd = second	thirtieth
3 rd = third	ninth
4 th = fourth	twentieth



Activity

Fill in missing tens

10,20,30,__,__,60

30,__,__,60,__,80

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

22,33,__,__,

Ordinary numbers

1 - 1st

2 - 2nd

New MKPr. Maths pupils book page 102-103

3 - 3rd

4 - 4th

5 - 5th

6 - 6th

7 - 7th

8 - 8th

9 - 9th

10 - 10th

Activity

Match correctly

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

Write in words

11th

7th

14th

9th

25th

Writing ordinal number in words

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

Fill in the missing letters

fi__st sixt__ n

S __co __ d

Th__ __d

Write in words

2nd

1st

4th

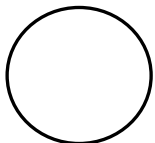
10th

9th

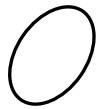
3rd

Identifying shapes

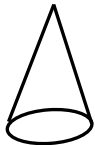
Examples



Circle



Oval



Cone



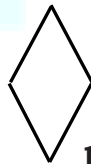
Cylinder



rectangle



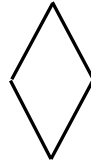
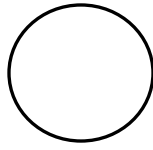
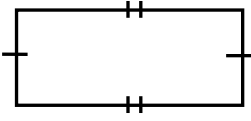
square



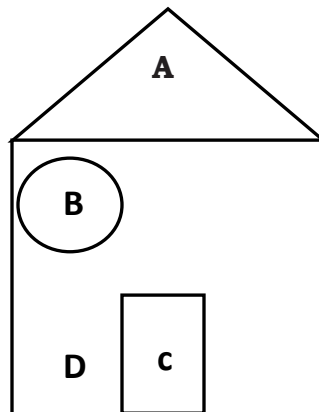
kite

Activity

Name the following



Name the shapes



A. triangle

B. Circle

C _____

D _____

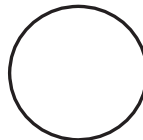
Reading and matching shapes
Example

Square

Circle

Cone

















Kite



GRAPHS

Pictorial graph

Five children were asked to pick flowers

Tom	 
Ali	
Tina	     
Paul	   
Peter	  

- Who picked more flowers?
- _____ and _____ have the same number of flowers.
- Who has two flowers?
- Who picked few flowers?
- How many flowers do they have altogether?

Drawing picto graphs

Four girls were given books as follows.

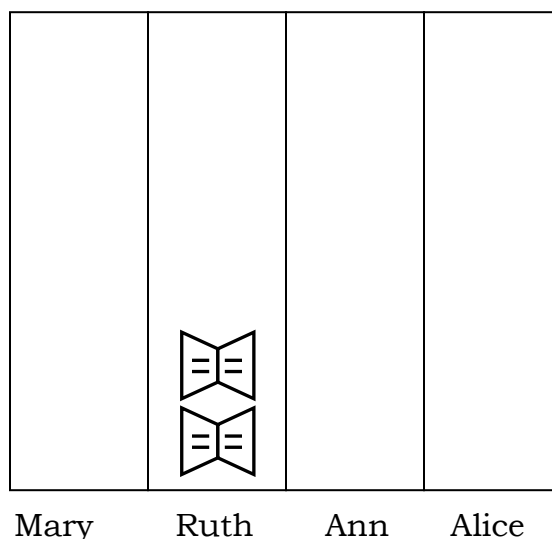
Mary got 4 books

Ruth got 5 books

Ann got 2 books

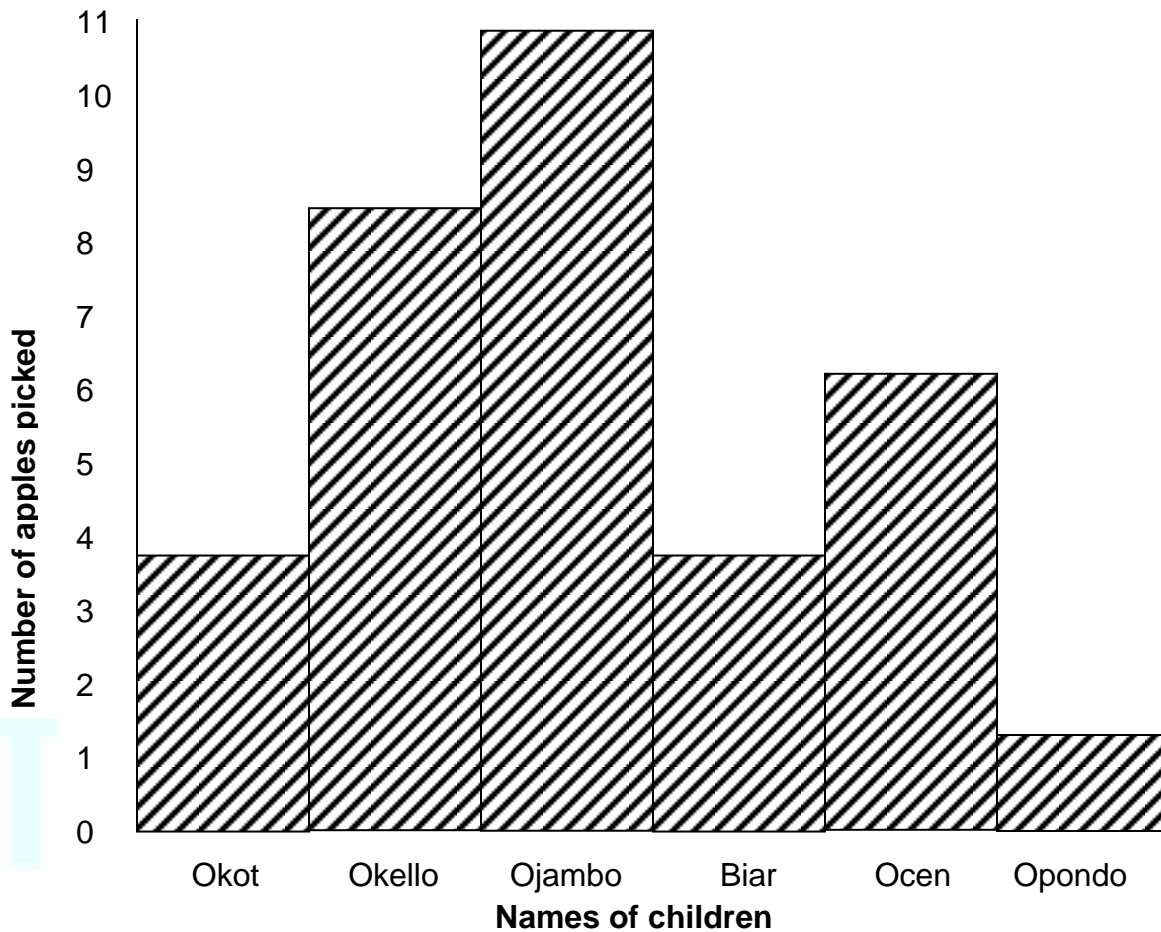
Alice got 3 books

Complete the picture graph below.



BAR GRAPH

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

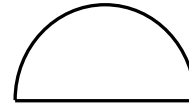
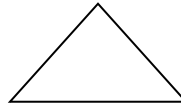
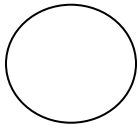


- How many children got apples?
- Who picked the biggest number of apples?
- Who picked the same number of apples?
- Who picked the smallest number of apples?
- _____ picked seven apples.
- Who picked six apples?

FRACTIONS

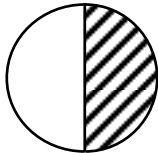
Definition of a fraction and examples.

A fraction is a part of a whole.

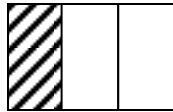


Examples

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



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

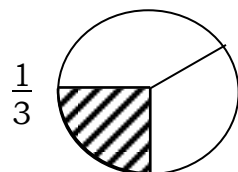
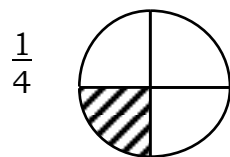


$\frac{1}{4}$ a quarter

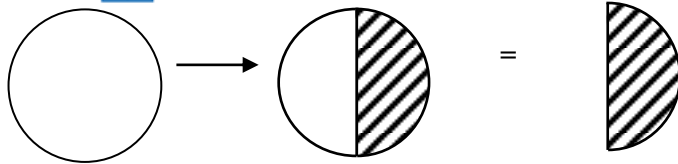


Exercise

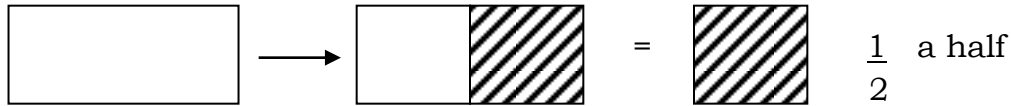
Name the fractions



Drawing and shading a half.

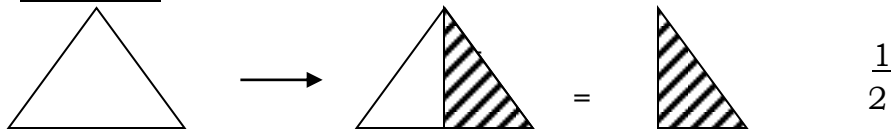


$\frac{1}{2}$ a half

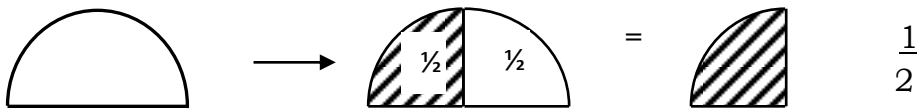


$\frac{1}{2}$ a half

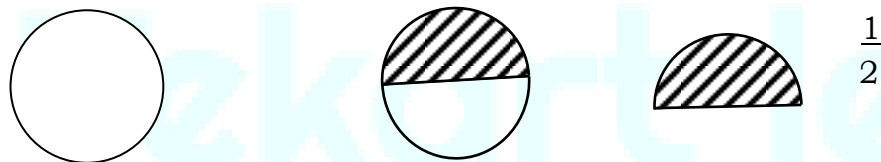
Exercise



$\frac{1}{2}$

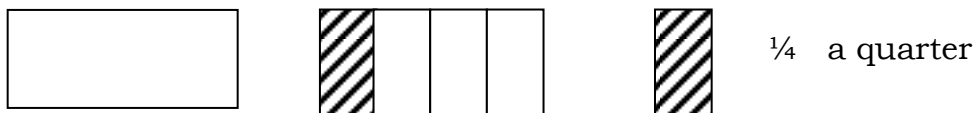


$\frac{1}{2}$

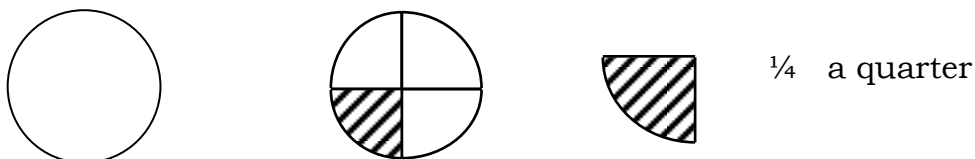


$\frac{1}{2}$

Drawing and shading a quarter

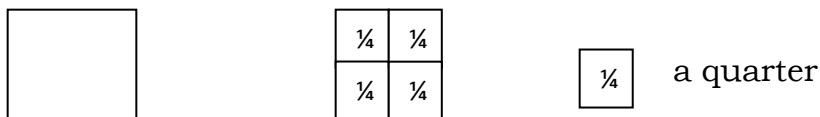


$\frac{1}{4}$ a quarter

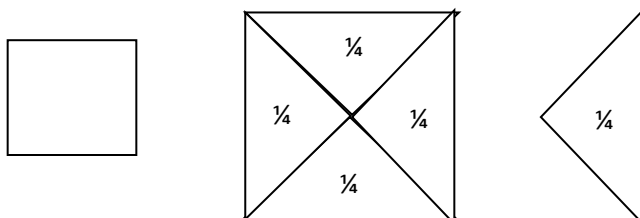


$\frac{1}{4}$ a quarter

Exercise



a quarter

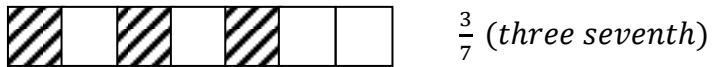
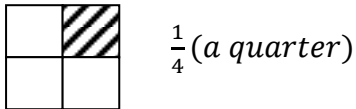
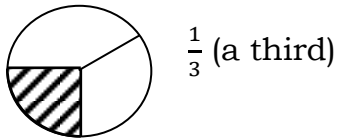
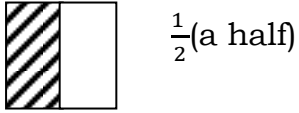


$\frac{1}{4}$

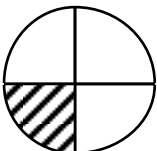
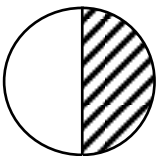
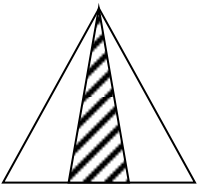
1 → Numerator

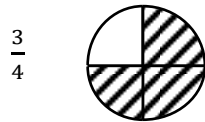
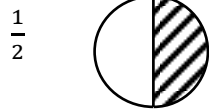
2 → Denominator

Name the shaded parts



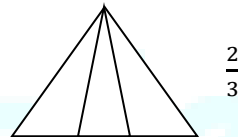
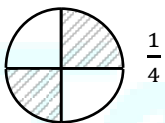
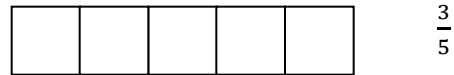
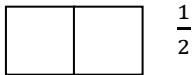
Exercise





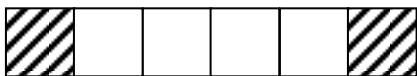
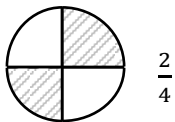
Exercise

Shade the fractions



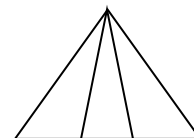
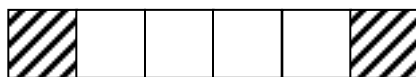
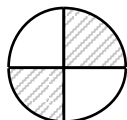
Shaded fractions

Write the shaded fractions



Unshaded fractions

Write the unshaded fractions



Addition of fractions

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

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

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

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

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 $\frac{1}{2}$

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

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

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

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

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

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

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

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 $\frac{6}{9}$

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

$$\begin{array}{r} \text{Sh. } 30 \\ + \text{sh. } 40 \\ \hline \text{sh. } 70 \end{array}$$

$$\begin{array}{r} \text{Sh. } 20 \\ + \text{Sh. } 80 \\ \hline \text{Sh. } 100 \end{array}$$

$$\begin{array}{r} \text{Sh. } 250 \\ + \text{Sh. } 300 \\ \hline \text{Sh. } 550 \end{array}$$

$$\begin{array}{r} \text{sh. } 400 \\ + \text{sh. } 300 \\ \hline \text{sh. } 700 \end{array}$$

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

- Shs. 200 plus Shs. 400 gives ____
- A pencil costs Shs. 100. A ruler costs Shs. 500
How much money do the two items cost altogether?
- 400/= plus 300/= equals
- 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

$$\begin{array}{r} \text{Sh. } 500 \\ - \text{Sh. } 200 \\ \hline \text{Sh. } 300 \end{array}$$

$$\begin{array}{r} \text{Sh. } 450 \\ - \text{Sh. } 250 \\ \hline \text{Sh. } 200 \end{array}$$

$$\begin{array}{r} \text{Sh. } 40 \\ - \text{Sh. } 10 \\ \hline \text{Sh. } 30 \end{array}$$

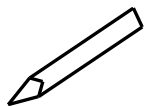
800/= minus 100/= equals ____

700/= minus 200/= equals ____

700/= minus 200/= equals ____

Ref MK pupils book 1 page 130

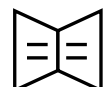
SHOPPING



Shs.50



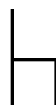
Shs.500



Shs.500



Shs.100



Shs.700

- How much is a book?
- Which item costs shs.100/=
- What is the cheapest item?
- How much is a cup and a ball altogether?
- Which items cost the same amount?
- 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

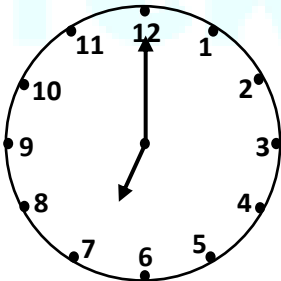
There are two main hands on a clock face

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

There are two systems of time

- 12 hour clock
- 24 hour clock

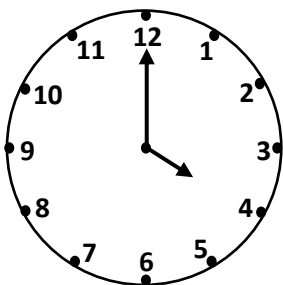
Telling time in full hours (exact time)



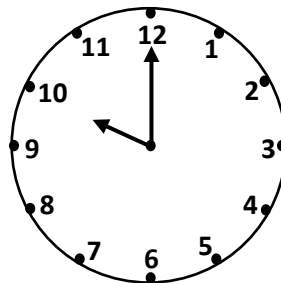
It is 7 o'clock

Activity

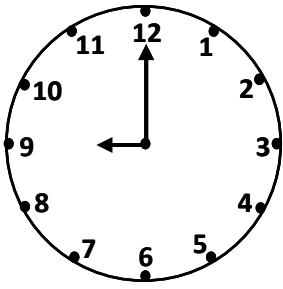
What is the time?



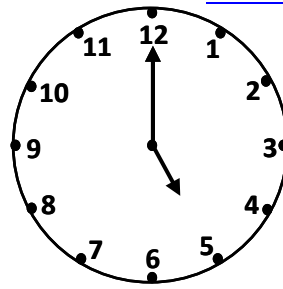
It is ____ o'clock



It is ____ o'clock

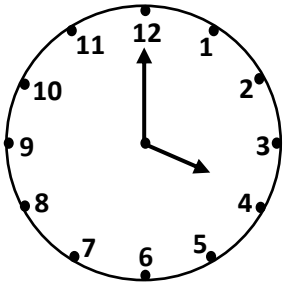


It is ____ o'clock

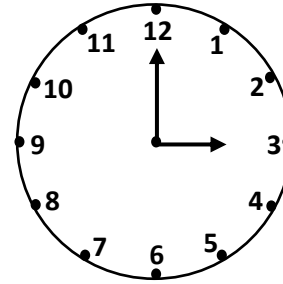


It is ____ o'clock

Showing time in full hours

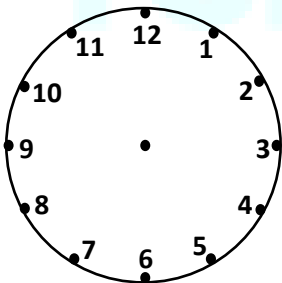


It is **4** o'clock

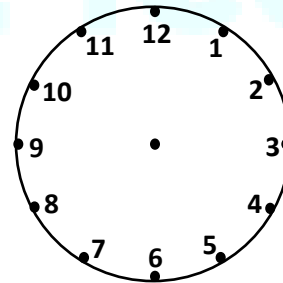


It is **3** o'clock

Activity

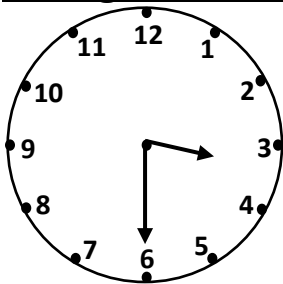


It is 6 o'clock

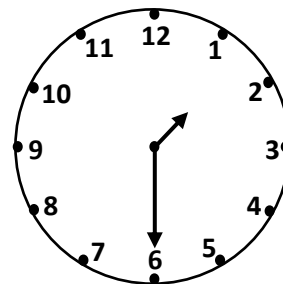


It is 8 o'clock

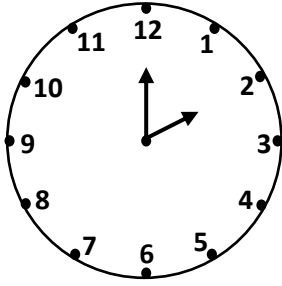
Telling time in half hours



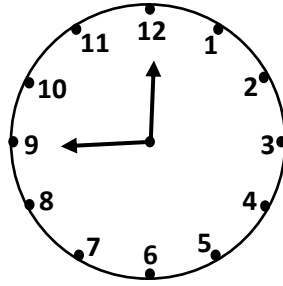
It is a half past 3



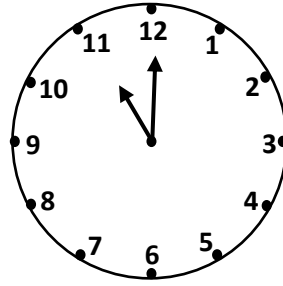
It is a half past 1



It is 2 o'clock.



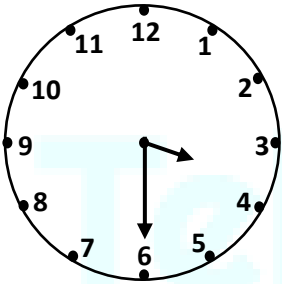
It is 9 o'clock.



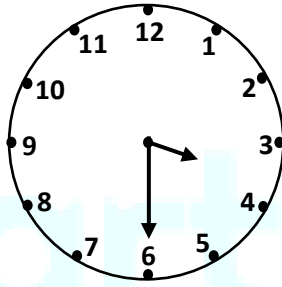
It is 12 o'clock.

Activity

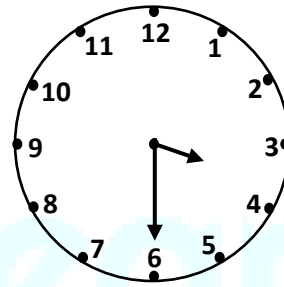
Tell the time



It is _____

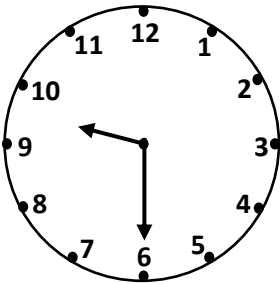


It is _____

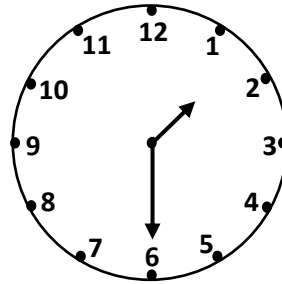


It is _____

Telling time using a half past.

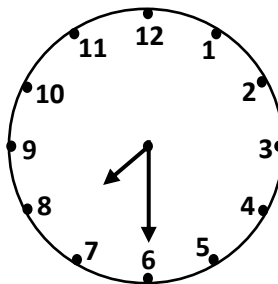
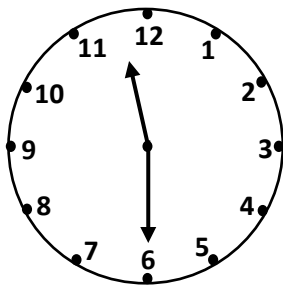


It is half past 9



It is a half past 1.

Activity



Days of the week

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

1. How many days make a week?
2. Write down the first three days of the week.
3. What is the third months of thee year?
4. Fill in the missing letters.
a) S-turday b) Th – sday
5. Write in full.
Jan. ____ Feb. ____ Aug. ____
Dec. ____ Oct. ____ Nov. ____

Months of the year

There are 12 months in a year.

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

Activity

1. Fill in the missing letters
Sep ____ mber J – ne
Oct ____ ____ ber M ____ ____ ch



2. Write down the first four months of the year.

3. Which month comes between march and may?

4. Which month comes after june?

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)

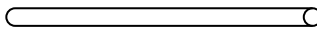
Things used to measure length

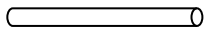
- Ruler
- Tape measure
- Handspans
- Armspans
- Strides
- A stick

Things measured in length

- Chalkboard
- Desks
- Tables
- walls
- Desk
- Paper
- Rope
- Books
- Doors
- Strings
- Books
- Walls

Use longer or shorter

 Stick R

 Stick Z

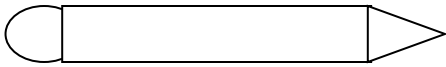
Stick R is _____ than stick T?

Stick T is _____ than sick R

Pencil B



Pencil C



Which pencil is short?

Which pencil is long?

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
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

d)

m	m	m	m
7	3	100	30
+ 8	+ 4	+ 300	+ 10
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

e)

15 cm	55 cm
+ 24 cm	+ 32 cm
<hr/>	<hr/>
<hr/>	<hr/>

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 cloth is 4 metres long. Annet's cloth 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

$$5 \text{ m} - 4 \text{ m} = 1 \text{ m}$$

Activity

$$\begin{array}{r} 8 \text{ m} \\ - 3 \text{ m} \\ \hline \end{array}$$

$$\begin{array}{r} 6 \text{ cm} \\ - 4 \text{ cm} \\ \hline \end{array}$$

$$\begin{array}{r} 14 \text{ m} \\ - 4 \text{ m} \\ \hline \end{array}$$

$$\begin{array}{r} 70 \text{ cm} \\ - 30 \text{ cm} \\ \hline \end{array}$$

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

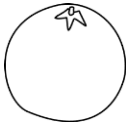
Weight is measured in kilograms (kg)

Things used to measure weight

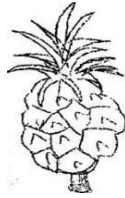
- Sea saw
- Beam balance
- Spring balance
- A set of scale balance

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

Comparing weight using heavier and lighter



an orange

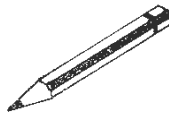


a pineapple

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

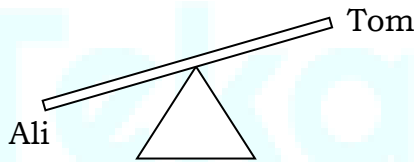


a cup

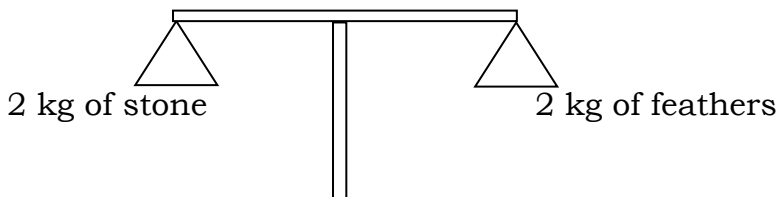


a pencil

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



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



Which object is lighter?

Addition of weight in kg and g

- 1) $4\text{kg} + 3\text{kg} = \underline{\hspace{2cm}} \text{ kg}$
- 2) $2\text{kg} + 1\text{kg} = \underline{\hspace{2cm}} \text{ kg}$
- 3) $10\text{kg} + 2\text{kg} = \underline{\hspace{2cm}} \text{ kg}$
- 4) $4\text{g} + 3\text{g} = \underline{\hspace{2cm}} \text{ g}$

$$\begin{array}{r} 40\text{kg} \\ + 20\text{kg} \\ \hline \end{array}$$

$$\begin{array}{r} 4\text{kg} \\ + 2\text{kg} \\ \hline \end{array}$$

$$\begin{array}{r} 80\text{kg} \\ + 40\text{kg} \\ \hline \end{array}$$

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

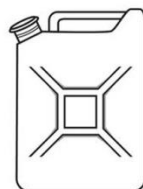
Things used to measure liquids

- Jerrycans
- Tanks
- Bottles
- Cups
- Glasses
- Bucket
- Basin

Comparing capacity of different containers

1.

a cup

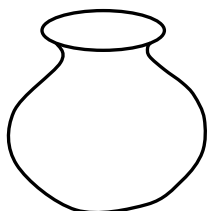


a jerrycan

a) Which container holds more liquid

b) Which container holds less liquid

2.



Pot W



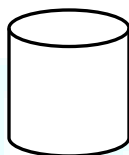
Pot R

a) Which pot holds more liquids?

b) Which pot holds less liquid?

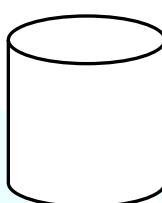
3.

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) $3L + 4L = \underline{\hspace{2cm}}$ litres

b) $1L + 3L = \underline{\hspace{2cm}}$

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

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

Word problems involving addition of capacity in litres

1. Five litres plus 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) $4\text{L} - 2\text{L} = \underline{\hspace{2cm}} \text{L}$

b)
$$\begin{array}{r} 8 \text{ litres} \\ - 3 \text{ litres} \\ \hline \end{array}$$

c)
$$\begin{array}{r} 25 \text{ litres} \\ - 5 \text{ litres} \\ \hline \end{array}$$

d)
$$\begin{array}{r} 47 \text{ L} \\ - 12 \text{ L} \\ \hline \end{array}$$

e) $10 \text{ litres} - 6 \text{ litres} = \underline{\hspace{2cm}} \text{ litres}$

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) $4 + \square = 5$

b) $\square + 6 = 10$

Word problems \square plus five equals eight**Find missing numbers in subtraction**

$6 - \square = 2$

$\square - 3 = 7$

Word problems involving finding missing numbers in subtraction.Seven take away \square equals three \square minus two equals six