

# SMART STAR EXAMINATIONS BOARD

## PRIMARY TWO

## MATHEMATICS

# LESSON NOTES

# TERM I 2023

## THEME I: OUR SCHOOL AND NEIGHBOURHOOD

### SUB THEME: LOCATION, SYMBOLS AND BENEFITS OF OUR SCHOOL

#### Counting and writing from 1 – 99

Counting and writing number symbols from 1 – 99

- a) 1, 2, 3, 4, 5, \_\_, \_\_, \_\_
- b) 10, 11, 12, 13, 14, \_\_, \_\_
- c) 51, 52, 53, 54, 55, \_\_, \_\_
- d) 80, 81, 82, 83, 84, 85, \_\_, \_\_, \_\_, \_\_ 99

#### Exercise

- a) Fill in the missing numbers

- i) 2, 3, 4, 5, \_\_, \_\_, \_\_
- ii) 20, 21, 23, \_\_, 25, \_\_
- iii) 71, \_\_, 73, 74, \_\_, 76, \_\_
- iv) 78, 79, \_\_, 81, \_\_, 83, \_\_
- v) 90, 91, 92, \_\_, 94, \_\_, \_\_

#### What is a set?

A set is a collection of things.

A set is a group of things.

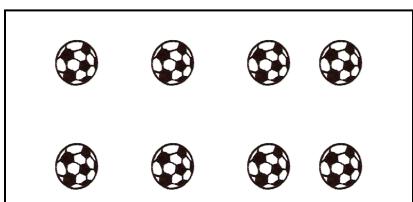
An empty set is a set with no members.

**Symbol for empty set is  $\emptyset$**

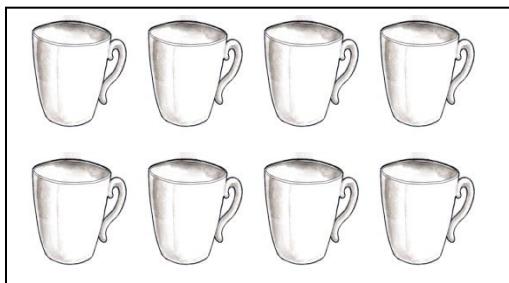
Things in a set are called **members** or **elements** or **objects**

#### Examples

##### 1. A set of 8 balls

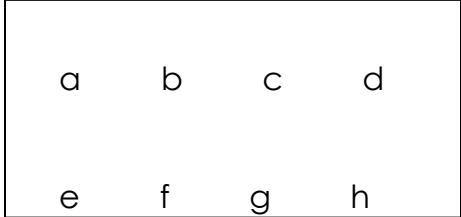
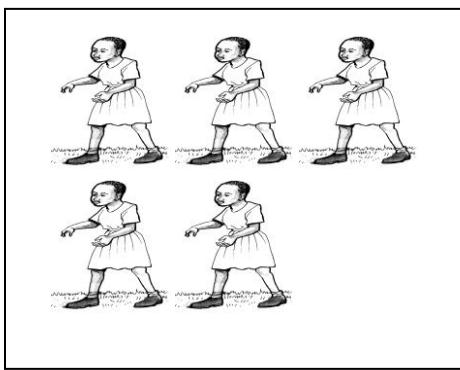
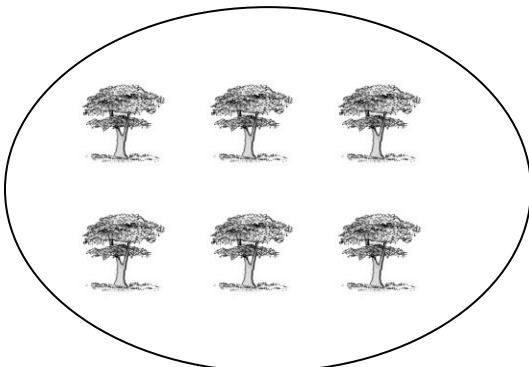


##### 2. A set of 8 cups



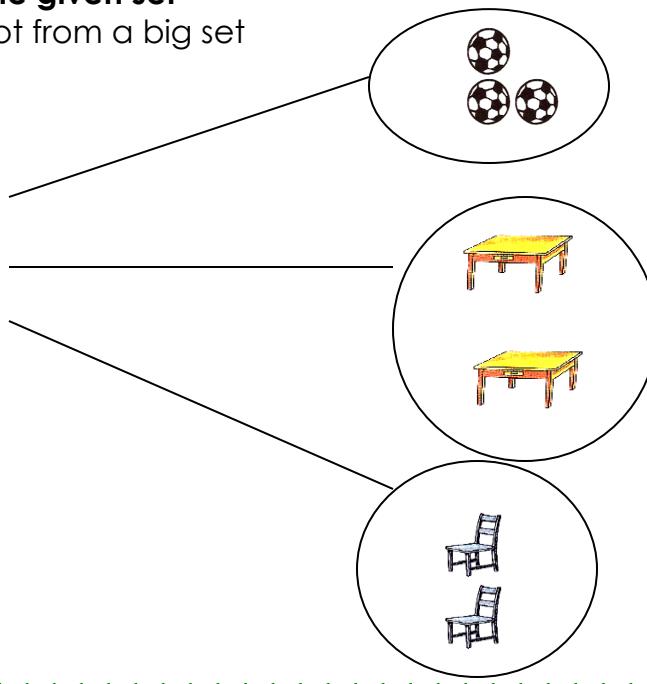
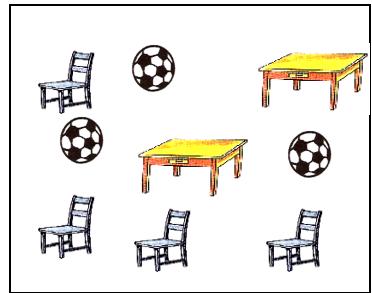
## **Exercise**

Name these sets



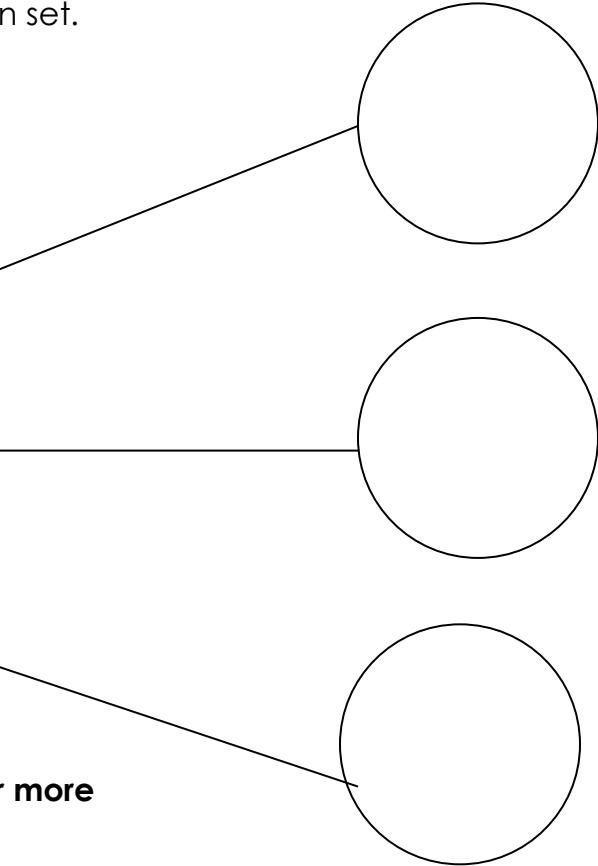
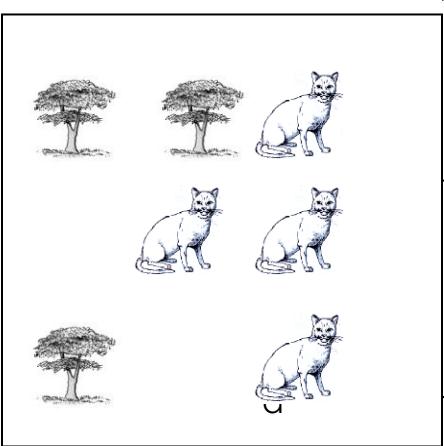
## **Forming new sets from the given set**

A sub set is a small set got from a big set



## Exercise

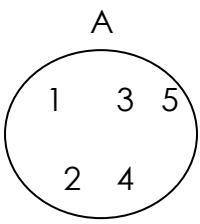
Form new sets from the given set.



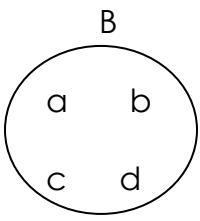
## Comparing sets using less or more

Examples

1.



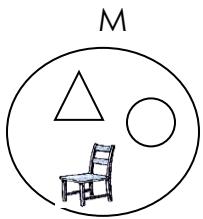
Set A has 5 members



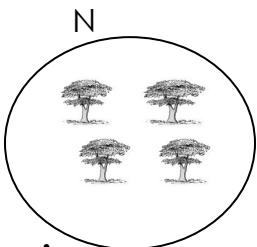
Set B has 4 members

**Set A has more members than set B**

2.



Set M has 3 members



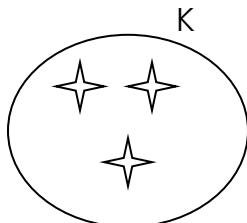
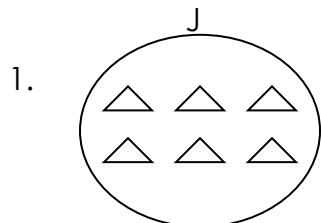
Set N has 4 members

Set M has less members than set N.

Set N has more members than set M.

### Exercise

Fill in less or more to complete the statement



Set J has \_\_\_\_\_ members than set K.

Set K has \_\_\_\_\_ members than set J.

### Joining sets / Adding sets

Examples

1.

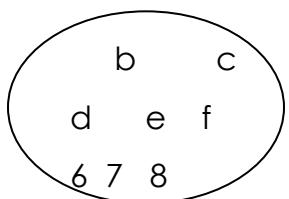
A diagram showing the addition of two sets of trees. On the left, a circle labeled '4' contains three tree icons. In the center, a plus sign (+) is followed by another circle containing three tree icons. To the right of the equals sign (=) is a larger circle containing seven tree icons, representing the total.

2.

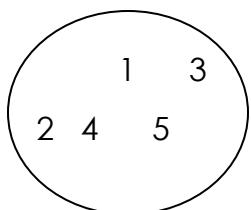
A diagram showing the addition of three sets of children. On the left, a circle labeled '2' contains two child icons. In the center, a plus sign (+) is followed by another circle containing four child icons. To the right of the equals sign (=) is a larger circle containing seven child icons, representing the total.

## Exercise

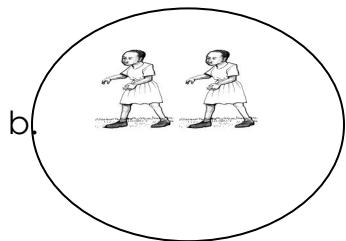
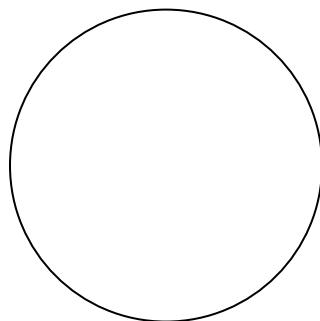
Join the given sets correctly



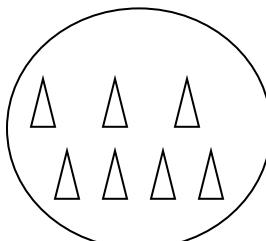
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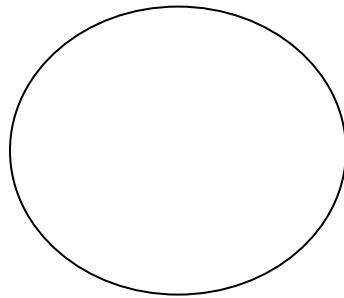
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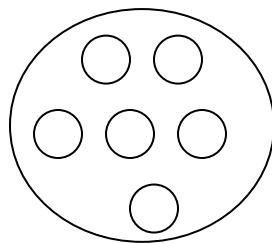
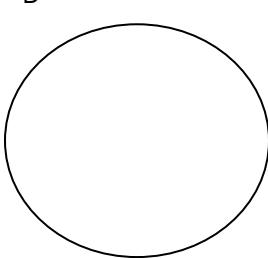
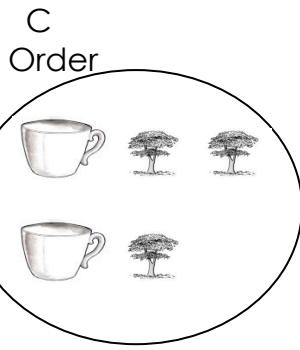
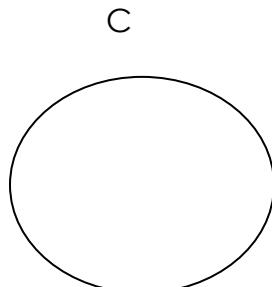
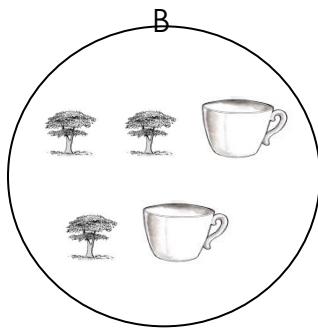
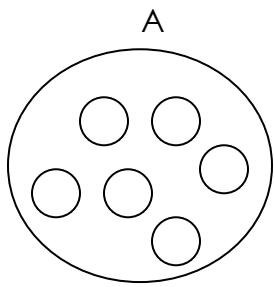
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## Ordering sets

### Examples

Order these sets starting from the smallest



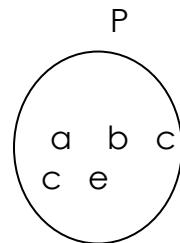
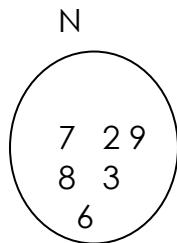
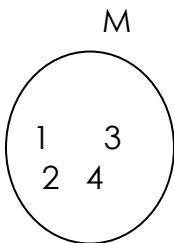
Set C comes first

Set B comes second

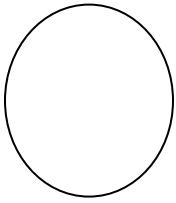
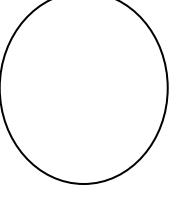
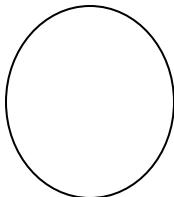
Set A comes third

## Exercise

Order the following sets starting from the biggest



Order them



Set \_\_\_\_\_ comes first.

Set \_\_\_\_\_ comes the second.

Set \_\_\_\_\_ comes third.

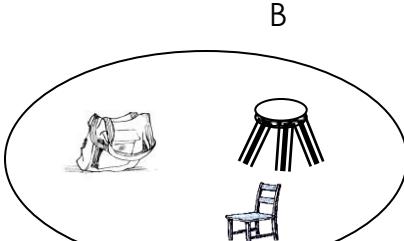
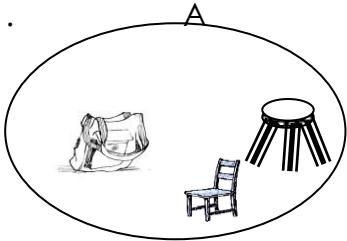
## TYPES OF SETS

### 1. Equal sets (=)

These are sets with the same members.

Examples

1.



(i) How many members are in set A?

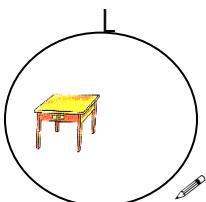
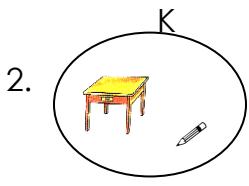
(ii) Name the members in set A.

(iii) How many members are in set B?

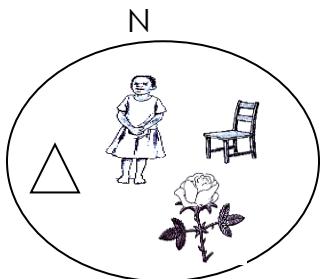
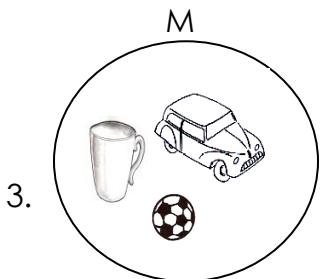
(iv) Name the members in set B.

Members in set A are the same as those in set B

Therefore; Set A and B are equal sets.



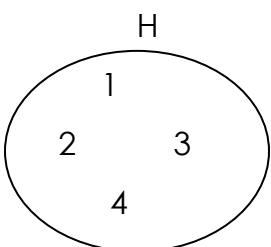
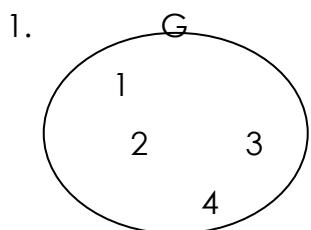
**Set K and set L have the same members and number. So set K is equal to set L.**



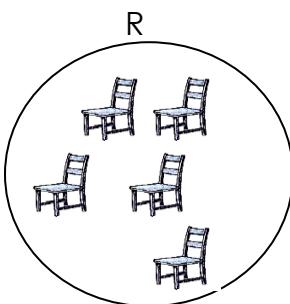
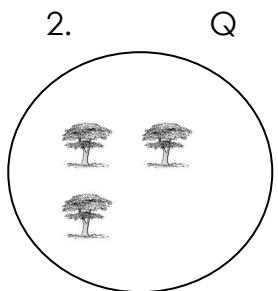
**Set M and N do not have the same type and number of members so set M is not equal to set N. ( $\neq$ )**

### Exercise

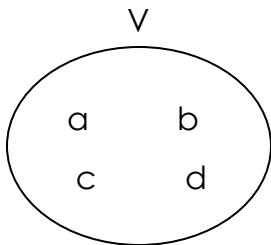
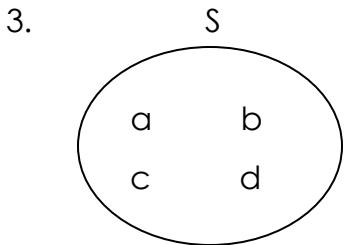
Use equal or not equal (= or  $\neq$ )



Set G is \_\_\_\_\_ to set H.

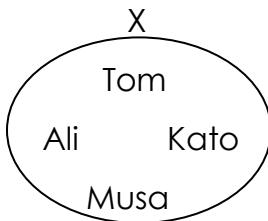
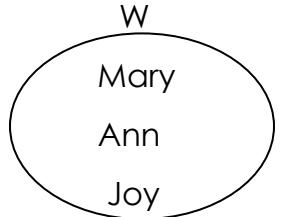


Set Q is \_\_\_\_\_ to set R.



Set S is \_\_\_\_\_ to set V.

4.



Set W is \_\_\_\_\_ to set X.

### Empty sets

An empty set is a set without elements or members.

Examples

1. If set K = ( Girls with 3 legs)

Set K has no element or member

**Therefore set K is an empty set.**

We write it as { }

2. If set m = ( snakes with legs)

There are no snakes with legs **so set m is an empty set.**

### Exercise

Write empty or not empty

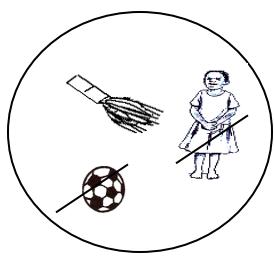
- |                                |                               |
|--------------------------------|-------------------------------|
| a. Set of birds with 7 eyes    | d. A set of cats with 4 legs  |
| b. A set of snakes with legs   | e. A set of boys with 5 hands |
| c. A set of goats with one leg |                               |

### INTERSECTION SETS OR JOINT SETS

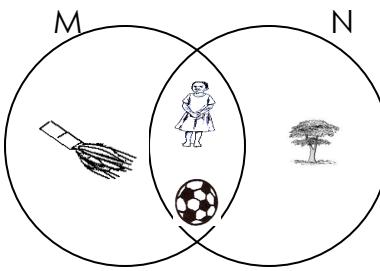
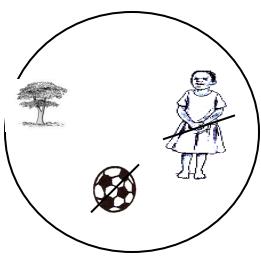
These are sets with common members

Examples

1.



N



Common members in set M and N are

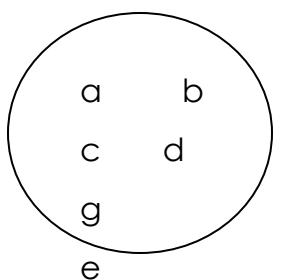


The symbol for intersecting sets is  $\cap$ .

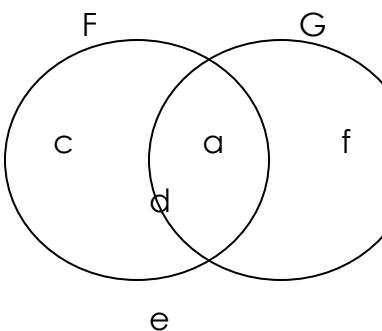
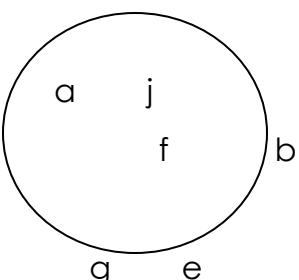
so  $M \cap N = \{ \text{ } \}$



2. F



G

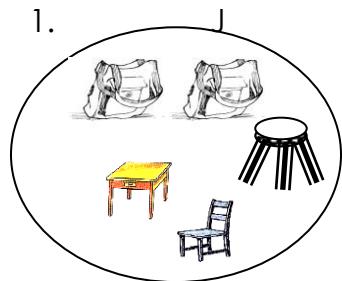


$$F \cap G = (a, b, e)$$

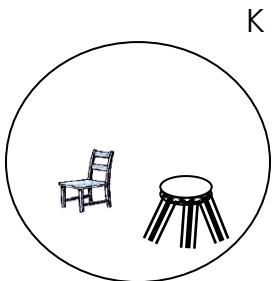
**Exercise**

**Complete the sets correctly**

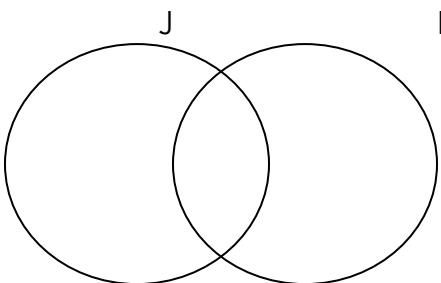
1.



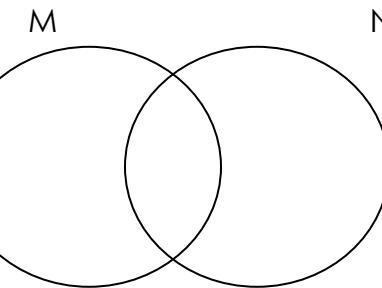
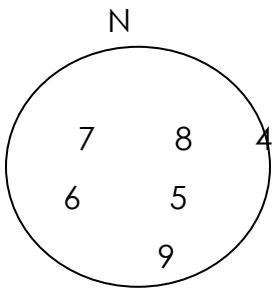
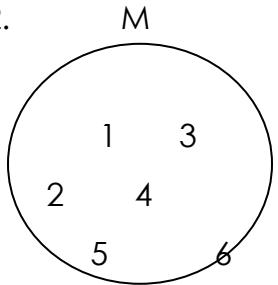
K



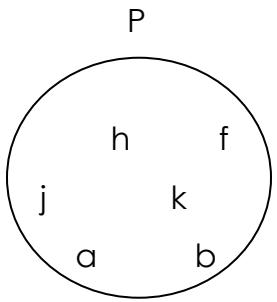
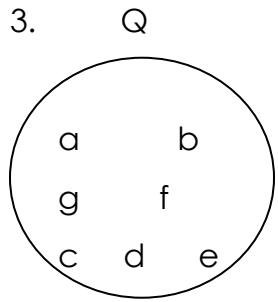
J



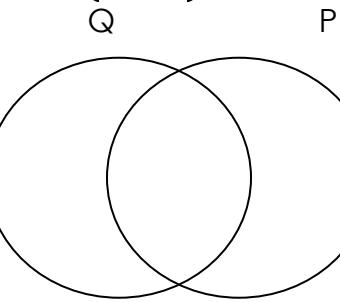
2.



3.



$M \cap N = \{ \text{ } \}$



$Q \cap P = \{ \text{ } \}$

4. Set A = ( 1, 2, 3, 4, 5)

Set B = ( 4, 6, 7, 2)

$$A \cap B = \{ \}$$

5. Set Q = (a, b, c, d, e f, g)

Set M = {a, b, c, k, l}

$$Q \cap M = \{ \}$$

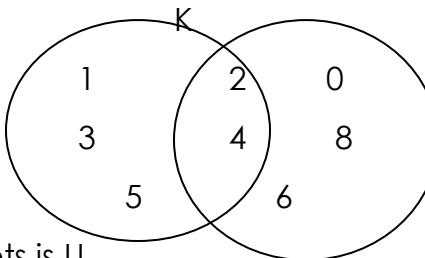
### UNION SETS

A **union set** is a set with all members in the given sets without repeating any member.

Examples

1. What is K union L

?



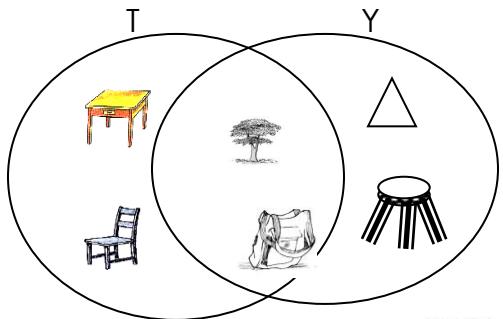
The symbol for union sets is U

$$K \cup L = (1, 3, 5, 3, 4, 6, 0, 8)$$

2. T = {, , , }

Y = {, , , }

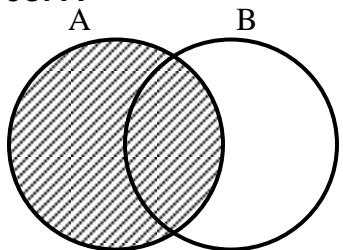
What is T Union Y?



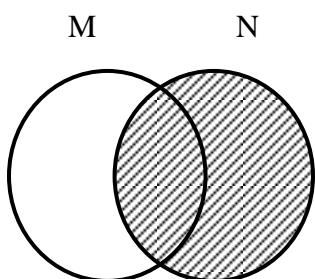
$$T \cup Y = \{ \text{yellow table}, \text{blue chair}, \text{tree}, \text{backpack}, \text{triangle}, \text{stool} \}$$

## SHADING VENN DIAGRAMS

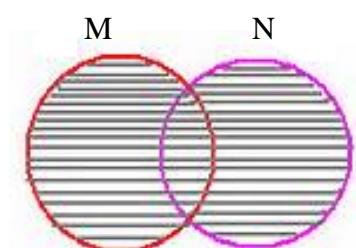
**Set A**



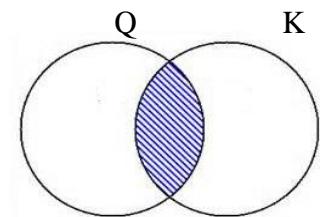
**Set A**



**Set N**



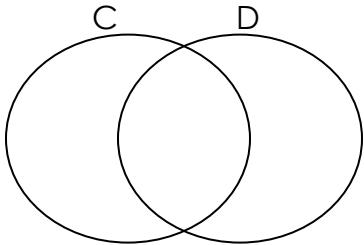
**QUK**



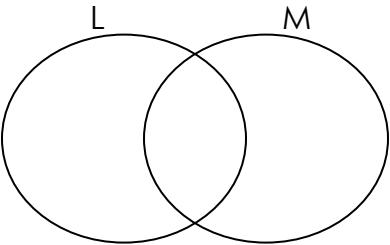
**$P \cap S$**

### Exercise

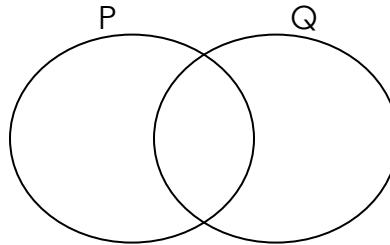
- Shade the sets below.



**$C \cap D$**



**$L \cup M$**

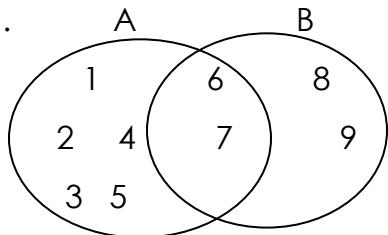


**Set P**

### Exercise

Study the given sets and answer the questions.

1.



- b. How many members are in set A?
  - c. Name the set with less members?
  - d. What is A union B?
2. Given that set S = (a, b, c, d, e)

$$P = (a, d, g, h, a)$$

- (a) What is S union P?

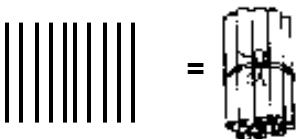
### THEME 2: OUR HOME AND COMMUNITY

#### Subtheme: Relationships among family members

Counting and writing number symbols from 100 - 200

Tens and ones using bundles.

1.



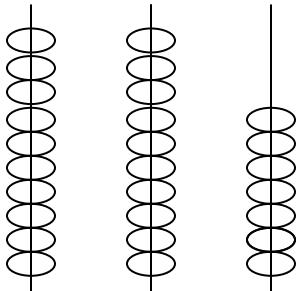
10 ones = 1 ten

2.



2 tens and 4 ones

3.



2 tens and 1 one

## **Counting and writing numbers symbols from 100 – 200**

- a) 100, 101, 102, 103, 104, 105, \_\_\_\_\_
- b) 150, 151, 152, 153, 154, 155, \_\_\_\_\_
- c) 190, 191, 192, 193, 194, \_\_\_\_\_ 200

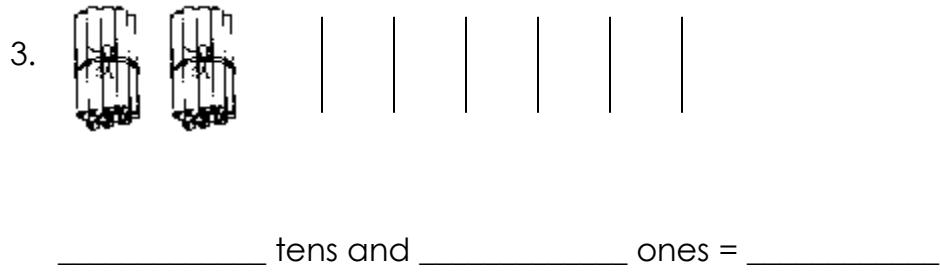
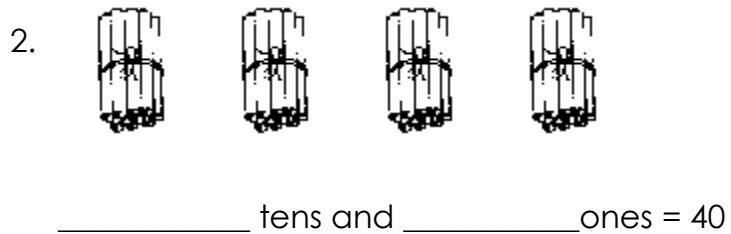
### **Exercise**

- i) Fill in the missing numbers

- a) 105, 106, \_\_, 108, \_\_
- b) 140, 141, 142, \_\_, 144, \_\_, \_\_
- c) 178, \_\_, 180, 181, \_\_, 183, \_\_
- d) 160, 161, \_\_, 163, \_\_, \_\_, \_\_
- e) 193, 194, \_\_, 196, \_\_, \_\_, \_\_

### **Exercise**

#### **Complete correctly**



#### **Tens and ones by using figure without objects or pictures**

#### **Examples**

1.  $35 = 3$  tens and 5 ones
3.  $40 = 4$  tens and 0 ones
4.  $61 = 6$  tens and 1 ones

5. 8 tens and 6 ones = 86

6. 9 tens and 0 ones = 90

### **Exercise**

#### **Fill in missing tens and ones**

1.  $48 = \underline{\hspace{1cm}}$  tens and  $\underline{\hspace{1cm}}$  ones.

2.  $0 = \underline{\hspace{1cm}}$  tens and  $\underline{\hspace{1cm}}$  ones.

3.  $9 = \underline{\hspace{1cm}}$  tens and  $\underline{\hspace{1cm}}$  ones.

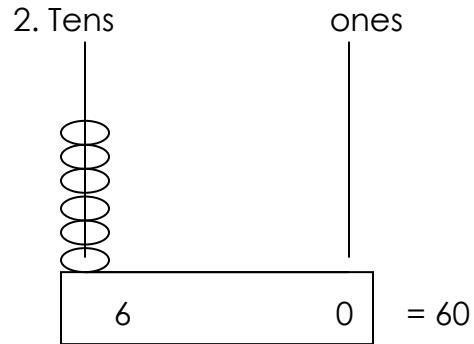
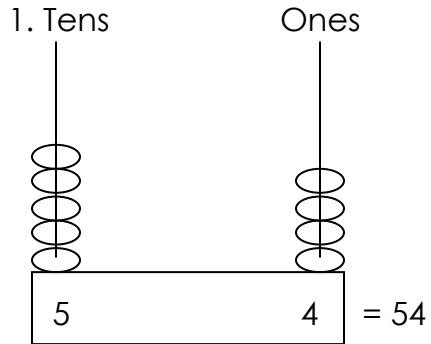
4.  $99 = \underline{\hspace{1cm}}$  tens and  $\underline{\hspace{1cm}}$  ones.

5. 1 tens and 7 ones =  $\underline{\hspace{1cm}}$

6. 3 tens and 9 ones =  $\underline{\hspace{1cm}}$

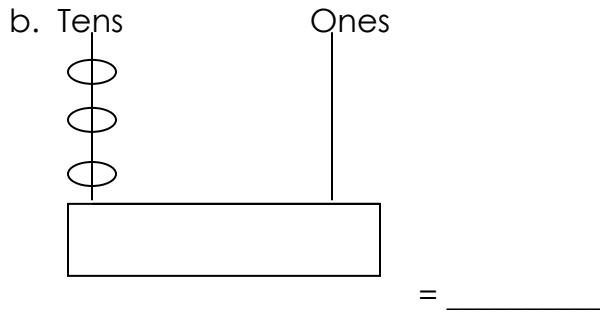
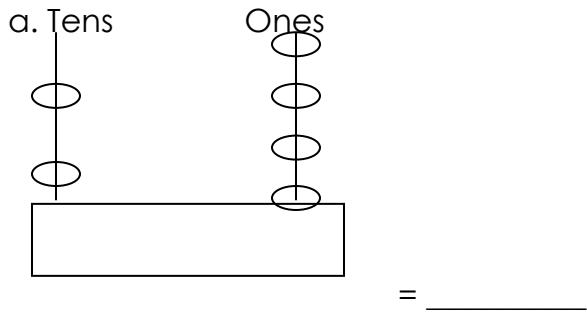
#### **Showing numbers on the abacus**

#### **Examples**

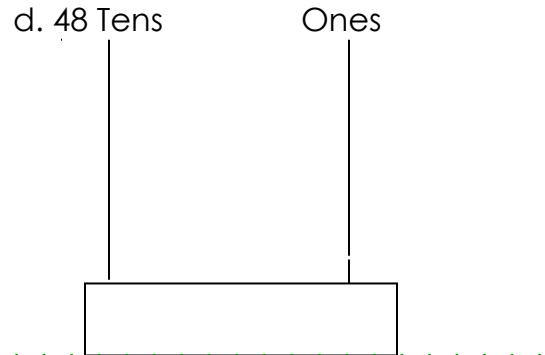
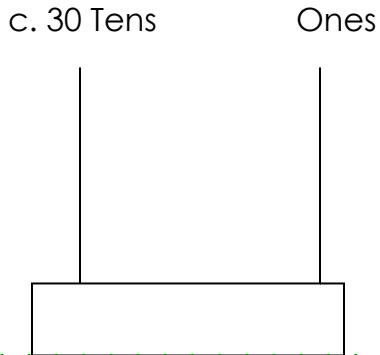


### **Exercise**

Find the given numbers from the abacus



Show the following numbers on the abacus



## Counting in hundreds

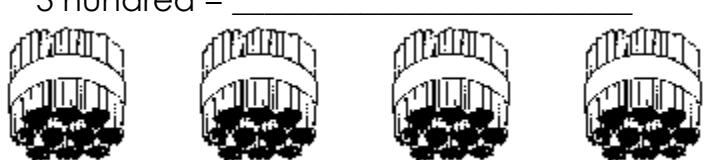
### Examples

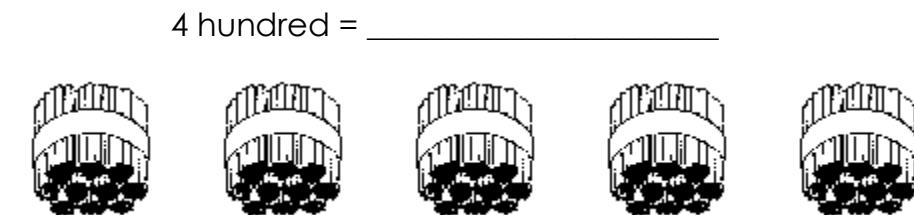
1.  =   
10 tens = 1 hundred
2.  = 2 hundreds = 200

### EXERCISE

#### COMPLETE CORRECTLY

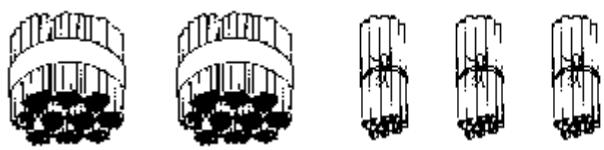
- a.  3 hundred = \_\_\_\_\_

- b.  4 hundred = \_\_\_\_\_

- c.  5 hundred = \_\_\_\_\_

## Counting in hundreds tens and ones

### Examples

1.  2 hundred, 3 tens and 5 ones = 235

2.  1 hundred, 1 ten and 4 ones = 144

### **Exercise**

#### **Fill in the hundred, tens and ones**

a.



b.



c.



\_\_\_\_\_ hundred \_\_\_\_\_ tens and \_\_\_\_\_ ones = \_\_\_\_\_

#### **Counting in hundreds tens and without bundles**

#### **Examples**

1.  $125 = 1$  hundreds, 2 tens and 5 ones
2.  $900 = 9$  hundreds, 0 tens and 0 ones
3.  $619 = 6$  hundred, 1 tens and 9 ones
4. 7 hundreds, 1 tens and 8 ones = 708
5. 0 hundreds, 2 tens and 1 ones = 21

### **Exercise**

#### **Fill in the hundreds, tens and ones**

- a.  $888 =$  \_\_\_\_\_ hundreds, \_\_\_\_\_ tens and \_\_\_\_\_ ones
- b.  $924 =$  \_\_\_\_\_ hundreds, \_\_\_\_\_ tens and \_\_\_\_\_ ones
- c.  $117 =$  \_\_\_\_\_ hundred, \_\_\_\_\_ tens and \_\_\_\_\_ ones
- d.  $450 =$  \_\_\_\_\_ hundreds, \_\_\_\_\_ tens and \_\_\_\_\_ ones
- e.  $92 =$  \_\_\_\_\_ hundreds \_\_\_\_\_ tens and \_\_\_\_\_ ones
- f. 9 hundreds, 7 tens and 6 ones = \_\_\_\_\_
- g. 2 hundreds, 0 tens and 0 ones = \_\_\_\_\_
- h. 1 hundreds, 9 tens and 9 ones = \_\_\_\_\_

## Writing number symbols in words from 11 – 20

### Examples

11	eleven	16	sixteen
12	twelve	17	seventeen
13	thirteen	18	eighteen
14	fourteen	19	nineteen
15	fifteen	20	twenty

### Exercise

Write these numbers in words

- a. 19: \_\_\_\_\_ f. 12: \_\_\_\_\_
- b. 18: \_\_\_\_\_ g. 13: \_\_\_\_\_
- c. 20: \_\_\_\_\_ h. 11: \_\_\_\_\_
- d. 16: \_\_\_\_\_ i. 15: \_\_\_\_\_
- e. 14: \_\_\_\_\_ j. 17: \_\_\_\_\_

## Writing number symbols in words.

### Examples:

30	thirty
40	forty
50	fifty
60	sixty
70	seventy
80	eighty
90	ninety
100	one hundred

### Exercise

Write these figures in words

- 50 \_\_\_\_\_ 70 \_\_\_\_\_
- 40 \_\_\_\_\_ 60 \_\_\_\_\_
- 30 \_\_\_\_\_ 90 \_\_\_\_\_
- 80 \_\_\_\_\_ 100 \_\_\_\_\_

## Writing number symbols in words

### Examples:

48 = 4 0 forty

+ 8 eight

48 = forty eight

120 = 1 0 0 one hundred

+ 2 0 twenty

120 one hundred twenty

### Exercise

#### Write them in words

a. 68

d. 162

g. 720

b. 72

e. 789

h. 999

c. 66

f. 216

## Writing number names in symbols or figures

### Examples

1. Two hundred twenty seven

two hundred = 200

twenty = 20

seven + 7

Two hundred twenty seven = 227

2. Nine hundred fifty

nine hundred = 900

fifty = +50

Nine hundred fifty 9 50

### Exercise

#### Write the number in figures:

a. Seven hundred twenty nine

d. Four hundred forty four

b. six hundred sixty six

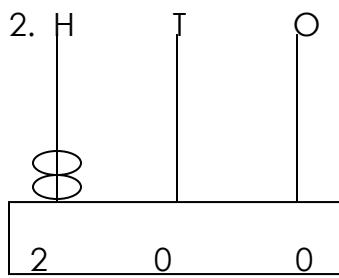
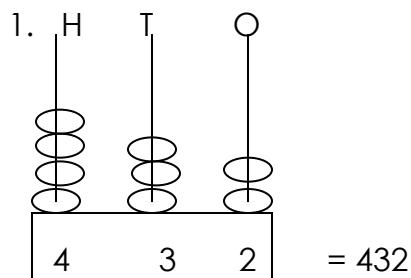
e. Five hundred eleven

c. Nine hundred twelve

f. twenty eight

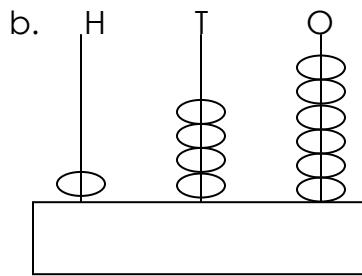
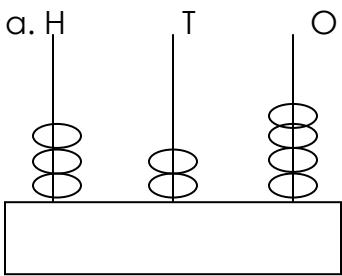
## Showing numbers on the abacus

### Examples

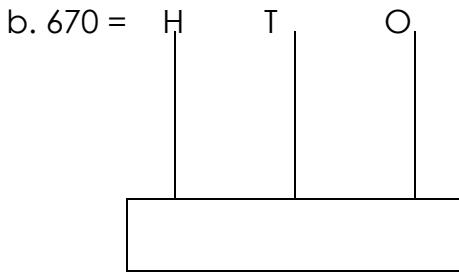
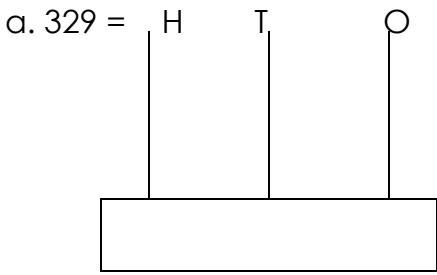


### Exercise

1. Find the given numbers on the abacus.



2. Show the following numbers on the abacus



## PLACE VALUES

### Examples

1. Given 238: In the given number each figure has its own place value.

H	T	O
2	3	8

The place value of 8 is ones

The place value of 3 is tens

The place value of 2 is hundreds

### Exercise

#### Give the place value of the underlined digits

a. 782

c. 618

e. 216

b. 943

d. 108

f. 149

#### Finding values of digits

##### Examples

1. What is the value of 3 in 432?

H   T   O

4    3   2

= 3 tens

=  $3 \times 10$

= 30

The value of 3 is 30

2. What is the value of 9 in 2 4 9?

H	T	O
2	4	9

= 9 ones

=  $9 \times 1$

= 9

The value of 9 is 9

### Exercise

Find the value of the underlined figure in the given numbers

1. 489

4. 938

7. 294

2. 643

5. 940

8. 416

3. 167

6. 316

#### Expanding numbers

##### Examples

a. Expand 83

8 tens + 3 ones

80   + 3

83 = 80 + 3

b. Expand 492

492

4 hundred + 9 tens + 2 ones

$$492 = 400 + 90 + 2$$

### **Exercise**

#### **Expand these numbers correctly**

$$E46 = 40 + 6$$

$$16 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$78 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$146 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

#### **Finding the expand numbers**

$$1. 20 + 5 = 20$$

$$\begin{array}{r} + 5 \\ \hline 25 \end{array}$$

$$2. 300 + 40 + 8 = 300$$

$$\begin{array}{r} 40 \\ + 8 \\ \hline 348 \end{array}$$

$$3. 40 + 20 + 34 =$$

### **Exercise**

#### **Find the expanded numbers**

$$a. 700 + 40 + 2 =$$

$$d. 90 + 2 =$$

$$g. 500 + 50 + 5 =$$

$$b. 800 + 60 + 9 =$$

$$e. 100 + 80 + 9 =$$

$$h. 600 + 10 + 2 =$$

$$c. 10 + 8 =$$

$$f. 900 + 40 + 1 =$$

$$i. 20 + 2 =$$

### **Counting and writing from 200 - 300**

### **Counting and writing number symbols from 200 - 300**

a) 200, 201, 202, 203, , 205, \_\_, \_\_

b) 230, 231, 232, 233, 234, .....

c) 270, 271, 272, 273, 274, .....

d) 290, 291, 292, 293, .....300

## Exercise

### Fill in the missing numbers

- 210, 211, 212, \_\_, 214, \_\_, \_\_
- 233, 234, \_\_, 236, \_\_, \_\_
- 260, 261, 262, \_\_, 265, \_\_
- 287, 288, \_\_, 290, 291, \_\_

### Adding 2 digit numbers vertically without regrouping

Examples

a. Tens      Ones

$$\begin{array}{r} 3 \\ + 2 \\ \hline 5 \end{array}$$

b. Tens      Ones

$$\begin{array}{r} 6 \\ + 1 \\ \hline 7 \end{array}$$

c. Tens      Ones

$$\begin{array}{r} 4 \\ + 1 \\ \hline 3 \end{array}$$

## Exercise

1. Tens      Ones

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

2. Tens      Ones

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

3. Tens      Ones

$$\begin{array}{r} 1 \\ + 1 \\ \hline 0 \end{array}$$

---

4. Tens      Ones

$$\begin{array}{r} 6 \\ + 3 \\ \hline 1 \end{array}$$

---

Tens      Ones

$$\begin{array}{r} 6 \\ + 2 \\ \hline 4 \end{array}$$

---

### Addition of 2 digits numbers without regrouping (horizontally)

a.  $49 + 20 = 69$

T	O
4	9
2	0
<hr/>	
6	9
<hr/>	

b.  $60 + 5 = 65$

T	O	2    3
6	0	4    0
+    5		3    5
<hr/>		9    8
<hr/>		

c.  $23 + 40 + 35 =$

### Exercise

1.  $49 + 10 =$

---

4.  $18 + 20 =$

---

7.  $62 + 10 =$

---

2.  $52 + 7 =$  \_\_\_\_\_

5.  $11 + 11 =$  \_\_\_\_\_

8.  $0 + 10 =$  \_\_\_\_\_

3.  $51 + 11 =$  \_\_\_\_\_

---

9.  $64 + 3 =$  \_\_\_\_\_

---

6.  $77 + 12 =$  \_\_\_\_\_

---

10.  $72 + 6 =$  \_\_\_\_\_

## Word problems involving addition of 2 digit numbers without regrouping

### Examples

1. Mary had 12 bananas. Her mother gave her 7 more bananas. How many bananas has she altogether?

Mary had                  1        2 bananas

Mother gave her        +        7 bananas

Altogether she has    1        9 bananas

2. Odong has 43 sweets. Atim has 30 sweets. How many sweets do they have altogether?

Odong has 43 sweets

Atim has + 30 sweets

Altogether they have 73 sweets

### Exercise

1. There are 30 eggs on tray and 47 in a box. How many eggs are there altogether?
2. Nakku sold 42 dresses. Abbas sold 40 dresses. How many dresses did they sell altogether?
3. Find the sum of 96 and 3.
4. A trader bought 24 turkeys on Monday and 52 turkeys on Tuesday. How many turkeys did the trader buy altogether?
5. Our school had 83 pupils last year. It received 20 more pupils this year. How many pupils are in the school now?

## **Addition of 3 digits numbers without regrouping**

### Examples:

$$\begin{array}{r} \text{1. H T O} \\ \text{4 2 3} \\ \hline \text{+ 4 2} \\ \hline \text{4 6 5} \end{array}$$

$$\begin{array}{r} \text{2. H T O} \\ \text{5 4 2} \\ \hline \text{+ 1 4 3} \\ \hline \text{6 8 5} \end{array}$$

### Exercise

$$\begin{array}{r} \text{1. H T O} \\ \text{1 5 4} \\ \hline \text{+ 2 0} \end{array}$$

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

$$\begin{array}{r} \text{3. H T O} \\ \text{2 3 2} \\ \hline \text{+ 2 5} \end{array}$$

4. H T O

$$\begin{array}{r} 6 \ 3 \ 9 \\ + 1 \ 0 \\ \hline \end{array}$$

5. H T O

$$\begin{array}{r} 1 \ 6 \ 2 \\ + 3 \ 2 \\ \hline \end{array}$$

6. H T O

$$\begin{array}{r} 7 \ 0 \ 0 \\ + 2 \ 0 \ 0 \\ \hline \end{array}$$

7. H T O

$$\begin{array}{r} 2 \ 0 \ 0 \\ + 2 \ 0 \ 0 \\ \hline \end{array}$$

8. H T O

$$\begin{array}{r} 5 \ 0 \ 0 \\ + 1 \ 3 \ 3 \\ \hline \end{array}$$

### Word problems involving addition of 3 digit numbers without regrouping

#### Examples

1. A baker baked 243 cakes in the morning and 135 cakes in the afternoon.  
How many cakes did the baker bake altogether?
2. A boy collected 120 bottle tops on Monday and 538 on Tuesday. How many bottle tops did the boy collect altogether?

$$\begin{array}{r} \text{H} \ \text{T} \ \text{O} \\ 1 \ 2 \ 0 \text{ bottle tops} \\ + 5 \ 3 \ 8 \text{ bottle tops} \\ \hline 6 \ 5 \ 8 \text{ bottle tops} \end{array}$$

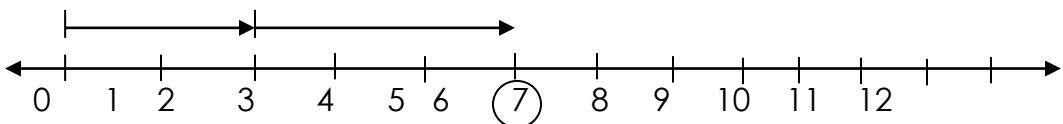
#### Exercise

1. Aguti had 230 pancakes. She made 167 more pancakes. How many pancakes does she have altogether?
2. Mary has 420 books. Sarah has 64 books. How many books do they have altogether?
3. Find the total of 600 and 38?
4. What is the sum of 738 and 100?
5. Mr. Mukasa had 621 cows on his farm. He bought 38 more cows. How many cows has he altogether?

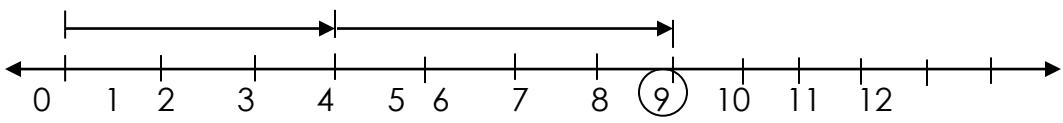
## Adding numbers using the number line

### Examples

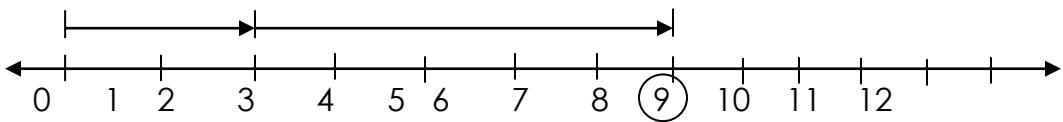
a)  $2 + 3 = 5$



b)  $3 + 4 = 7$

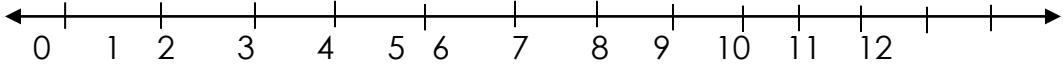


c)  $2 + 5 = 7$

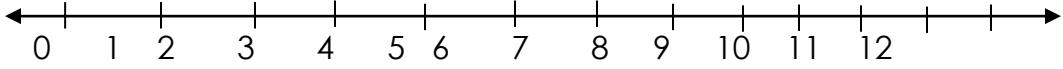


Add these numbers below using a number line.

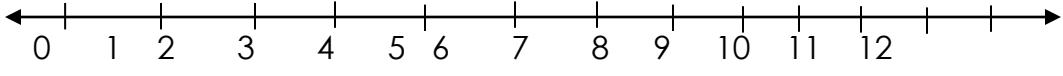
$3 + 1 =$



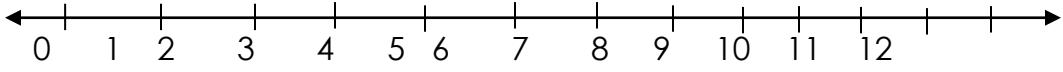
$2 + 3 =$



$5 + 3 =$



$7 + 2 =$



## THEME III: THE HUMAN BODY AND HEALTH

**Subtheme:** Parts of the body and their function

Counting and writing number symbols from 300-400

### Examples

- 300, 301, 302, 303, 304, 305, 306, 307.....
- 310, 311, 312, 313, 314, 315, .....
- 320, 321, 322, 323, 324, 325, .....
- 330, 331, 332, 333, 334, 335, 336, .....

### Exercise

#### Fill in the missing number

- a) 300, 301, 302, \_\_, \_\_, 305, 306
- b) 310, 311, \_\_, 312, \_\_, 314, 315
- c) 320, \_\_, 322, 323, \_\_, 325, \_\_
- d) 350, 351, 352, \_\_, 354, 355, \_\_

#### Writing and reading number names from 100-120

- a) One hundred 100
- b) One hundred one 101
- c) One hundred two 102
- d) One hundred three 103
- e) One hundred four 104
- f) One hundred five 105
- g) One hundred six 106
- h) One hundred seven 107
- i) One hundred eight 108
- j) One hundred nine 109

### Exercise

#### Write these figures in words

- a) 101
- b) 111
- c) 112
- d) 116
- e) 108
- f) 118
- g) 119
- h) 120

## **Measures**

### **Measure**

- Non-standard measurements used in the measuring of heights and width

#### **Parts of the body**

- arms span
- hand span
- foot
- stride

- Comparing heights using taller than/shorter than



A

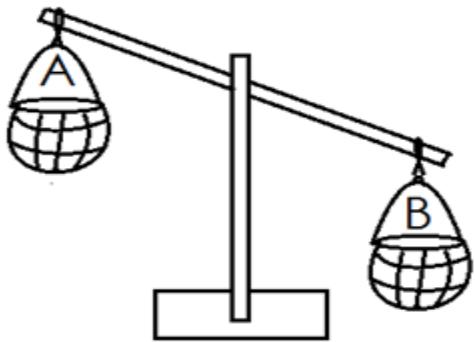


B

Tree A is shorter than tree B

Tree B is taller than tree A

- **Measuring and comparing weight**



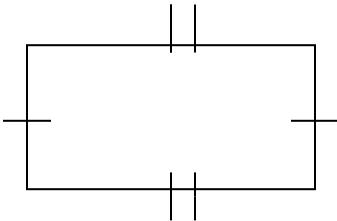
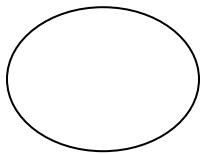
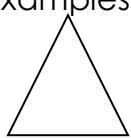
Basket B is heavier than basket A

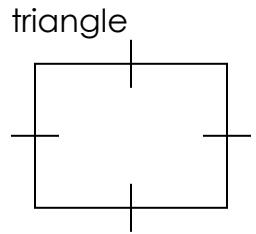
Basket A is lighter than basket B

## **Geometry**

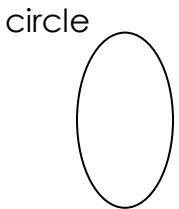
### **Naming shapes**

Examples:

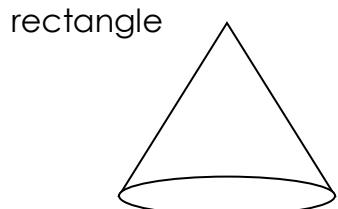




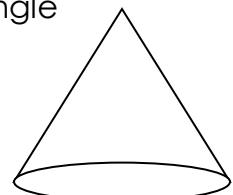
Square



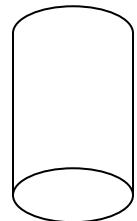
oval



triangle



rectangle



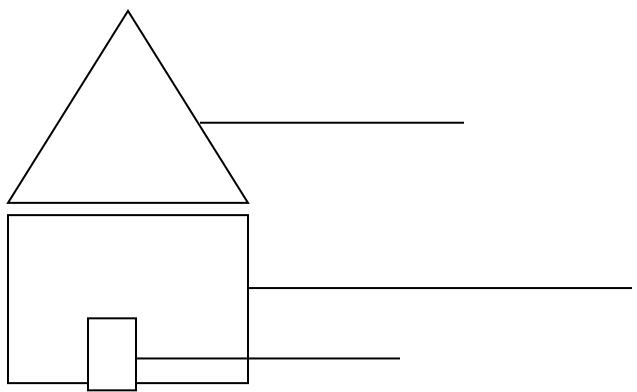
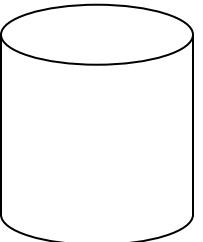
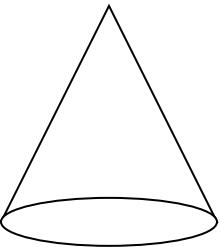
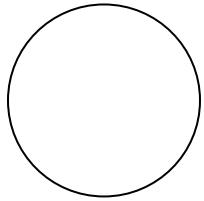
Cylinder



cone

**Exercise**

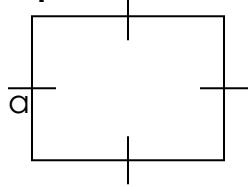
**Name these shapes**



## **Draw shapes**

### **Examples**

#### **Square**



### **Exercise**

#### **Draw the following shapes**

- a. triangle
- b. cone
- c. square
- d. cylinder
- e. circle
- f. star
- g. rectangle

## **Reading and writing the number names from 100-200**

- a). One hundred =100
- b). One hundred ten =110
- c). One hundred forty six =146
- d). One hundred fifty eight =158
- e). One hundred ninety = 199

## **Write the number names of these figures**

- 1). 105
- 2). 168
- 3). 178
- 4). 189
- 5). 200

## Subtraction of 2 digit numbers without regrouping

**Examples:**

$$\begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 5 \\ - 1 \quad 2 \\ \hline 3 \quad 3 \end{array}$$

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

$$\begin{array}{r} \text{T} \quad \text{O} \\ 9 \quad 5 \\ - 4 \quad 2 \\ \hline 5 \quad 3 \end{array}$$

**Exercise**

$$\begin{array}{r} 1. \quad 9 \quad 0 \\ - 1 \quad 0 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 5 \quad 8 \\ - \quad 2 \\ \hline \end{array}$$

$$\begin{array}{r} 3.4 \quad 9 \\ - 1 \quad 0 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 8 \quad 8 \\ - 1 \quad 4 \\ \hline \end{array}$$

## Subtracting 2 digit numbers horizontally without regrouping

**Examples**

$$\begin{array}{r} 1. \quad 43 - 2 = 41 \quad \text{T} \quad \text{O} \\ \quad \quad \quad \quad \quad \quad 4 \quad 3 \\ \quad \quad \quad \quad \quad \quad - \quad 2 \\ \quad \quad \quad \quad \quad \quad \hline \quad \quad \quad \quad \quad 4 \quad 1 \end{array}$$

$$\begin{array}{r} 2. \quad 38 \quad 14 = 24 \quad \text{T} \quad \text{O} \\ \quad \quad \quad \quad \quad \quad 3 \quad 8 \\ \quad \quad \quad \quad \quad \quad - \quad 1 \quad 4 \\ \quad \quad \quad \quad \quad \quad \hline \quad \quad \quad \quad \quad 2 \quad 4 \end{array}$$

**Exercise**

**Subtract correctly**

a.  $78 - 5$

e.  $53 - 50 =$

i.  $33 - 13 =$

b.  $99 - 12 =$

f.  $66 - 33 =$

j.  $47 - 16 =$

c.  $64 - 40 =$

g.  $49 - 20 =$

d.  $92 - 11 =$

h.  $25 - 15 =$

## Word problems involving subtraction of 2 digit numbers without regrouping

1. Naigaga had 18 oranges. She gave 6 oranges to Okere. How many oranges did she remain with?

1 8 oranges

- 6 Oranges

1 2 oranges remained

2. A farmer had 43 goats on his farm. he sold 10 goats. How many goats did he remain with?

$$\begin{array}{r} 4 \ 3 \text{ goats} \\ - 1 \ 0 \text{ goats} \\ \hline 3 \ 3 \text{ goats} \end{array}$$

### **Exercise**

#### **Read and work out**

1. Jane had 68 bottles. 25 bottles broke. How many remained?
2. A boy had 44 sweets. He gave away 12 sweets to his friend. How many sweets remained?
3. A dog gave birth to 16 puppies. 10 puppies died. How many puppies remained?
4. Nakato bought 35 books. She gave away 13 books. How many books did she remain with?
5. A shopkeeper had 55 pancakes. She sold 15 pan cakes. How many pan cakes did she remain with?

#### **Subtraction of 3 digit numbers without regrouping**

##### **Examples**

$$\begin{array}{r} \text{H} \ \text{T} \ \text{O} \\ 3 \ 4 \ 2 \\ - 1 \ 0 \ 0 \\ \hline 2 \ 4 \ 2 \end{array}$$

$$\begin{array}{r} \text{H} \ \text{T} \ \text{O} \\ 5 \ 3 \ 6 \\ - 1 \ 4 \\ \hline 5 \ 2 \ 2 \end{array}$$

$$\begin{array}{r} \text{H} \ \text{T} \ \text{O} \\ 7 \ 3 \ 8 \\ - 2 \ 2 \\ \hline 7 \ 3 \ 6 \end{array}$$

### **Exercise**

$$\begin{array}{r} 1. \ 4 \ 2 \ 0 \\ - 1 \ 0 \ 0 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \ 5 \ 8 \ 8 \\ - 2 \ 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \ 9 \ 9 \ 9 \\ - 2 \ 3 \ 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \ 6 \ 2 \ 5 \\ - 2 \ 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \ 4 \ 3 \ 8 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \ 9 \ 2 \ 5 \\ - 1 \ 2 \ 5 \\ \hline \end{array}$$

## Word problems involving subtraction of 3 digit numbers without regrouping

### Examples

1. A school nurse bought 350 tablets of Panadol and gave out 20 tablets to pupils. How many tablets did she remain?

$$\begin{array}{r} 5 \ 5 \ 0 \\ - 2 \ 0 \\ \hline 3 \ 3 \ 0 \text{ tablets remained} \end{array}$$

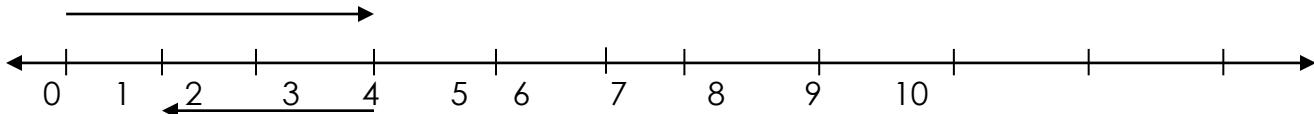
### Exercise

1. Namutebi bought 258 tomatoes 100 tomatoes were bad. How many tomatoes were good?
2. Mugabi had 154 sweets. Amanda stole 12 sweets from him. How many sweets were left?
3. Amanda bought 300 eggs. 200 eggs were bad. How many eggs were good?
4. In a school of 578 pupils, 78 pupils did not come to school on Monday. How many pupils were present on Monday?
5. Find the difference between 872 and 121.
6. What is 530 minus 10?

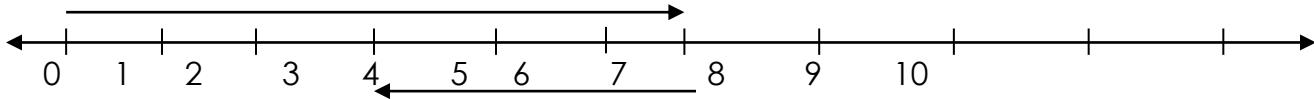
## **Subtracting numbers using a number line**

### Examples

1.  $3 - 2 = 1$



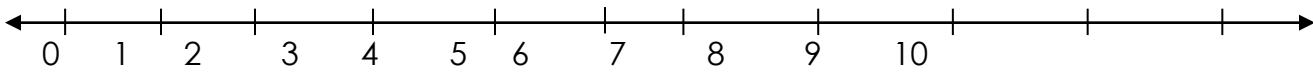
2.  $6 - 3 = 3$



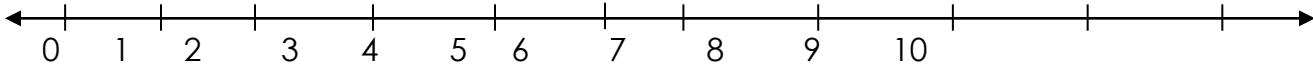
## **Exercise**

1. Subtract the numbers below using a number line

a)  $10 - 4 =$



b)  $7 - 5 =$



## **Counting and writing number symbols from 400-500**

### **Examples**

- 400, 401, 402, 403, 404, 405, 406, 407.....
- 410, 411, 412, 413, 414, 415, .....
- 420, 421, 422, 423, 424, 425, .....
- 430, 431, 432, 433, 434, 435, 436, .....

## **Exercise**

### **Fill in the missing number**

- e) 400, 401, 402, \_\_\_, \_\_\_, 405, 406
- f) 410, 411, \_\_\_, 412, \_\_\_, 414, 415
- g) 420, \_\_\_, 422, 423, \_\_\_, 425, \_\_\_
- h) 450, 451, 452, \_\_\_, 454, 455, \_\_\_

## **GRAPHS**

Reading and interpreting information given on pictograph

### **Examples**

Mary:	
Sarah:	
Rose:	
Peter:	

1. How many balls has Rose?

Rose has the 4 balls

2. Who has the most number of balls?

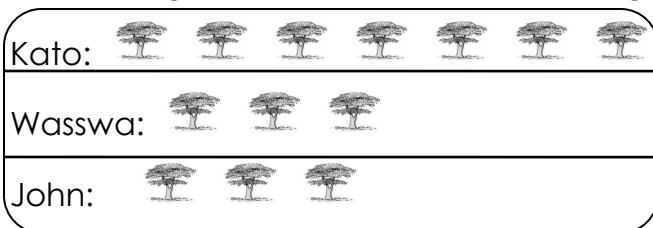
Mary has the most number of balls.

3. How many more balls has Mary than Sarah?

$6 - 2 = 4$  more balls

### Exercise

Study the graph below and answer the given questions

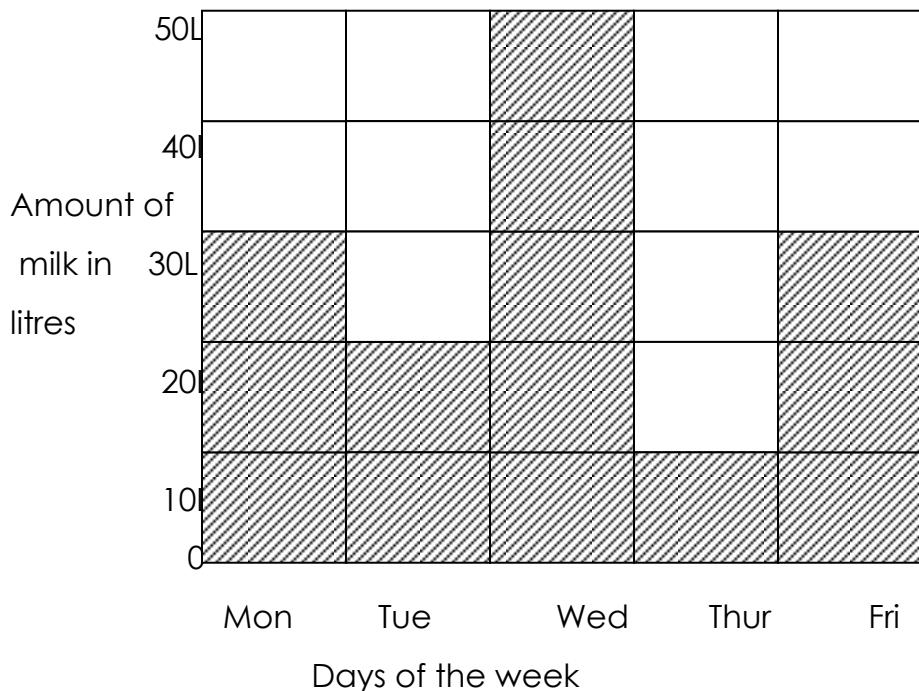


1. How many trees has Wasswa?
2. Who has the least number of trees?
3. Who has the biggest number of
4. How many more trees has Kato than Peter?
5. How many trees do they have altogether?

### READING AND INTERPRETING INFORMATION GIVEN ON BAR GRAPHS

#### Example I

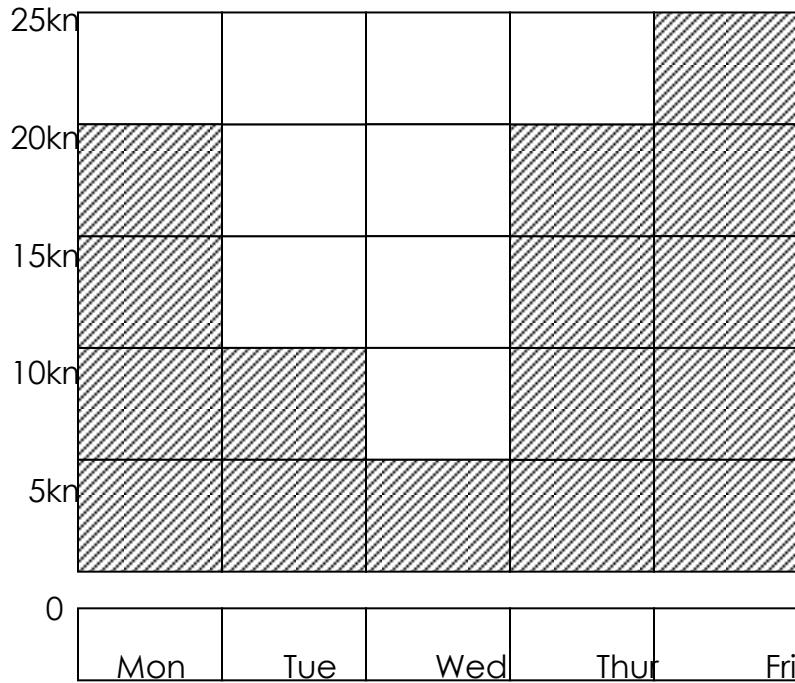
The graph below shows the amount of milk supplied to our school in five days.



- How many milk did our school get on Monday?
- Find the total amount of milk our school got on Wednesday and Friday?
- How many litres of milk did our school get on Monday?

### **Exercise**

**The graph below shows the distance Sarah walked in 5 days. Use it to answer the questions.**



- How many kilometers did Sarah walk on Monday?
- On which day did Sarah walk the shortest distance?
- How many kilometres did Sarah walk on Tuesday and Wednesday?
- In which two days did Sarah walk the same distance?
- How many more kilometers did Sarah walk on Friday than Tuesday?

### **Multiplying whole number by 2 horizontally and vertically without regrouping**

#### **Examples**

1. $0 \times 2 = 0$	2. $6$ $\underline{\times 2}$	3. $3 \quad 3$ $\underline{\times 2}$ $\underline{6 \quad 6}$
$1 \times 2 = 2$		
$2 \times 2 = 4$	12	
$3 \times 2 = 6$	7	
$10 \times 2 = 20$	$\underline{\times 2}$ $\underline{1 \quad 4}$	

## Exercise

### Multiply

1.  $7 \times 2 =$

3.  $5 \times 2 =$

2.  $8 \times 2 =$

4.  $4 \times 2 =$

5.    8

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

8.    3    3

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

6.    9

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

9.    4    2

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

7.    1    2

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

10.    5    3

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

### Word problems involving multiplication of 2 digits numbers by one digit without regrouping

### Examples

1. One fly has 2 wings. How many wings do 3 flies have?

$$8 \times 2 = 16$$

They have 16 wings

2. One bicycle has 2 wheels. How many wheels do 10 bicycles have?

$$\begin{array}{r} 1 \ 0 \\ \times 2 \\ \hline 2 \ 0 \end{array}$$

10 bicycles have 20 wheels

## Exercise

### Read and work out

1. One rabbit has 2 ears. How many ears do 14 rabbits have?
2. If there are 2 balls in each box, how many balls are there in 23 boxes?
3. One girl has 2 eyes. How many eyes do 43 girls have?
4. If there are 2 eggs in each nest, how many eggs are there in 54 nests?

## Multiplication of 2 digit numbers by one digit without regrouping

### Examples

$$0 \times 3 = 0$$

$$9$$

$$5 \quad 3$$

$$8$$

$$3 \quad 3$$

$$1 \times 3 = 3$$

$$\underline{\times 3}$$

$$\underline{\times \quad 3}$$

$$\underline{\times \quad 3}$$

$$\underline{\times \quad 3}$$

$$2 \times 3 = 6$$

$$\underline{27}$$

$$\underline{1 \ 5 \ 9}$$

$$\underline{2 \ 4}$$

$$\underline{9 \ 9}$$

$$3 \times 3 = 9$$

$$4 \times 3 = 12$$

### Exercise

$$1. \quad 7$$

$$\underline{\times 3}$$

$$2. \quad 1 \quad 0$$

$$\underline{\times \quad 3}$$

$$3. \quad 4 \quad 3$$

$$\underline{\times \quad 3}$$

$$4. \quad 7 \quad 0$$

$$\underline{\times \quad 3}$$

$$5. \quad 8 \times 3 =$$

$$6. \quad 11 \times 3 =$$

$$7. \quad 7 \quad 3$$

$$8. \quad 8 \quad 0$$

$$\underline{\times \quad 3}$$

$$\underline{\times \quad 3}$$

$$9. \quad 6 \quad 3$$

$$\underline{\times 3}$$

$$10. \quad 6 \quad 2$$

$$\underline{\times \quad 3}$$

$$\underline{\quad \quad \quad}$$

$$\underline{\quad \quad \quad}$$

### Word problems involving multiplication of 3 without regrouping

### Examples

1. If there are 3 pencils in each tin, how many pencils are there in 52 tins?

$$\begin{array}{r} 5 \quad 2 \\ \times \quad 3 \\ \hline 1 \ 5 \ 6 \text{ pencils} \end{array}$$

2. A stool has 3 legs. How many legs are there on 21 stools?

$$\begin{array}{r} 2 \quad 1 \\ \times \quad 3 \\ \hline 6 \quad 3 \quad \text{legs} \end{array}$$

### Exercise

1. Each boy has 3 cows. How many cows do 13 boys have?
2. There are 3 beads on each string. How many beads are there on 30 strings?

3. If each girl has 3 pens, how many pens will 9 girls have?  
 4. If there are 3 cups on each tray, how many cups are there on 51 trays?

### **Multiplying whole numbers by 4 without regrouping**

#### **Examples:**

$$\begin{array}{r} 0 \times 4 = 0 \\ 1 \times 4 = 4 \\ 2 \times 4 = 8 \\ 3 \times 4 = 12 \end{array}$$

$$\begin{array}{r} 7 \\ \times 4 \\ \hline 28 \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline 36 \end{array}$$

#### **Exercise**

1. $2 \times 4 =$	2. $7 \times 4 =$	3. $9 \times 4 =$
4. $\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$	5. $\begin{array}{r} 1 \quad 0 \\ \times 4 \\ \hline \end{array}$	6. $\begin{array}{r} 3 \quad 2 \\ \times 4 \\ \hline \end{array}$
7. $\begin{array}{r} 4 \quad 1 \\ \times 4 \\ \hline \end{array}$	8. $\begin{array}{r} 5 \quad 2 \\ \times 4 \\ \hline \end{array}$	9. $\begin{array}{r} 6 \quad 0 \\ \times 4 \\ \hline \end{array}$
10. $\begin{array}{r} 2 \quad 2 \\ \times 4 \\ \hline \end{array}$	11. $\begin{array}{r} 3 \quad 0 \\ \times 4 \\ \hline \end{array}$	12. $\begin{array}{r} 4 \quad 0 \\ \times 4 \\ \hline \end{array}$

#### **Word problems involving multiplying numbers by 4**

#### **Examples**

1. One family has 4 people. How many people are there in 5 such families?

$$\begin{array}{r} 5 \\ \times 4 \\ \hline 20 \text{ people} \end{array}$$

2. One car has 4 wheels. How many wheels do 20 cars have?

$$\begin{array}{r} 20 \\ \times 4 \\ \hline 80 \text{ wheels} \end{array}$$

## **Exercise**

### **Read and work out**

1. A table has 4 legs. How many legs do 10 tables have?
2. If there are 4 cups on each tray, how many cups are there on 9 trays?
3. If there are 4 leaves on each branch, how many leaves are there on 31 branches?

### **Multiplying numbers by 5 without regrouping**

#### **Examples**

$$1 \times 5 = 5$$

$$\begin{array}{r} 3 \quad 1 \\ \times \quad 5 \\ \hline \end{array}$$

$$7$$

$$2 \times 5 = 10$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

$$\underline{\times 5}$$

$$3 \times 5 = 15$$

$$\begin{array}{r} 1 \quad 5 \quad 5 \\ \hline \end{array}$$

$$\underline{-35}$$

#### **Exercise**

$$1. \quad 1 \quad 0$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

$$2. \quad 4 \quad 1$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

$$3. \quad 5 \quad 0$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

$$4. \quad 2 \quad 1$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

$$5. \quad 3 \quad 0$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

$$6. \quad 4 \quad 0$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

$$7. \quad 7 \quad 1$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

$$8. \quad 1 \quad 1$$

$$\begin{array}{r} \underline{x} \quad 5 \\ \hline \end{array}$$

### **Word problems involving multiplying whole numbers by 5**

#### **Examples**

1. There are 5 toes on each foot. How many toes do 10 feet have?

$$\begin{array}{r} 1 \quad 0 \\ \times \quad 5 \\ \hline 5 \quad 0 \text{ toes} \end{array}$$

2. If there are 5 rabbits in each cage, how many rabbits are there in 21 cages?

$$\begin{array}{r} 2 \quad 1 \\ \times \quad 5 \\ \hline 10 \quad 5 \text{ rabbits} \end{array}$$

#### **Exercise**

1. If there are 5 boys in each class, how many boys are there in 9 classes?
2. There are 5 fingers on each hand. How many fingers are there on 11 hands?
3. If each family has 5 people, how many people are there in 40 families?

4. If there are 5 girls in each class, how many girls are there in 30 classes?

### Multiplying 3 digit numbers by one digit without regrouping

#### Examples

1. $2 \times 2 = 4$	2. $1\ 3\ 0$	$0 \times 3 = 0$
$3 \times 2 = 6$	$\begin{array}{r} x\ 3 \\ \hline \end{array}$	$3 \times 3 = 9$
$2 \times 2 = 4$	$\begin{array}{r} 3\ 9\ 0 \\ \hline \end{array}$	$1 \times 3 = 3$

#### Exercise

1. $2\ 0\ 0$	2. $3\ 2\ 1$	3. $5\ 1\ 2$
$\begin{array}{r} x\ 5 \\ \hline \end{array}$	$\begin{array}{r} x\ 3 \\ \hline \end{array}$	$\begin{array}{r} x\ 2 \\ \hline \end{array}$
4. $6\ 2\ 1$	5. $4\ 0\ 0$	6. $7\ 2\ 0$
$\begin{array}{r} x\ 4 \\ \hline \end{array}$	$\begin{array}{r} x\ 2 \\ \hline \end{array}$	$\begin{array}{r} x\ 4 \\ \hline \end{array}$
7. $1\ 0\ 0$	8. $2\ 1\ 0$	9. $6\ 3\ 0$
$\begin{array}{r} x\ 6 \\ \hline \end{array}$	$\begin{array}{r} x\ 4 \\ \hline \end{array}$	$\begin{array}{r} x\ 2 \\ \hline \end{array}$

### Counting and writing number symbols from 500-600

#### Examples

- 500, 501, 502, 503, 504, 505, 506, 507.....
- 510, 511, 512, 513, 514, 515, .....
- 520, 521, 522, 523, 524, 525, .....
- 530, 531, 532, 533, 534, 535, 536, .....

#### Exercise

#### Fill in the missing number

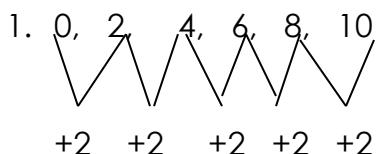
- i) 500, 501, 502, \_\_\_, \_\_\_, 505, 506
- j) 510, 511, \_\_\_, 512, \_\_\_, 514, 515
- k) 520, \_\_\_, 522, 523, \_\_\_, 525, \_\_\_

## NUMBER PATTERNS AND SEQUENCES

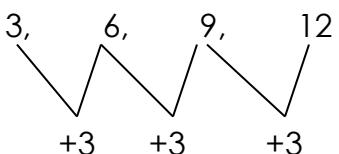
### NUMBER SEQUENCES

Counting in twos

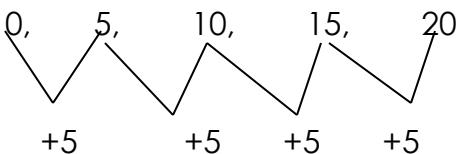
Examples

1. 0, 2, 4, 6, 8, 10  


2. Counting in threes

- 

3. Counting in fives

- 

4. Counting in tens

- $10, 20, 30, 40$   
 $11, 21, 31, 41$

### Exercise

#### Fill in the missing numbers

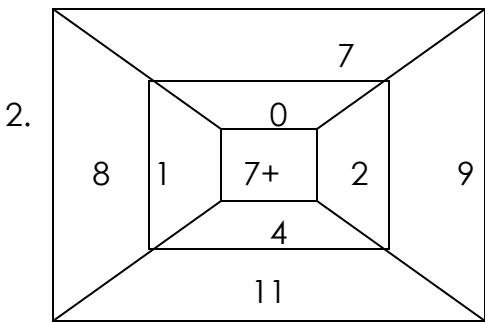
- a. 0, 2, 4, \_\_\_, 8, \_\_\_ 12
- b. 3, 6, \_\_\_, 12, 15, \_\_\_, 21
- c. 0, 5, 10, \_\_\_, 20, \_\_\_
- d. 30, 40, \_\_\_, 60, 70, \_\_\_, 90, 100
- e. 31, 41, 51, \_\_\_, 71, 81, \_\_\_

### Completing addition tables

Examples

1. 

+	1	2
3	4	5
4	5	6
5	6	7



$$7 + 2 = 9$$

$$7 + 1 = 8$$

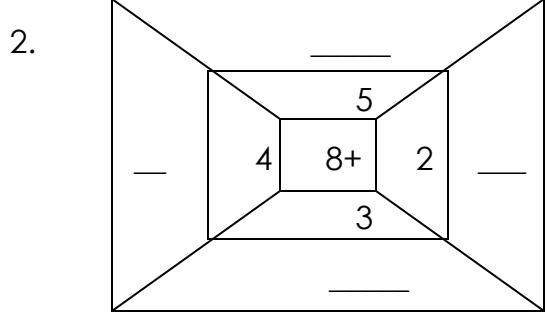
$$7 + 4 = 11$$

## Exercise

Complete the given tales correctly

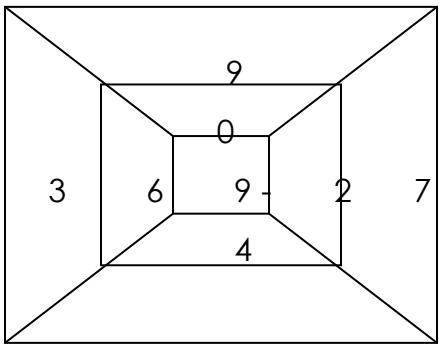
1.

+	1	2
1		
2		
3		
4		



Completing subtraction tables

Examples



$$9 - 2 = 7$$

$$9 - 4 = 5$$

$$9 - 0 = 9$$

Completing multiplication tables

Examples

1.

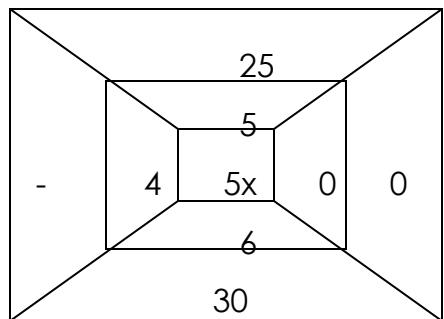
x	2
3	6
4	8
5	10

$$3 \times 2 = 6$$

$$5 \times 2 = 10$$

$$4 \times 2 = 8$$

2.



$$5 \times 0 = 0$$

$$5 \times 6 = 30$$

$$5 \times 4 = 20$$

$$5 \times 6 = 30$$

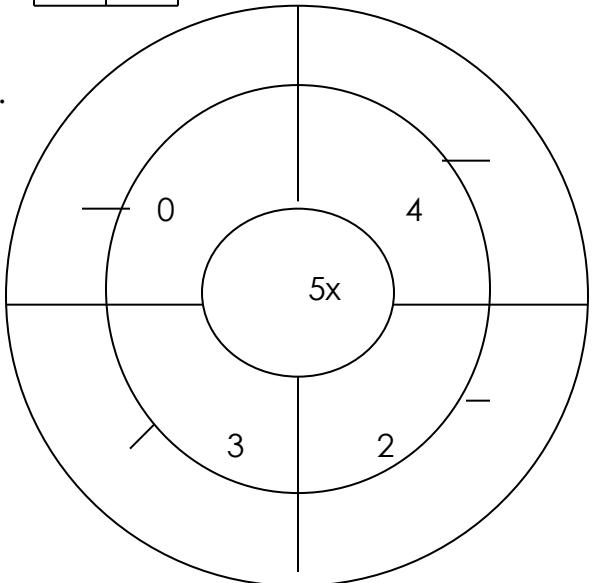
### Exercise

Complete the following tables correctly

1.

x	3
3	—
4	—
5	—
6	—
7	21

2.



End