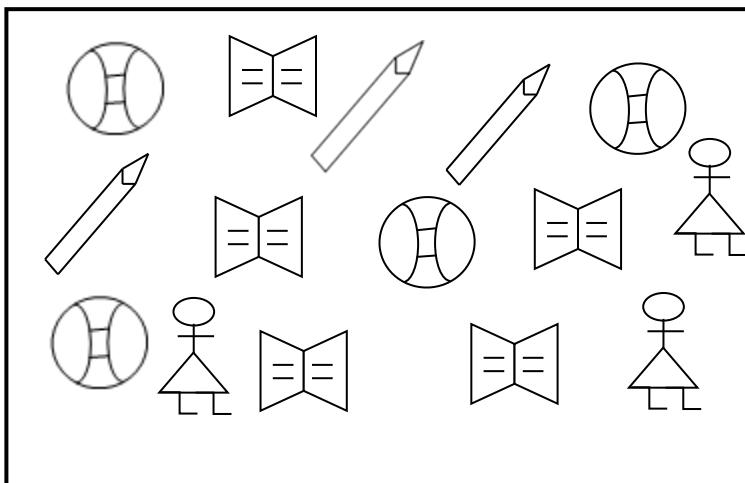


P.1 Mathematics Lesson Notes Term I – III

LESSON 1: Sorting real objects

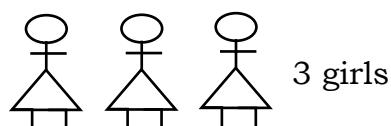
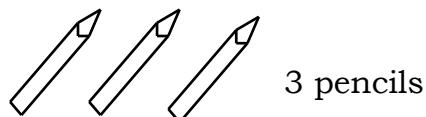


4 balls

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.

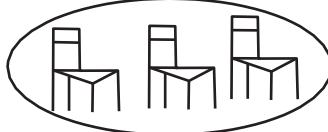
Things found in a set are called members/elements.

Naming sets**Examples**

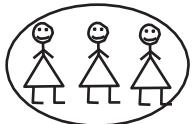
A set of balls



A set of tins



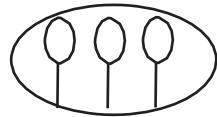
A set of chairs

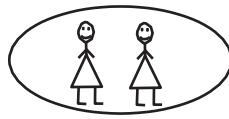
Activity**Name these sets**

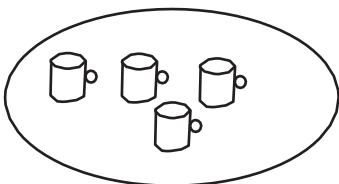










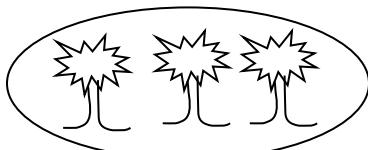




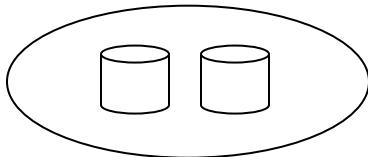


Read and draw sets

A set of 3 trees.



A set of 2 tins.

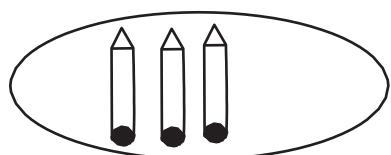
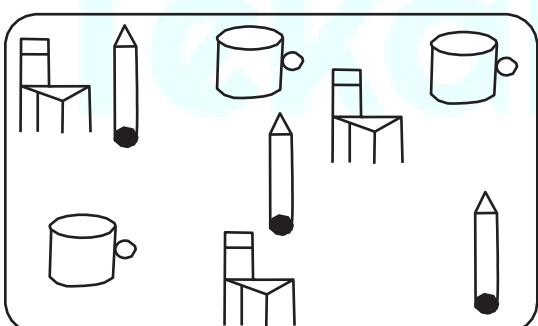


Activity

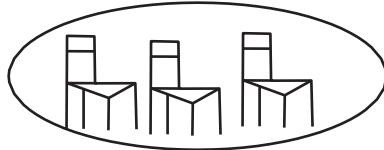
Draw these sets

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

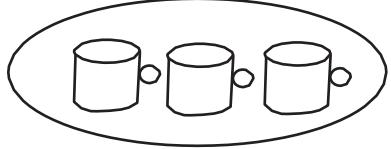
Forming and drawing sets



A set of pencils



A set of chairs



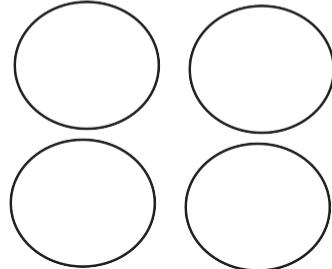
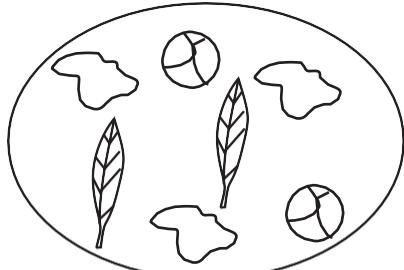
A set of cups

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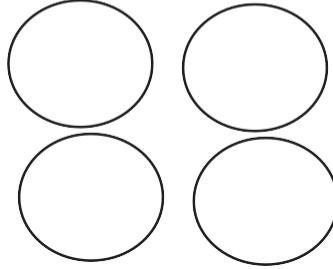
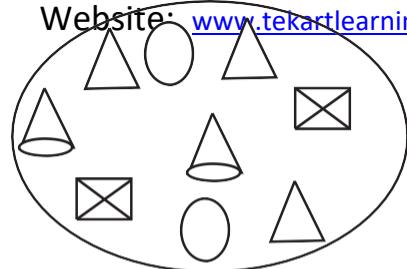
1. Form sets



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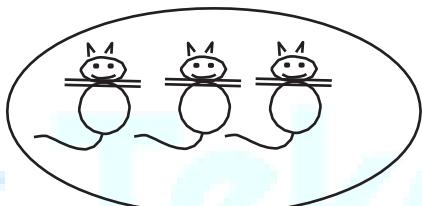
Email: tekule@tekartlearning.com

Website: www.tekartlearning.com

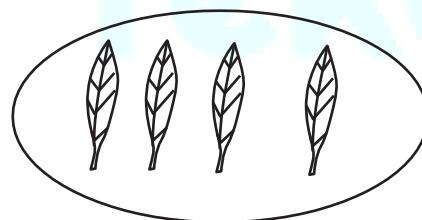


Counting members in a set

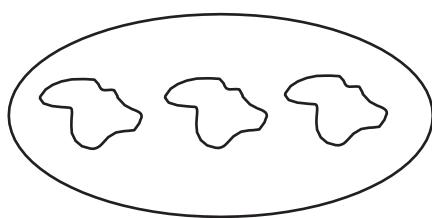
Examples



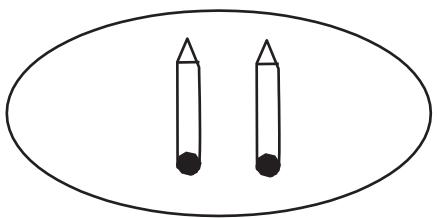
A set of three cats



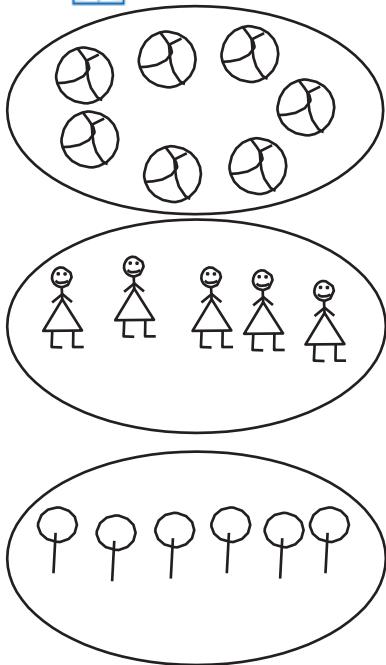
A set of 4 leaves



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

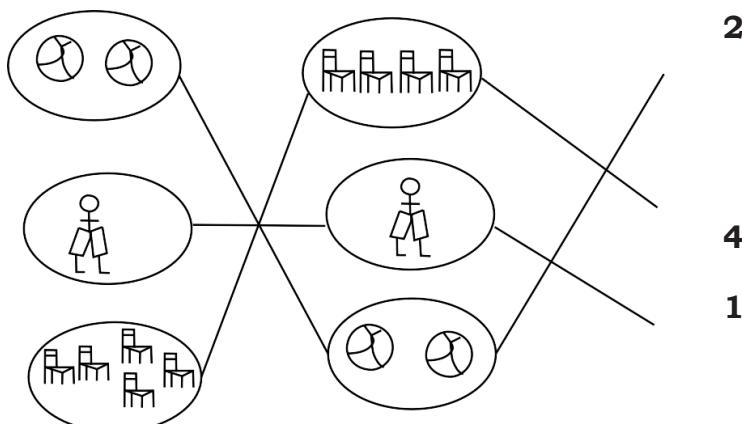
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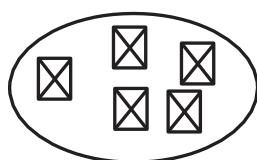
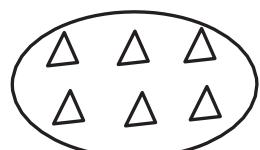
Activity

a) A set of snakes with two legs

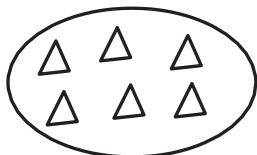
b) A set of men with nine eyes

Matching sets

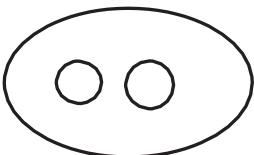
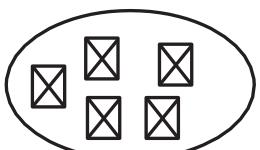




2



6



5

Joining sets



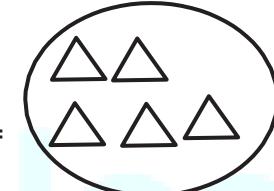
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4

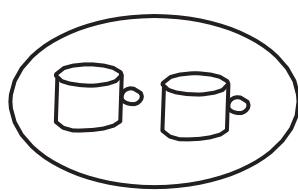
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1

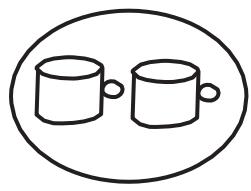


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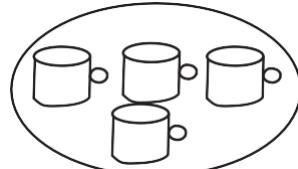
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+



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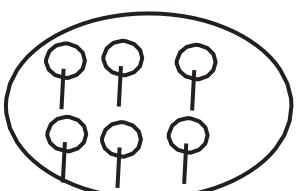


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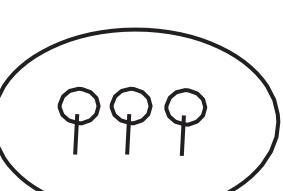
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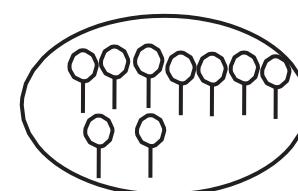
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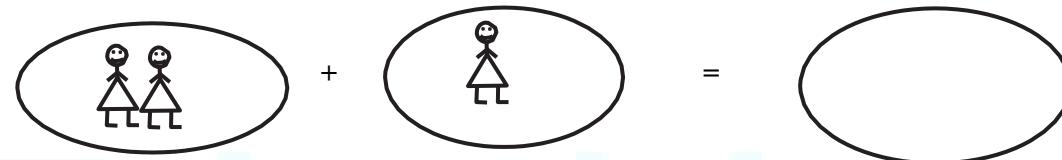
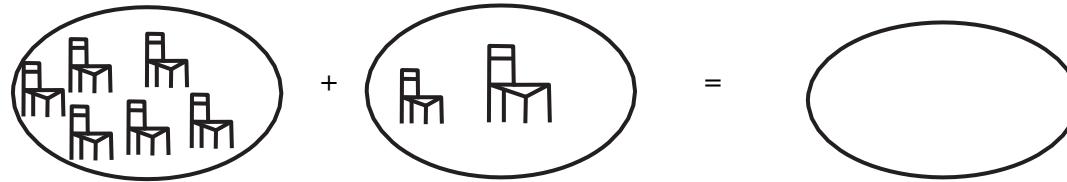
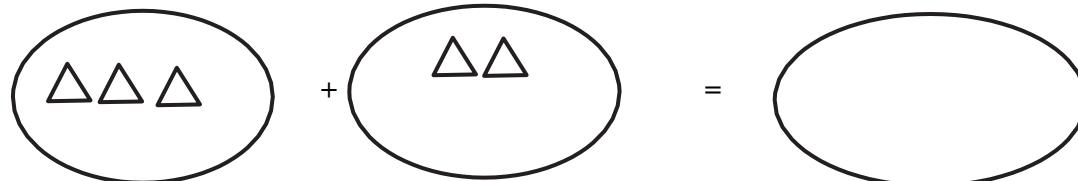
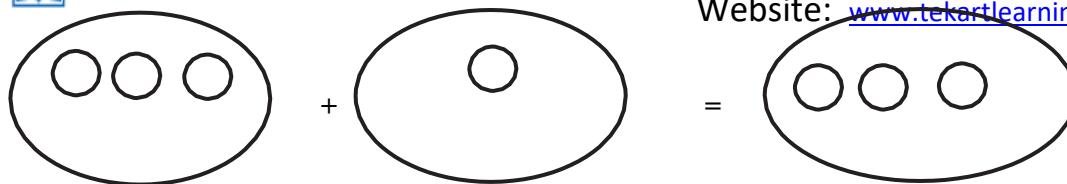
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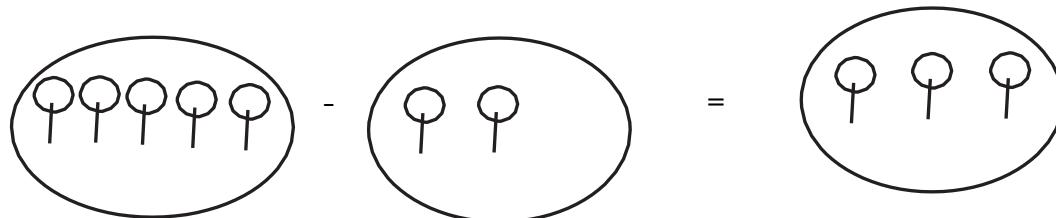
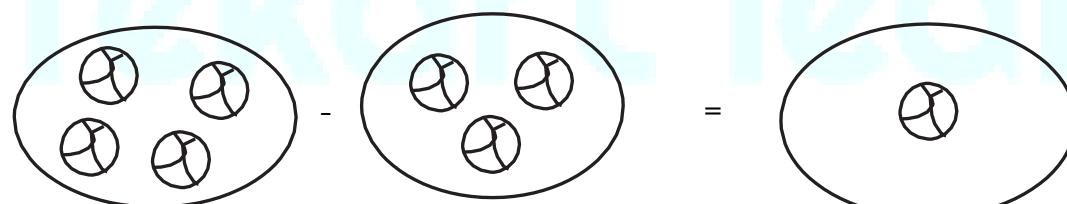
3

=

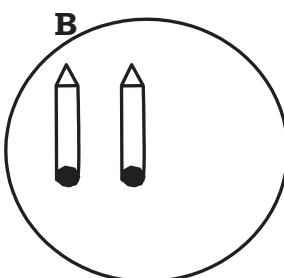
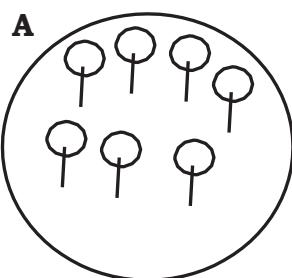
9



Separate the sets



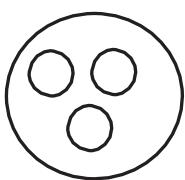
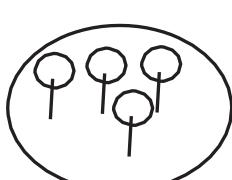
Comparing elements in a set (less or more)



Which set has more members?

Set A has less members

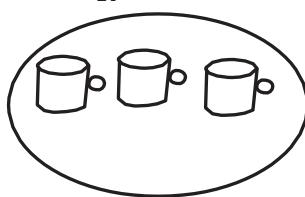
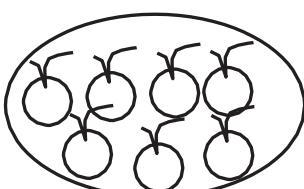
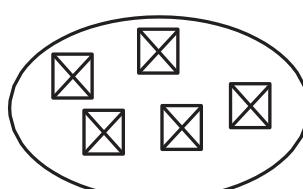
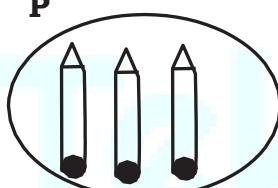
Set B has more members than set A

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 88 90 91 92 93 94 95 96
97 98 99 100

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

**Tekart learning**



Circling the small number

Examples

- ② or 3
- ⑦ or 17
- 40 or ④
- 4 or ②
- ③ or 7
- ⑦ or 13
- ⑧ or 81

Activity

- 6 or 9
- 9 or 3
- 8 or 4
- 4 or 1
- 20 or 30
- 14 or 15

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Circle the big number

- 9 or 10
- 5 or 2
- 6 or 3
- 30 and 100
- 17 or 19
- 44 and 33

Number names/words

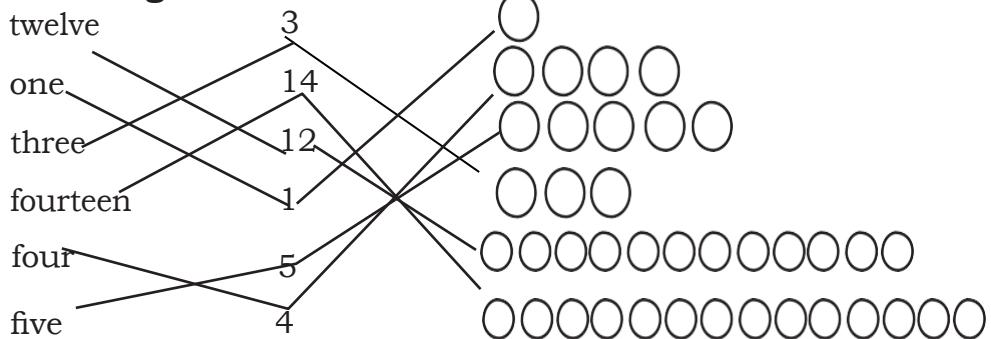
0- zero	8- eight	14- fourteen
1- One	9- nine	15- fifteen
2- two	10- ten	16- sixteen
3- three	11- eleven	17- seventeen
4- four	12- twelve	18- eighteen
5- five	13- thirteen	19- nineteen
6- six		
7- seven		
20-twenty		

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-fifty	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 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

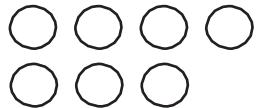


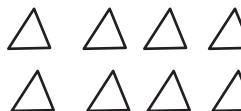
= ones

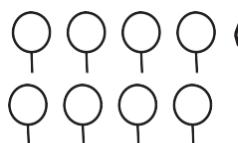


= _____ ones

Drawing ones

 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

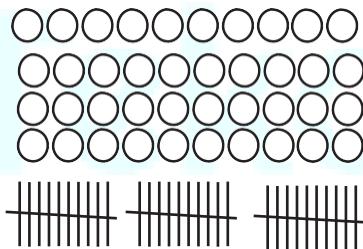
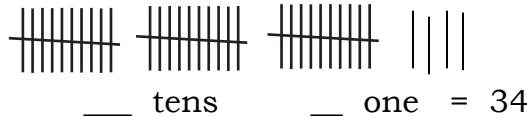
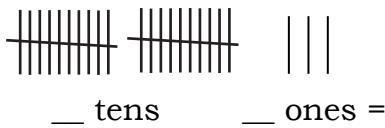
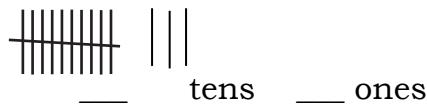
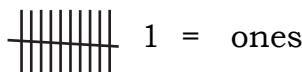
 = _____ tens

Fill in tens and ones

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2. Draw the tens

2tens=

5tens=

7tens=

4tens=

1tens=

6tens=

Activity

Fill in the missing tens and ones

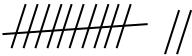
5 tens 3 ones = _____

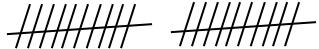
____ tens ____ ones = 45

80 = ____ tens ____ ones

5 = ____ tens ____ ones

Drawing tens and ones

12 = 

20 = 

04 = 

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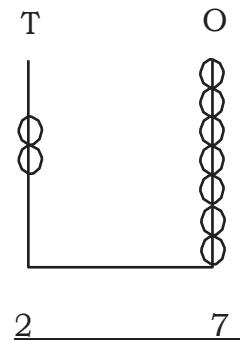
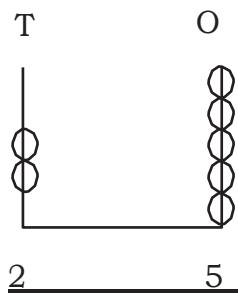
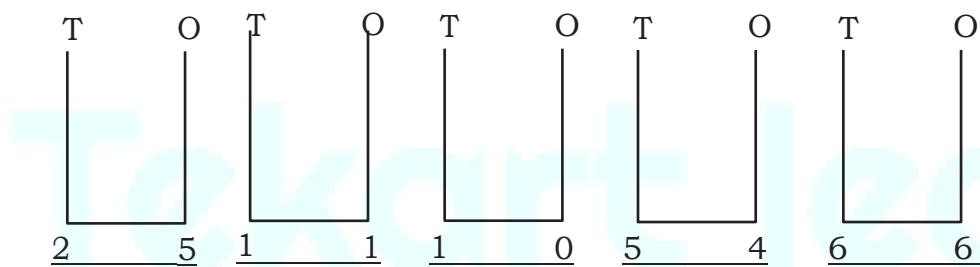
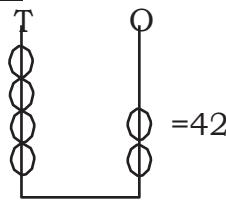
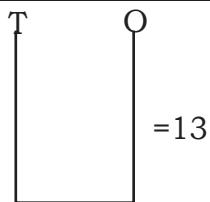
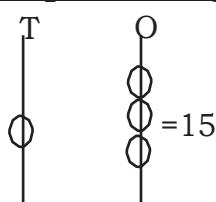
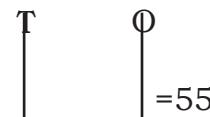
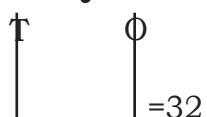
Activity

Draw bundles

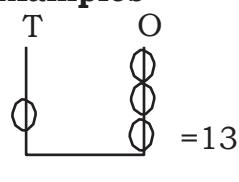
13 =

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 ①

Writing place values of the underlined numbers

Examples

$$\begin{array}{r}
 3 \quad \underline{0} \quad 9 \ \underline{4} \\
 \underline{5} \quad 1 \\
 8 \quad \underline{7} \\
 6 \quad 3
 \end{array}$$
Exercise

Write the place values of the underlined numbers

$$\begin{array}{r}
 00 \quad 000 \\
 2 \quad + \quad 3 \quad = \quad \underline{5}
 \end{array}$$

$$\begin{array}{r}
 000 \quad 0 \quad 00 \\
 3 \quad + 1 \quad + \quad 2 \quad = \quad \underline{6}
 \end{array}$$

$$\begin{array}{r}
 00 \quad 0000 \\
 2 \quad + \quad 4 \quad = \quad \underline{6}
 \end{array}$$

$$\begin{array}{r}
 0000 \quad 00 \quad 00 \\
 4 \quad + \quad 2 \quad + \quad 2 \quad = \quad \underline{8}
 \end{array}$$

$$\begin{array}{r}
 00 \quad 0 \\
 2 \quad + \quad 1 \quad = \quad \underline{3}
 \end{array}$$

$$\begin{array}{r}
 0000 \quad 000 \\
 000 \quad 00 \\
 7 \quad + \quad 5 \quad = \quad \underline{12}
 \end{array}$$
Activity

$$\begin{array}{ll}
 3+1= & 3+3= \\
 9+7= & 4+2= \\
 5+5= & 2+2= \\
 3+2= & 5+6= \\
 7+7= & 8+0=
 \end{array}$$

Addition of one digit vertically

Examples

$$\begin{array}{r}
 200 \\
 + 200 \\
 \hline
 4
 \end{array}$$

$$\begin{array}{r}
 3000 \\
 + 500000 \\
 \hline
 8
 \end{array}$$

Activity

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$$\begin{array}{r}
 5 \text{ balls} \\
 + 1 \text{ ball} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 6 \\
 + 3 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 6 \\
 + 2 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 3 \\
 + 6 \\
 \hline
 \end{array}$$

Addition involving words
Examples

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

Activity

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

Addition of two digit number vertically
Example

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 1 \quad 1 \quad 0 \\
 + \quad 2 \quad 0 \quad 0 \\
 \hline
 1 \quad 3
 \end{array}$$

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 2 \quad 0 \quad 0 \\
 + \quad 1 \\
 \hline
 3
 \end{array}$$

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 3 \quad 0 \quad 0 \quad 0 \\
 + \quad 3 \quad 0 \quad 0 \quad 0 \\
 \hline
 6
 \end{array}$$

Activity

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 5 \quad 5 \\
 + \quad 0 \quad 1 \\
 \hline
 \end{array}$$

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

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

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 4 \quad 3 \\
 +1 \quad 0 \\
 \hline
 \end{array}$$

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$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 1 \quad 1 \\
 +1 \quad 1 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 2 \quad 6 \\
 +2 \quad 2 \\
 \hline
 \end{array}$$

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

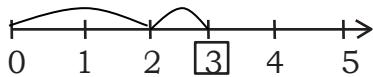
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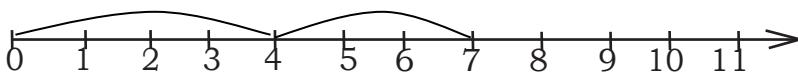
Website: www.tekartlearning.com

Examples

$$2 + 1 = 3$$



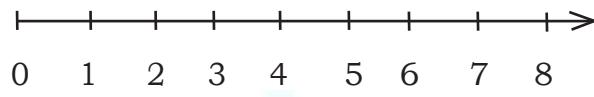
$$4 + 3 = 7$$



Activity

Add using a number line

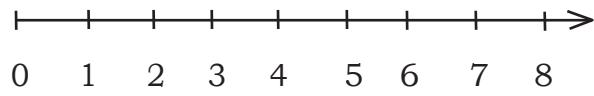
$$2 + 2 =$$



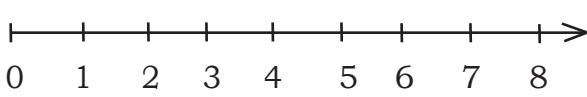
$$3 + 2 =$$



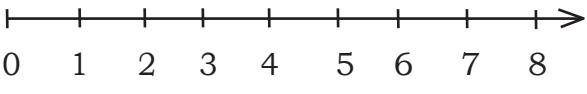
$$3 + 2 + 2 =$$



$$5 + 4 =$$



$$5 + 0 =$$



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

$$\begin{array}{r} 8 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \\ - \ 3 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 0 \ 0 \ 0 \ 0 \ 0 \ 0 \\ - \ 9 \ 0 \ 0 \ 0 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 7 \\ - \ 4 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 9 \\ - \ 9 \\ \hline 0 \end{array}$$

Activity

$$\begin{array}{r} 4 \\ - \ 4 \\ \hline \boxed{ } \end{array}$$

$$\begin{array}{r} 5 \\ - \ 3 \\ \hline \boxed{ } \end{array}$$

$$\begin{array}{r} 9 \\ - \ 5 \\ \hline \boxed{ } \end{array}$$

$$\begin{array}{r} 4 \\ - \ 3 \\ \hline \boxed{ } \end{array}$$

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



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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

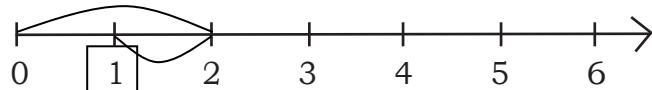
$$11 - 4 = 7$$

Four take away zero equals four

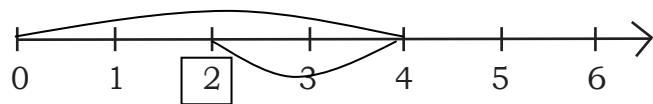
$$4 - 0 = 4$$

Subtraction using a number line

$$2 - 1 = 1$$



$$4 - 2 = 2$$



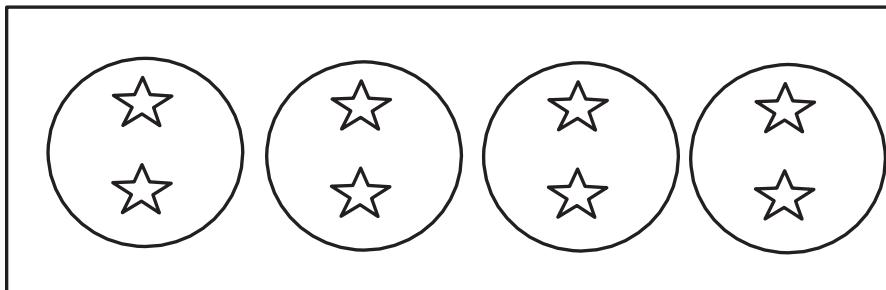
Activity
Subtract using a number line

$4-2=$

$5-3=$

$6-4=$

$7-3=$

Ringing/forming groups
Examples


4groups

How many groups have you made?

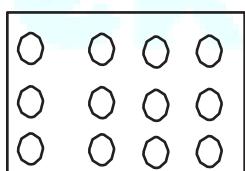
4groups

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?

MULTIPLICATION
Drawing groups
Examples

1. 2groups1=2 

2. 3groups2=6 

3. 2groups2=4 

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Activity		
3 Groups of 2		6 groups of 2
4 Groups of 2		3 groups of 3
5 Groups of 2		2 groups of 1

Multiplication using repeated addition

Example

$$3 \text{ two } = 2 + 2 + 2 = 6$$

$$5 \text{ twos } 2 + 2 + 2 + 2 + 2 = 10$$

Multiplication of one digit horizontally

$$2 \times 1 = 2$$



$$5 \times 3 = 15$$



$$4 \times 2 = 8$$



Activity

Work out the following

$$3 \times 4 = \quad 6 \times 2 = \quad 9 \times 3 =$$

$$11 \text{ balls} \times 2 = \quad 4 \times 2 = \quad 5 \times 6 =$$

Multiplication vertically
Examples

$$\begin{array}{r}
 3 \text{ (3 circles)} \\
 \times 2 \\
 \hline
 6
 \end{array}$$

$$\begin{array}{r}
 6 \text{ (6 circles)} \\
 \times 3 \\
 \hline
 18
 \end{array}$$

Activity
Multiply

$$\begin{array}{r}
 3 \\
 \times 2 \\
 \hline
 \boxed{}
 \end{array}
 \quad
 \begin{array}{r}
 3 \\
 \times 3 \\
 \hline
 \boxed{}
 \end{array}$$

$$\begin{array}{r}
 6 \\
 \times 0 \\
 \hline
 \boxed{}
 \end{array}$$

$$\begin{array}{r}
 1 \ 2 \\
 \times 2 \\
 \hline
 \boxed{}
 \end{array}$$

$$\begin{array}{r}
 3 \ 2 \\
 \times 4 \\
 \hline
 \boxed{}
 \end{array}$$

$$\begin{array}{r}
 2 \ 2 \\
 \times 2 \\
 \hline
 \boxed{}
 \end{array}$$

Multiplication of two digits vertically

$$\begin{array}{r}
 3 \ 2 \\
 \times 2 \\
 \hline
 \boxed{}
 \end{array}$$

$$\begin{array}{r}
 1 \ 2 \\
 \times 2 \\
 \hline
 \boxed{}
 \end{array}$$

$$\begin{array}{r}
 1 \ 0 \\
 \times 4 \\
 \hline
 \boxed{}
 \end{array}$$



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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?



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

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

1st = first twelfth

2nd = second thirtieth

3rd = third ninth

4th = fourth twentieth



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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

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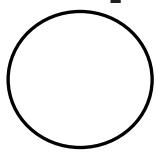
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Fill in the missing letters

fi__st sixt__ n

S __co __ d

Th__ __d

Write in words2nd 1st 4th10th 9th 3rd**Identifying shapes****Examples**

Circle



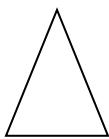
Oval



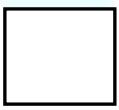
Cone



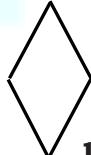
Cylinder



rectangle



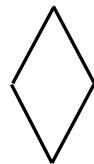
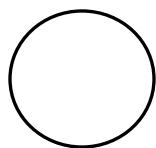
square



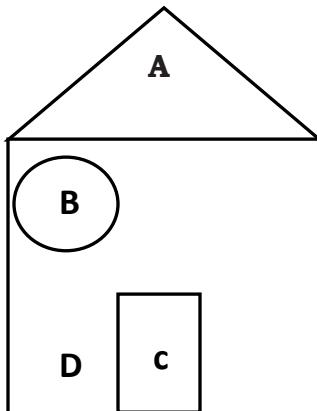
kite

Activity

Name the following



Name the shapes



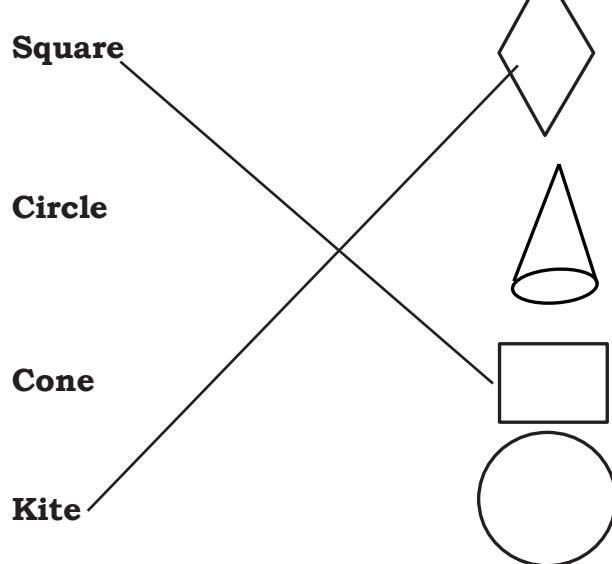
A. triangle

B. Circle

C _____

D _____

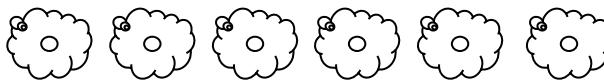
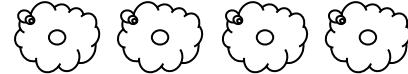
Reading and matching shapes
Example



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.

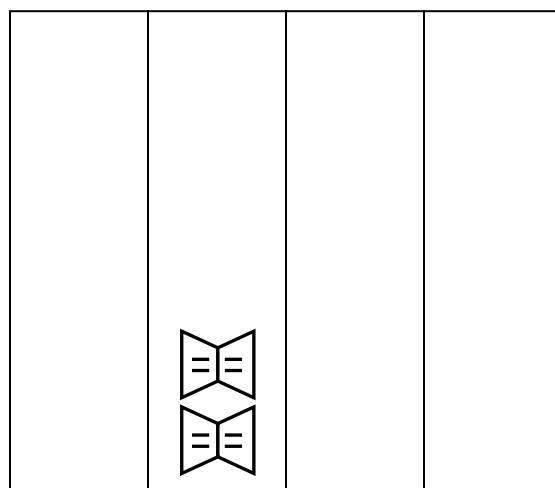
Mary got 4 books

Ruth got 5 books

Ann got 2 books

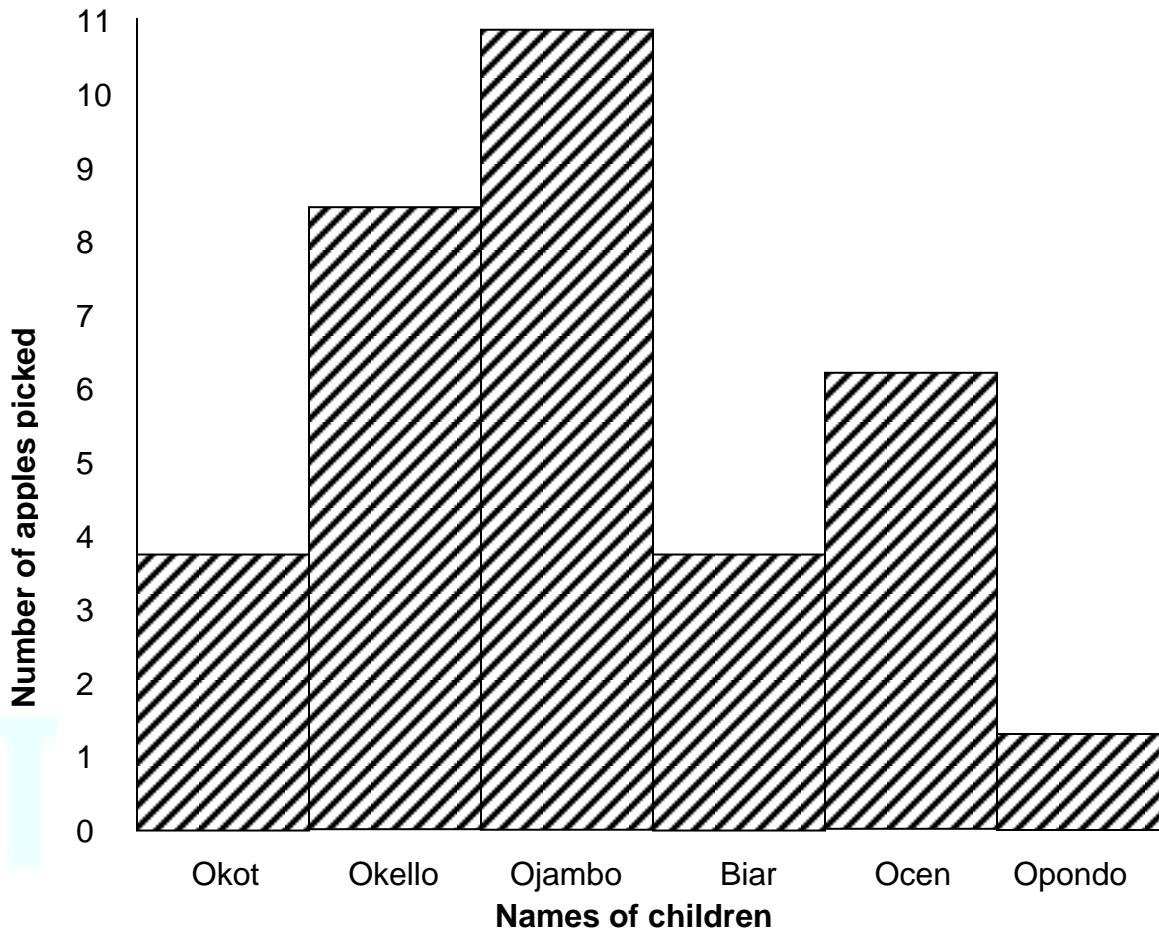
Alice got 3 books

Complete the picture graph below.



BAR GRAPH

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

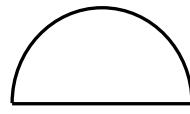
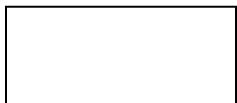
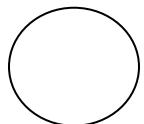


- How many children got apples?
- Who picked the biggest number of apples?
- Who picked the same number of apples?
- Who picked the smallest number of apples?
- _____ picked seven apples.
- Who picked six apples?

FRACTIONS

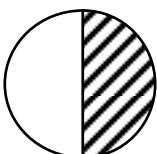
Definition of a fraction and examples.

A fraction is a part of a whole.



Examples

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



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

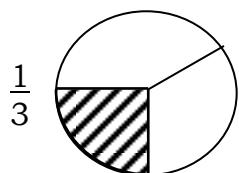
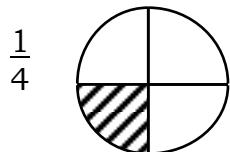


$\frac{1}{4}$ a quarter

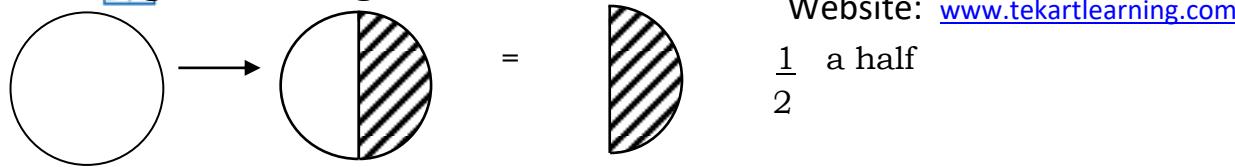


Exercise

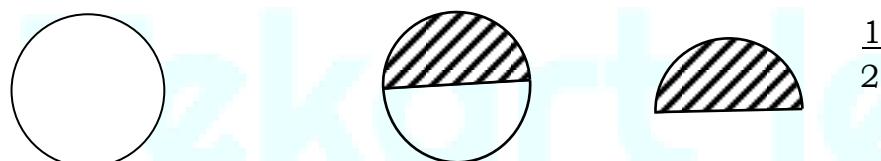
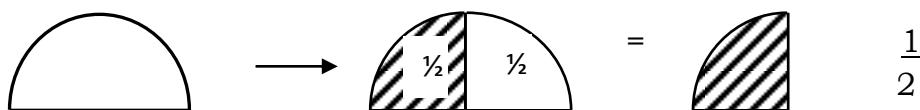
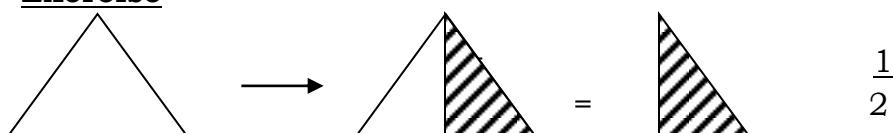
Name the fractions



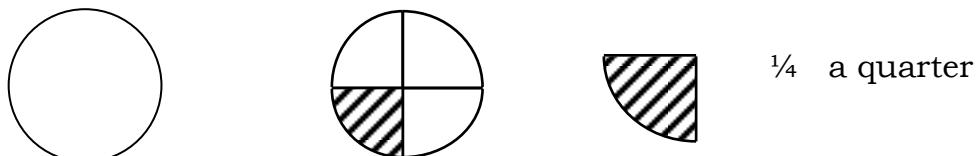
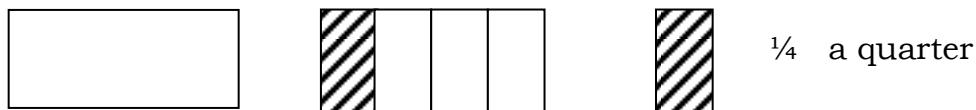
Drawing and shading a half.



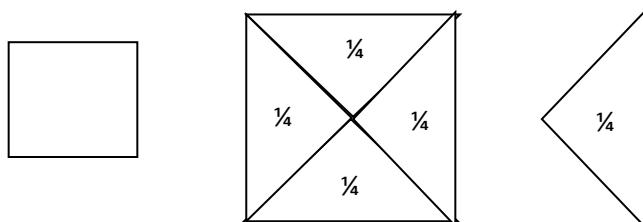
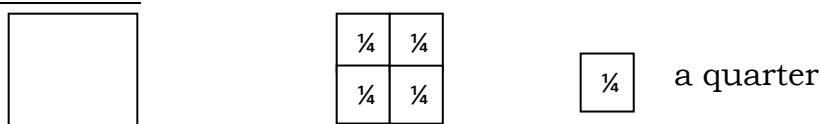
Exercise



Drawing and shading a quarter



Exercise



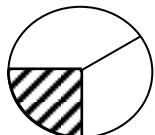
1 → Numerator

2 → Denominator

Name the shaded parts



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



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

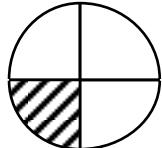
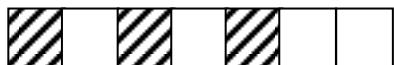
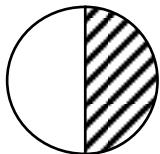
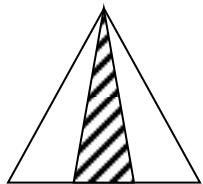


$\frac{1}{4}$ (a quarter)

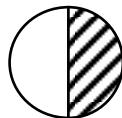


$\frac{3}{7}$ (three seventh)

Exercise



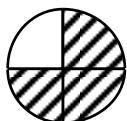
$\frac{1}{2}$



$\frac{5}{7}$

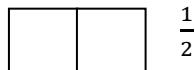


$\frac{3}{4}$

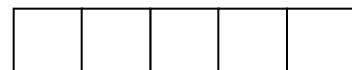


Exercise

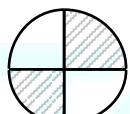
Shade the fractions



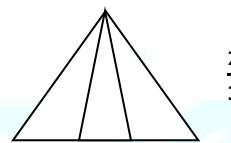
$\frac{1}{2}$



$\frac{3}{5}$



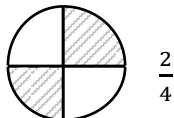
$\frac{1}{4}$



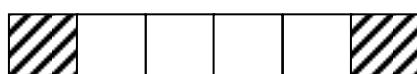
$\frac{2}{3}$

Shaded fractions

Write the shaded fractions

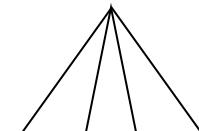
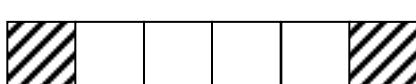
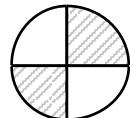


$\frac{2}{4}$



Unshaded fractions

Write the unshaded fractions



Addition of fractions

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

Contact: 0754895241/0783298434

Email: tekule@tekartlearning.com

Website: www.tekartlearning.com

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

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

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

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 $\frac{1}{5}$

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

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

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Email: tekule@tekartlearning.com

Website: www.tekartlearning.com

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

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

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

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

Sh. 30

+ sh. 40

sh. 70

Sh. 20

+ Sh. 80

Sh. 100

Sh. 250

+ Sh. 300

Sh. 550

sh. 400

+ sh. 300

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

- 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

Sh.500

- Sh.200

Sh.300

Sh.450

- Sh.250

Sh.200

Sh.40

- Sh. 10

Sh. 30

800/= minus 100/= equals ____

700/= minus 200/= equals ____

700/= minus 200/= equals ____

Ref MK pupils book 1 page 130

SHOPPING



Shs.50



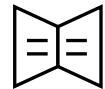
Shs.100



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

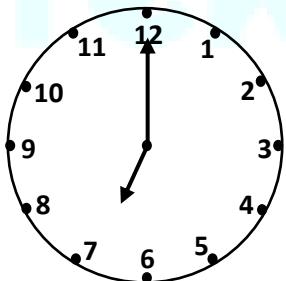
There are two main hands on a clock face

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

There are two systems of time

- 12 hour clock
- 24 hour clock

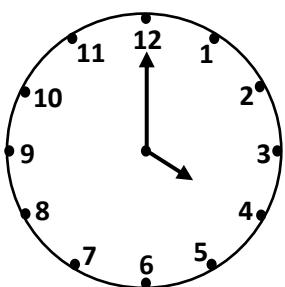
Telling time in full hours (exact time)



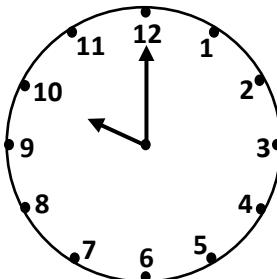
It is 7 o'clock

Activity

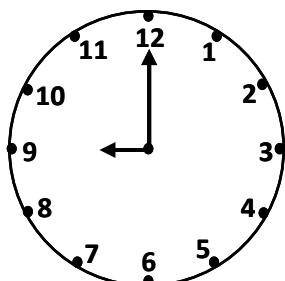
What is the time?



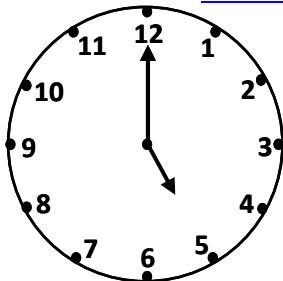
It is ____ o'clock



It is ____ o'clock

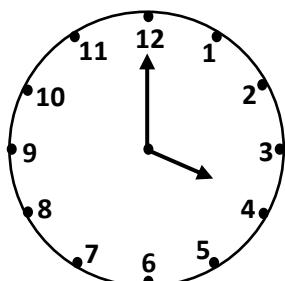
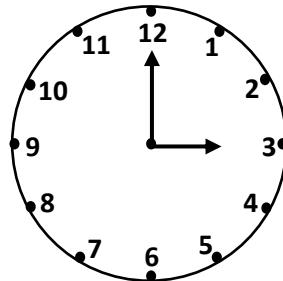


It is ____ o'clock

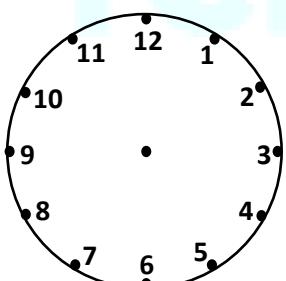


It is ____ o'clock

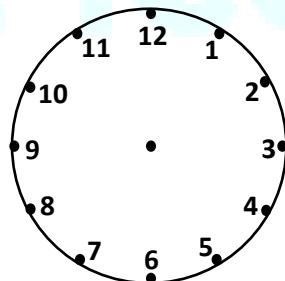
Showing time in full hours


 It is **4** o'clock

 It is **3** o'clock

Activity

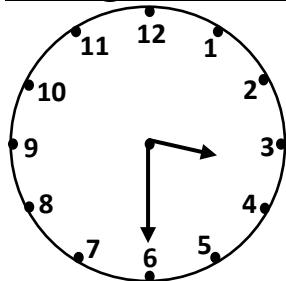


It is 6 o'clock

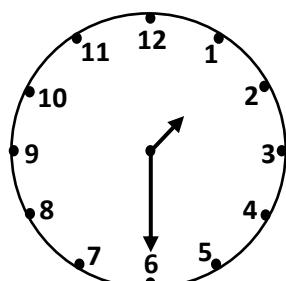


It is 8 o'clock

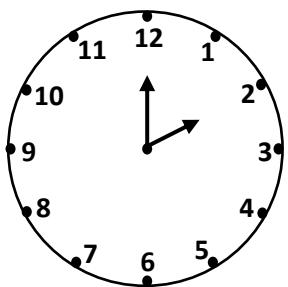
Telling time in half hours



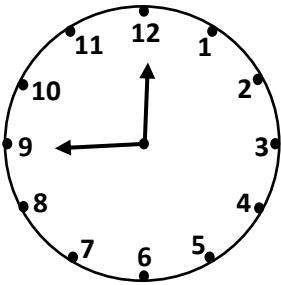
It is a half past 3



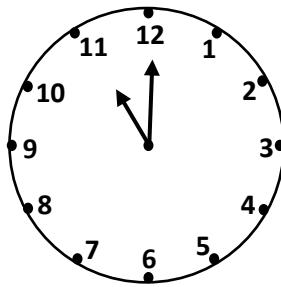
It is a half past 1



It is 2 o'clock.



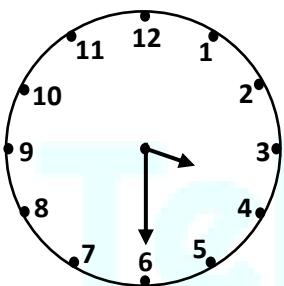
It is 9 o'clock.



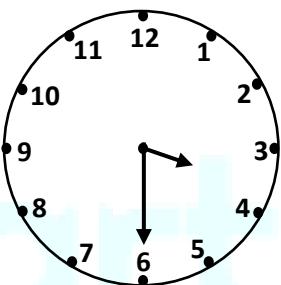
It is 12 o'clock.

Activity

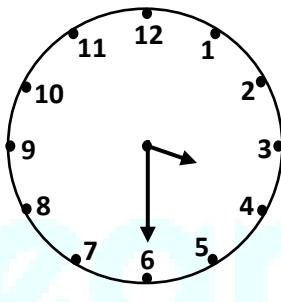
Tell the time



It is _____

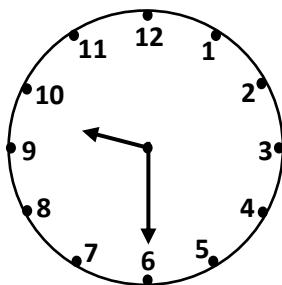


It is _____

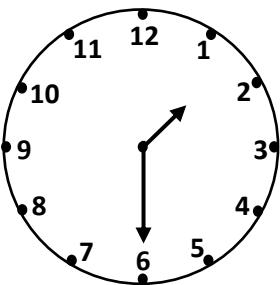


It is _____

Telling time using a half past.

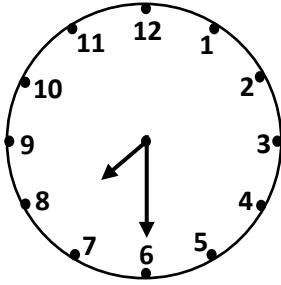
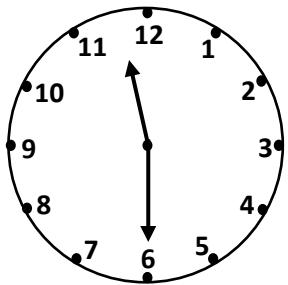


It is half past 9



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 the 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.

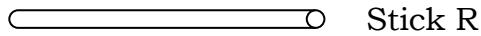
The basic unit for measuring length is metres (m)

Things used to measure length

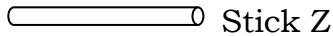
- Ruler
- Tape measure
- Handspans
- Armspans
- Strides
- A stick

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 stick 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)
$$\begin{array}{r}
 4 \text{ m} \\
 + 7 \text{ m} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 6 \text{ m} \\
 + 3 \text{ m} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 20 \text{ m} \\
 + 10 \text{ m} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 8 \text{ m} \\
 + 2 \text{ m} \\
 \hline
 \end{array}$$

d)
$$\begin{array}{r}
 \text{m} \\
 7 \\
 + 8 \\
 \hline
 \end{array}$$

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

$$\begin{array}{r}
 \text{m} \\
 100 \\
 + 300 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 \text{m} \\
 30 \\
 + 10 \\
 \hline
 \end{array}$$

e)
$$\begin{array}{r}
 15 \text{ cm} \\
 + 24 \text{ cm} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 55 \text{ cm} \\
 + 32 \text{ cm} \\
 \hline
 \end{array}$$

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

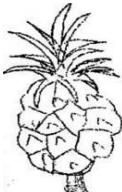
Things we can measure

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

Comparing weight using heavier and lighter



an orange

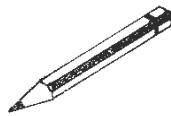


a pineapple

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

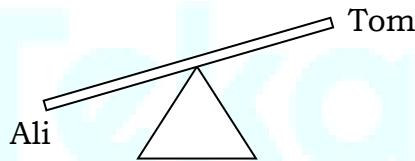


a cup

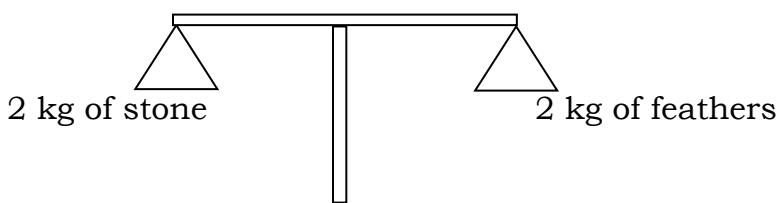


a pencil

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



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



Which object is lighter?

Addition of weight in kg and g

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

2) $2\text{kg} + 1\text{kg} = \underline{\hspace{2cm}}$ kg

3) $10\text{kg} + 2\text{kg} = \underline{\hspace{2cm}}$ kg

4) $4\text{g} + 3\text{g} = \underline{\hspace{2cm}}$ g

5)
$$\begin{array}{r} 40\text{kg} \\ + 20\text{kg} \\ \hline \end{array}$$

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

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

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. $4\text{kg} - 3\text{kg} =$

2. $9\text{kg} - 7\text{kg} =$

3. 8kg

$\underline{- 3\text{kg}}$

$\underline{35\text{kg}}$

$\underline{- 14\text{kg}}$

$\underline{400\text{g}}$

$\underline{- 100\text{g}}$

$\underline{64\text{kg}}$

$\underline{- 21\text{kg}}$

 $\underline{\underline{\quad\quad\quad}}$ $\underline{\underline{\quad\quad\quad}}$ $\underline{\underline{\quad\quad\quad}}$ $\underline{\underline{\quad\quad\quad}}$ **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)

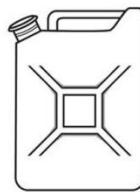
- Water
- Juice
- Paraffin
- Soda
- Milk
- E.t.c

Things used to measure liquids

- Jerry cans
- Tanks
- Bottles
- Cups
- Glasses
- Bucket
- Basin

1.

a cup

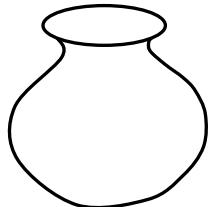


a jerrycan

a) Which container holds more liquid

b) Which container holds less liquid

2.



Pot W



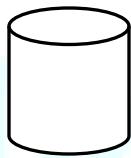
Pot R

a) Which pot holds more liquids?

b) Which pot holds less liquid?

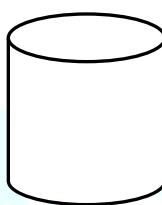
3.

Tin X



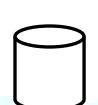
5 litres

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

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

Word problems involving addition of capacity in litres

- Five litres plus four litres equals
- Eight litres plus one litre equals
- Three litres plus two litres gives
- 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) $4L - 2L = \underline{\hspace{2cm}}$ 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) $4 + \boxed{\quad} = 5$

b) $\boxed{\quad} + 6 = 10$

Word problems

$\boxed{\quad}$ plus five equals eight

Find missing numbers in subtraction

$$6 - \boxed{\quad} = 2$$

$$\boxed{\quad} - 3 = 7$$

Word problems involving finding missing numbers in subtraction.

Seven take away $\boxed{\quad}$ equals three

$\boxed{\quad}$ minus two equals six