

New

MathsWiz

A Course in Mathematics

As per
NCF 2023

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1

Looking Back

Warm up

Numbers from 1 to 10

Complete each sentence of the given rhyme by filling in the blanks with the correct number name.

Vocabulary

- | | |
|---------------|----------------|
| ❖ Before | ❖ Ordinals |
| ❖ Between | ❖ Greater than |
| ❖ After | ❖ Smaller than |
| ❖ Number line | ❖ Equal to |

Subject Link → English

One, ~~two~~ buckle my shoe.

1, 2

~~Three~~ Four, shut the door.

Five, ~~six~~ pick up the sticks.

3, 4

5, 6

~~seven~~ Eight, lay them straight.

7, 8

Nine, ~~ten~~ a big fat hen.

9, 10

Ten, Six, Three,
Seven, Two

7

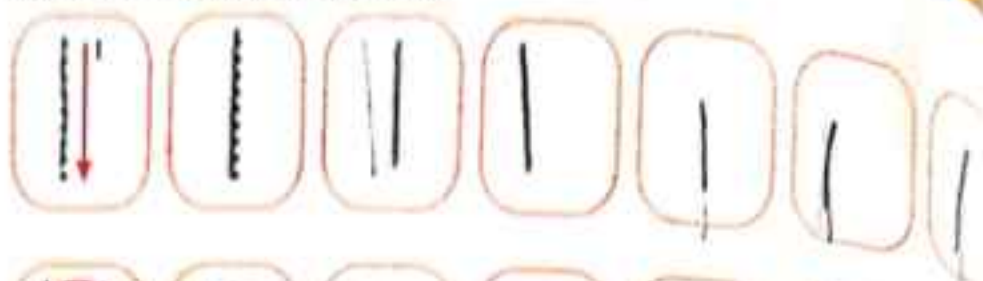
Exercise 1A

1. Count and write the numbers from 1 to 10.



1

One



2

Two



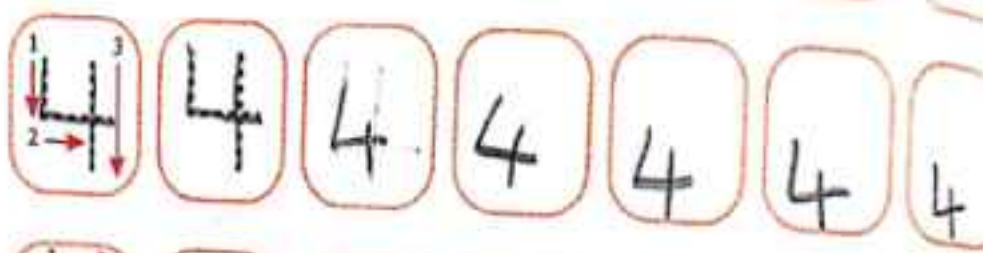
3

Three



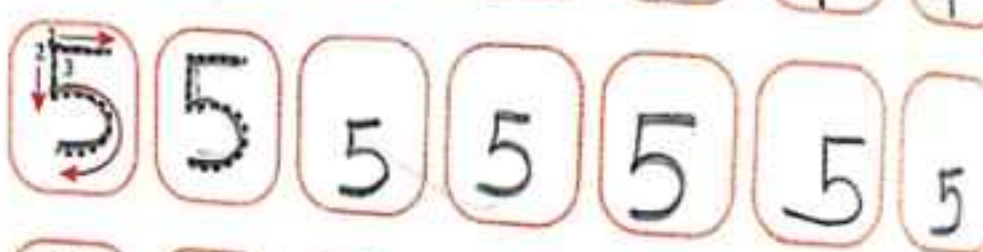
4

Four



5

Five



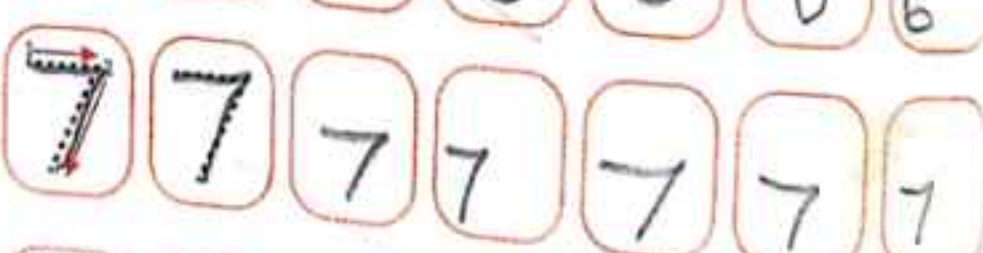
6

Six



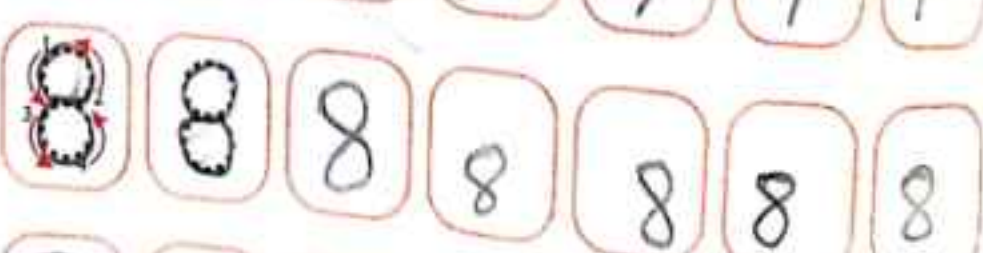
7

Seven



8

Eight



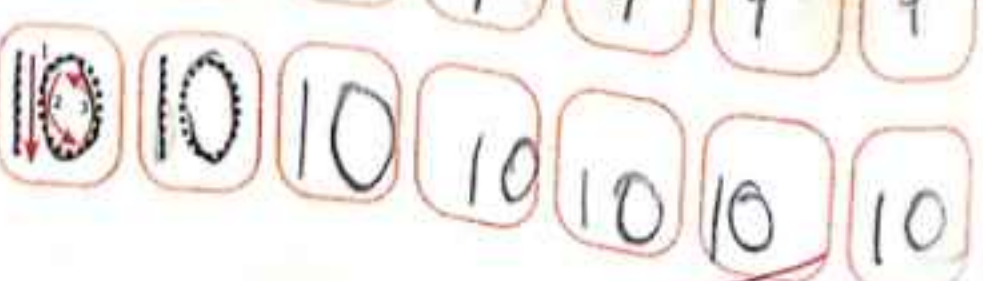
9

Nine



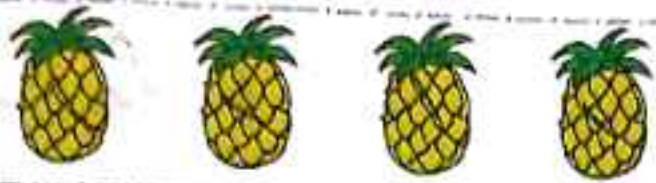

















10

Ten



2. Count the fruits in each row and match with the correct number and number name. One has been done for you.

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

3. Count the fingers. Circle the correct number. Write the number name. *One has been done for you*

Number

Number name

Ten-frame



4
①
2

One



6
5
④

four



③
5
2

three



7
⑥
8

six



4
10
⑤

five



9
8
⑩

ten



⑦
8
6

seven



1
②
3

two



7
8
⑨

nine



9
⑧
10

eight



Activity

HW



Read the number in each balloon and colour the balloons as asked.

1 = Yellow

2 = Red

3 = Pink

4 = Green

5 = Blue

6 = Purple

7 = Orange

8 = Brown

9 = Black

10 = White



Class Work

- How many noses do you have?
- How many legs does a table have?
- How many arms does an octopus have?



① One
④ four
⑧ eight

THE NUMBER ZERO



Archana has 5 pencils.



She gives one pencil each to 5 children in her class.



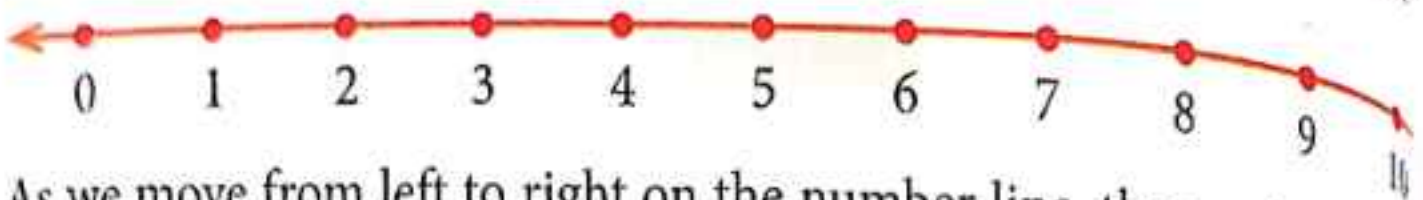
Now, Archana is left with **no** pencil or **zero** pencil.



Thus, **zero** means *absence of something* or simply **nothing**. We represent the number zero by **0**.

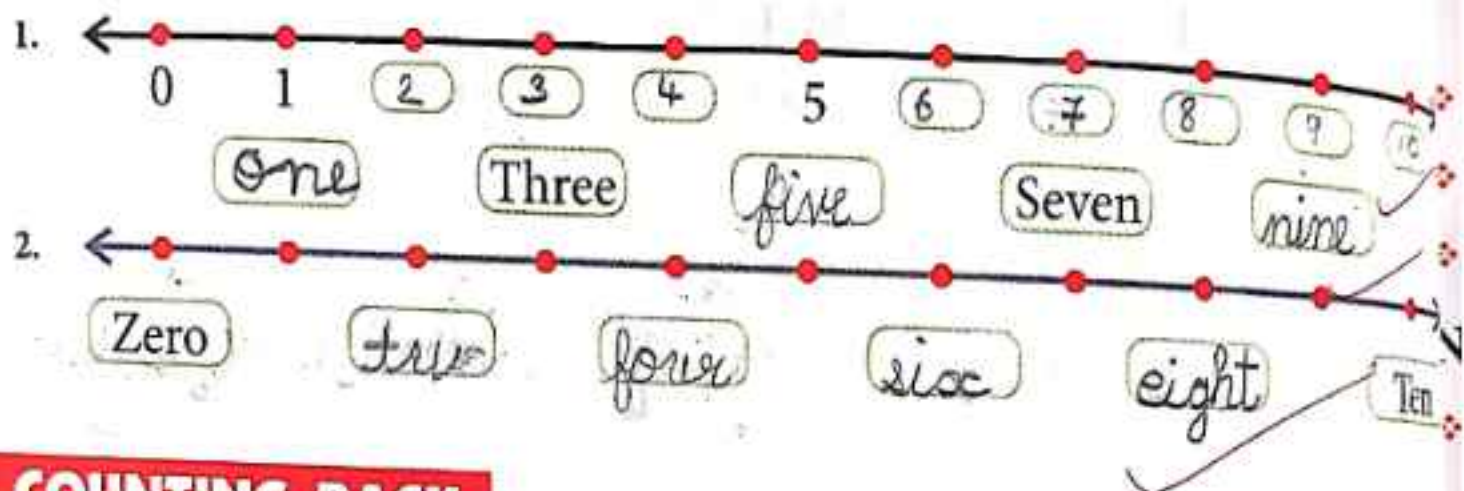
THE NUMBER LINE

A line with numbers placed in order is called a **number line**. The starting point (number) of the number line shown below is 0 and it shows numbers from 0 to 10.



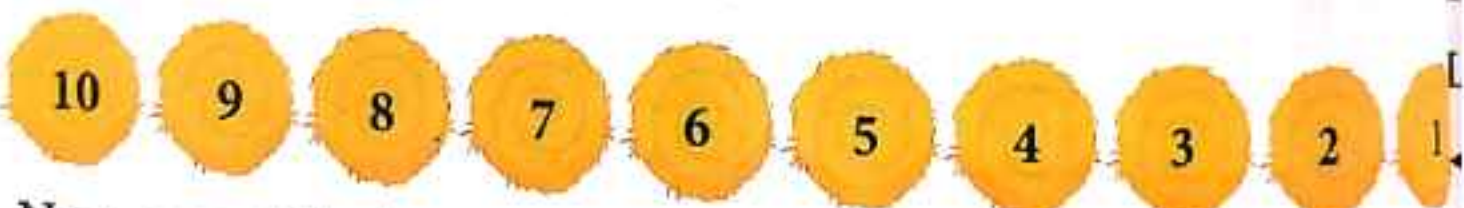
As we move from left to right on the number line, the numbers become bigger. Numbers to the left of a given number are smaller. Numbers to the right of a given number are bigger.

Fill in the boxes for the following number lines.

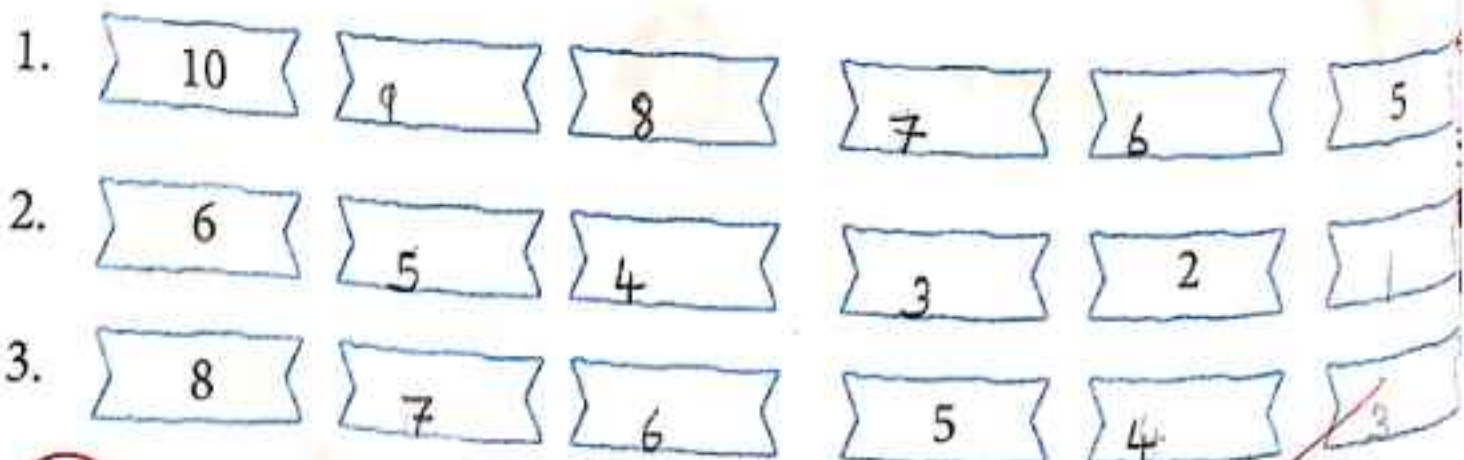


COUNTING BACK

Read the numbers from 10 to 1.



Now, count backwards from the given numbers in each of the following.



Exercise 1B

Look at this number strip and answer the questions.



1. Write the number just before the given number in each of the following

- (a) ~~0~~ ~~1~~ (b) ~~6~~ ~~7~~ (c) ~~3~~ ~~4~~ (d) ~~9~~ ~~10~~

2. Write the number just after the given number in each of the following

- (a) ~~5~~ ~~6~~ (b) ~~2~~ ~~3~~ (c) ~~6~~ ~~7~~ (d) ~~8~~ ~~9~~

3. Write the number between the given numbers.

- (a) ~~2~~ ~~3~~ ~~4~~ (b) ~~7~~ ~~8~~ ~~9~~ (c) ~~8~~ ~~9~~ ~~10~~ (d) ~~5~~ ~~6~~

4. Fill in the blanks.

- (a) 7 is between ~~6~~ and ~~8~~.
(c) 8 is just after ~~7~~.

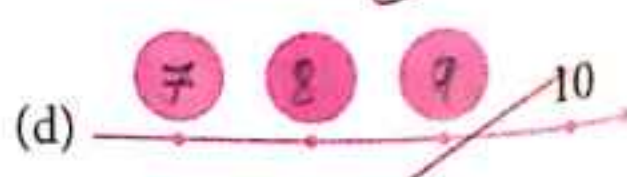
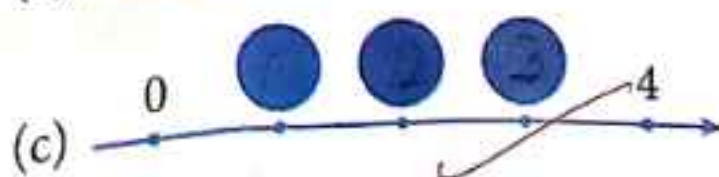
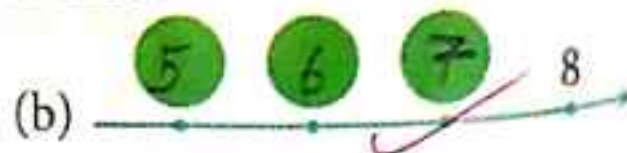
- (b) 1 is between ~~0~~ and ~~2~~.
(d) 2 is just before ~~3~~.

5. Write all the numbers between:

- (a) ~~3 and 6~~ ~~4~~ ~~5~~
(b) ~~5 and 9~~ ~~6~~ ~~7~~ ~~8~~
(c) ~~3 and 10~~ ~~4~~ ~~5~~ ~~6~~ ~~7~~ ~~9~~ ~~8~~



6. Write the missing numbers on the number line.



COMPARING NUMBERS

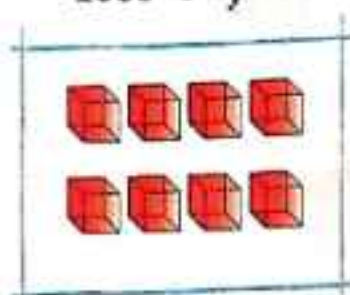
More, Less and Equal

1. Tick (✓) the set that has more objects.


☐

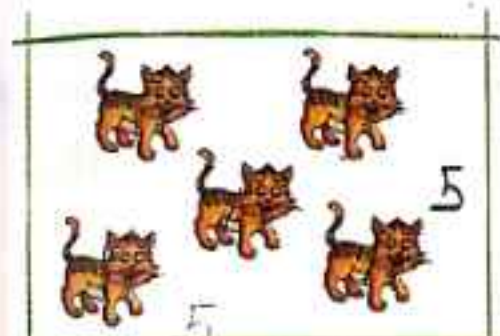
☒

2. Tick (✓) the set that has less objects.

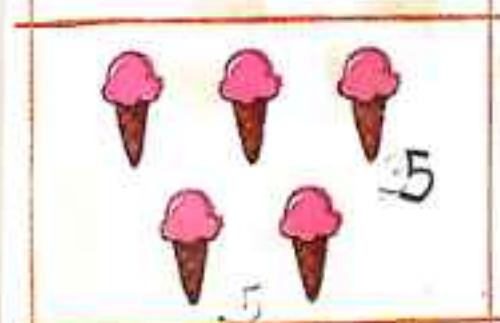

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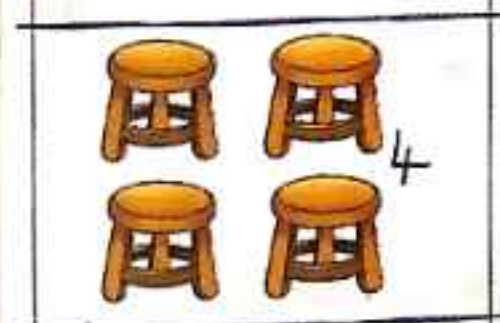
3. Do the following sets have the same number of objects?
Tick (✓) Yes or No.



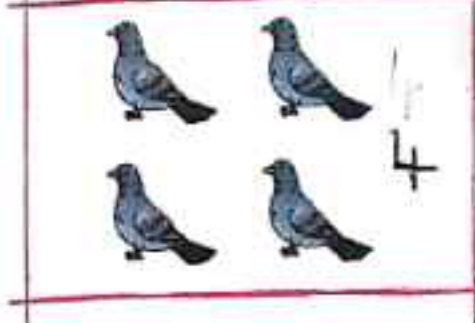
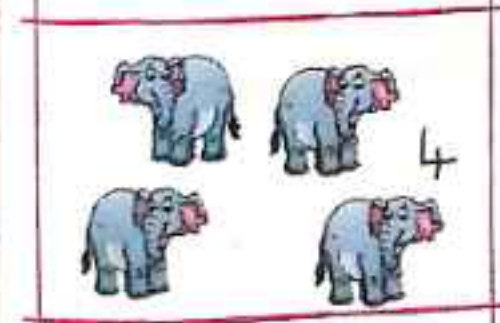
Yes	No
-----	----



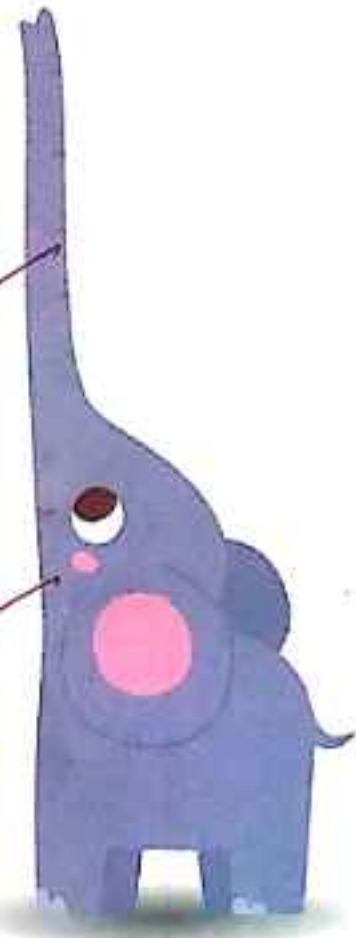
Yes	No
-----	----



Yes	No
-----	----



Yes	No
-----	----

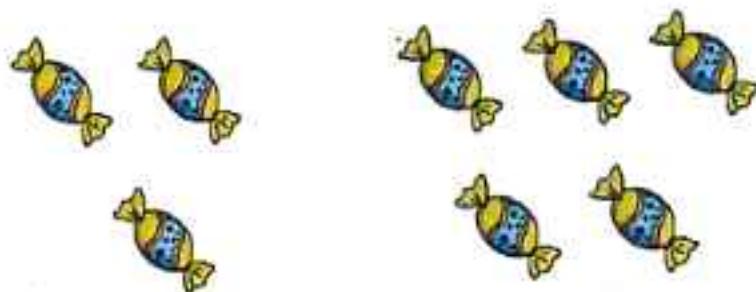


Exercise 1C

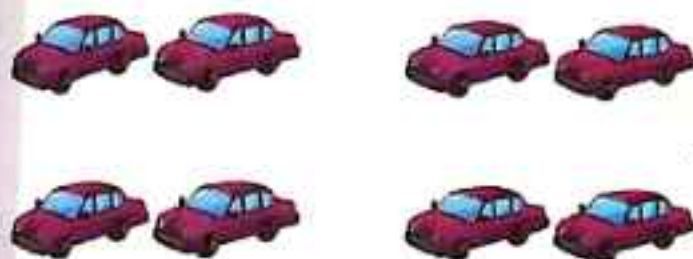
1. Write the correct symbol $=$, $>$ or $<$ to make each sentence true. One has been done for you.



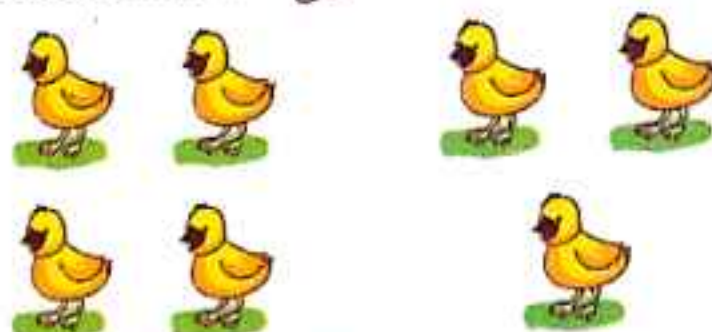
$$4 > 1$$



$$3 < 5$$



$$4 = 4$$



$$4 > 3$$

2. Fill in the blank shapes with the correct sign $=$, $>$ or $<$.

$$9 < 10$$

$$6 = 6$$

$$9 > 5$$

$$7 > 6$$

$$1 > 0$$

$$0 < 4$$

$$5 = 5$$

$$4 < 9$$

$$6 > 4$$

3. Tick (\checkmark) the smallest number.

$$3 \quad 5 \quad \checkmark$$

$$\cancel{3} \quad 3 \quad 7$$

$$10 \quad \cancel{4} \quad 9$$

4. Tick (\checkmark) the largest number.

$$\cancel{6} \quad 6 \quad 5$$

$$\cancel{8} \quad 6 \quad 4$$

$$2 \quad 0 \quad \checkmark$$

INCREASING AND DECREASING ORDERS

Increasing Order

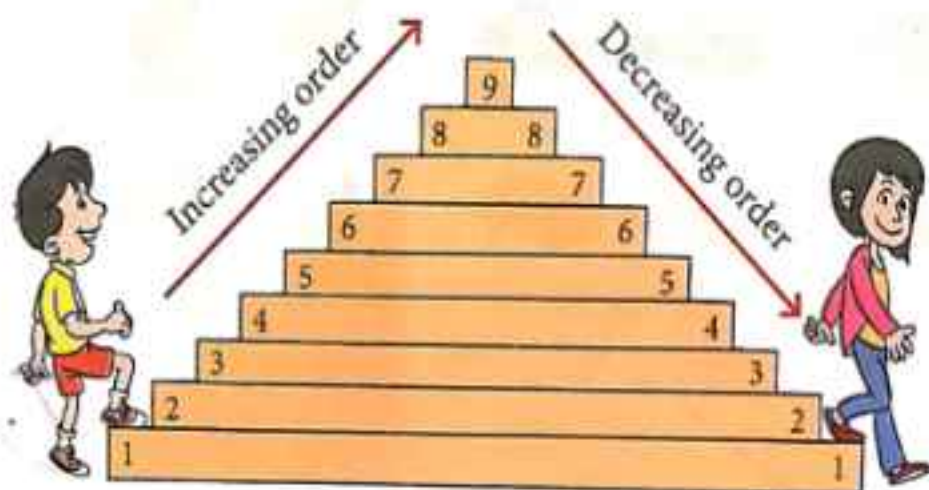
Numbers in increasing order means arranging them from the small to the greatest.

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 are in increasing order.

Decreasing Order

Numbers in decreasing order means arranging them from the great to the smallest.

10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0 are in decreasing order.



Exercise 1D

1. Write in increasing order.

(a) $\{1, 5, 0, 8, 7, 10\}$



0 1 5 7 8 10

(b) $\{3, 9, 6, 8, 5, 2\}$



2 3 5 6 8 9

(c) $\{4, 8, 7, 9, 2, 1\}$



1 2 4 7 8 9

2. Write in decreasing order.

(a) $\{2, 5, 8, 1, 10, 6\}$



10 8 6 5 2 1

(b) $\{9, 4, 7, 3, 8, 0\}$



9 8 7 4 3 0

(c) $\{5, 8, 1, 9, 6, 3\}$

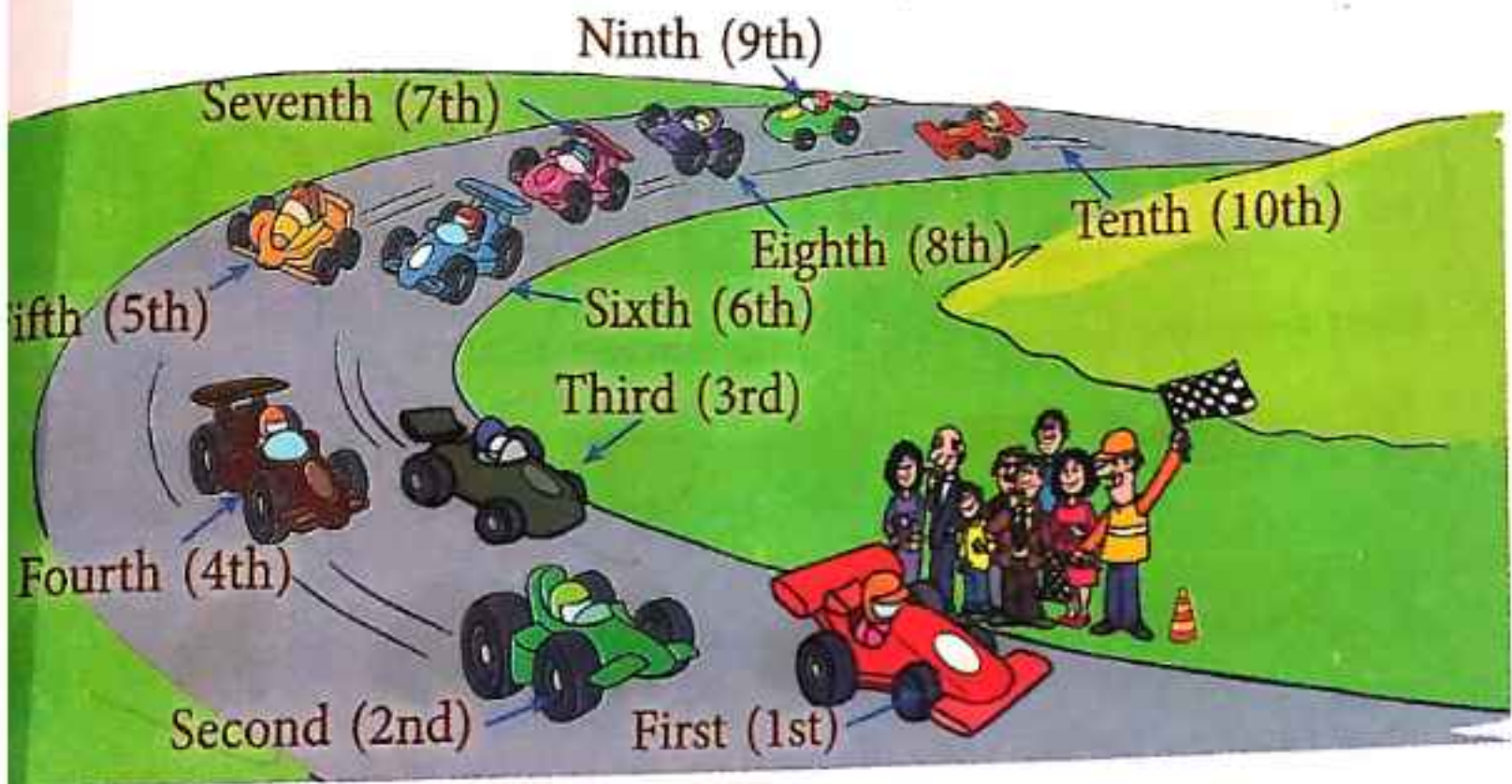


9 8 6 5 3 1

KNOWING ORDINALS

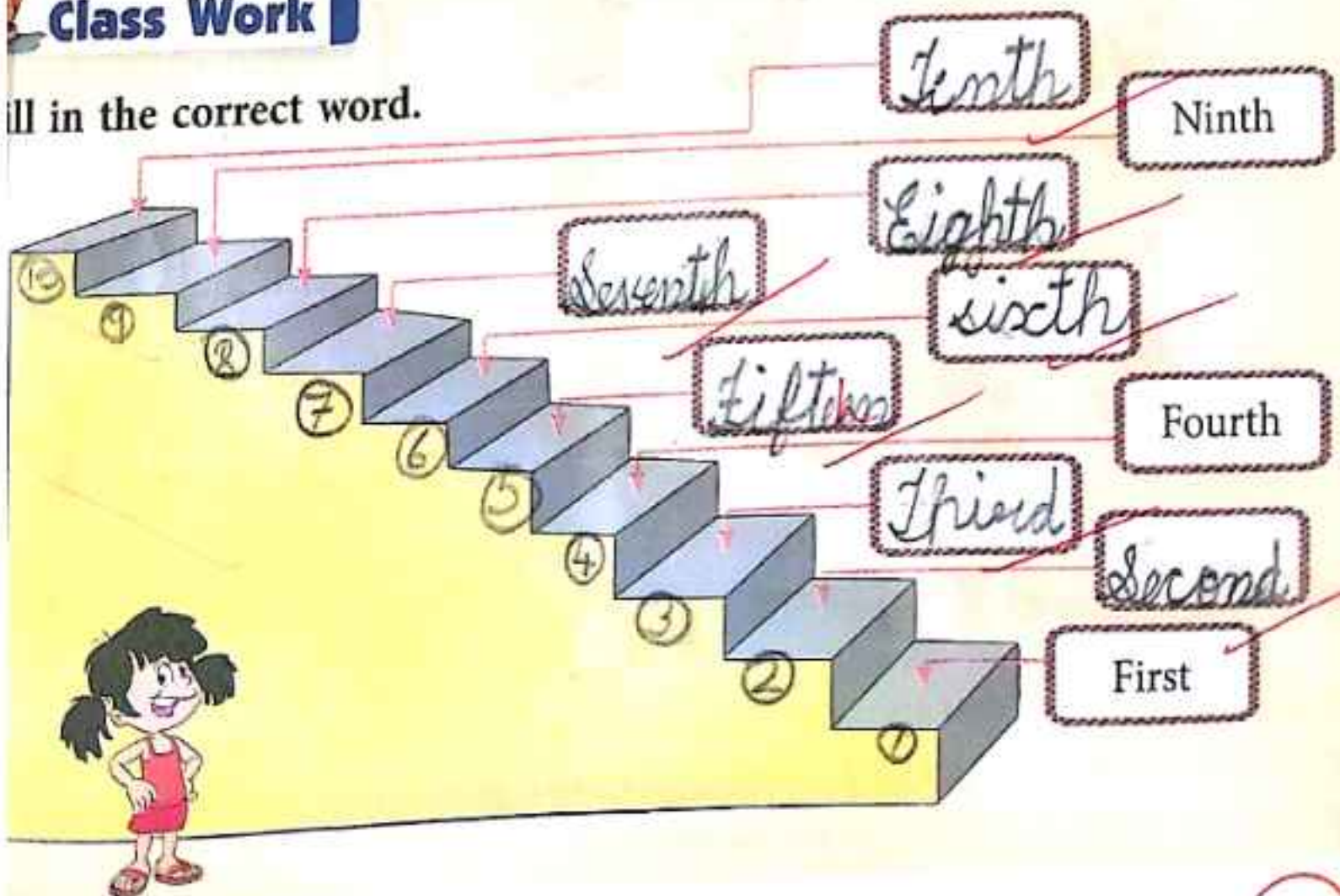
Numbers that tell the position of something are called **ordinal numbers** or simply **ordinals**.

Look at the scene of car racing. The red car is first (1st), the green car is second (2nd) and the black car is third (3rd) and so on.



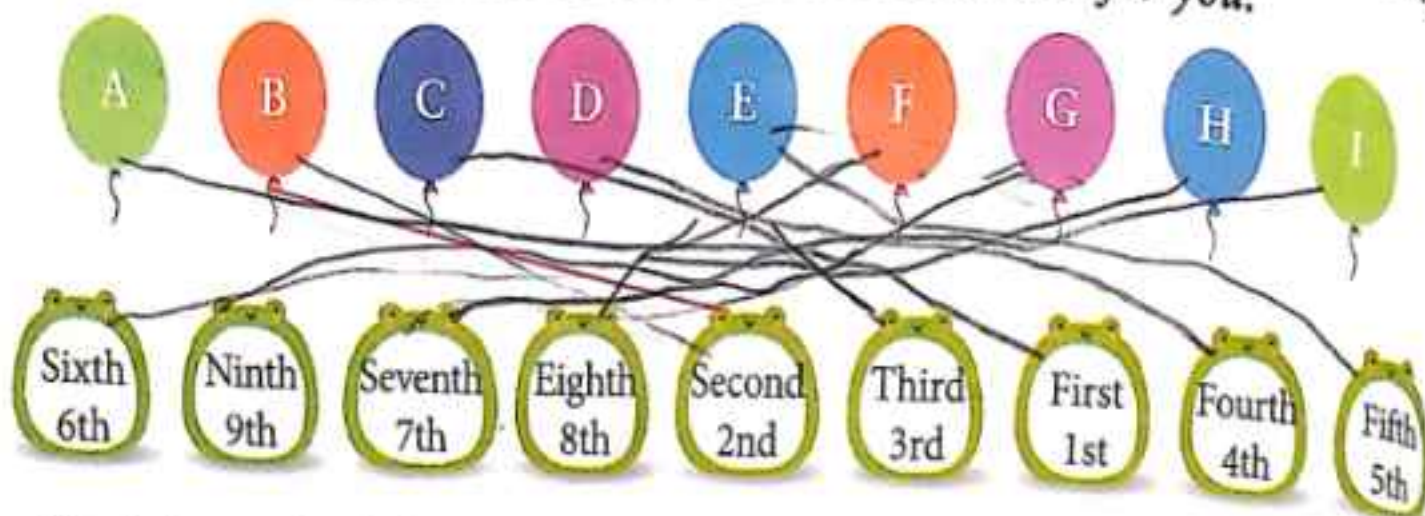
Class Work

Fill in the correct word.



Exercise 1E

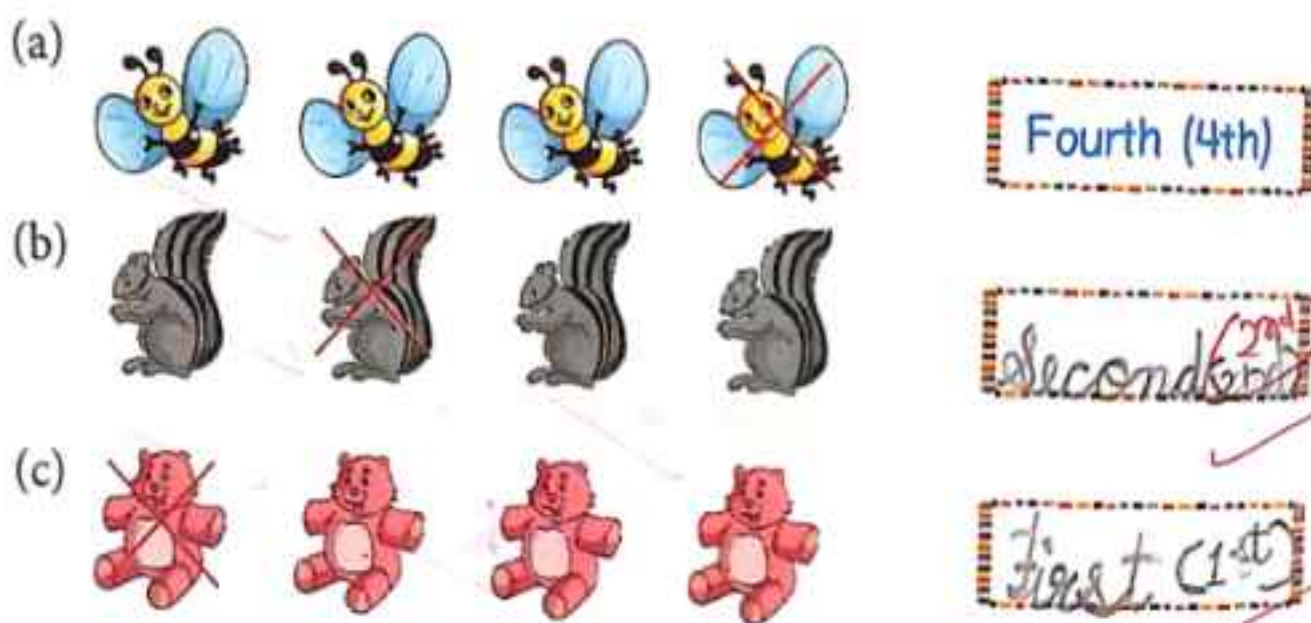
1. Match the letters of the alphabet to their ordinals. A is the first letter, B is the second letter and so on. One has been done for you.



2. Start from the left and tick (✓) the correct picture.



3. Start from the left and write the word for the position of the picture marked X.



Challenge!

21st CS



There are 8 planets that move around the Sun in our Solar System. Earth is the third planet from the Sun and Saturn is the sixth planet from the Sun. How many planets are there between the Earth and Saturn? 2

ADDITION WITHIN TEN

Addition means **combining** or **joining** things.

There are 3 boys playing ball.

There are 4 girls jumping rope.

How many children are playing in all?

We can represent 3 boys and 4 girls as:

(B) (B) (B) (G) (G) (G) (G)

Counting together, we have 7 children in all.

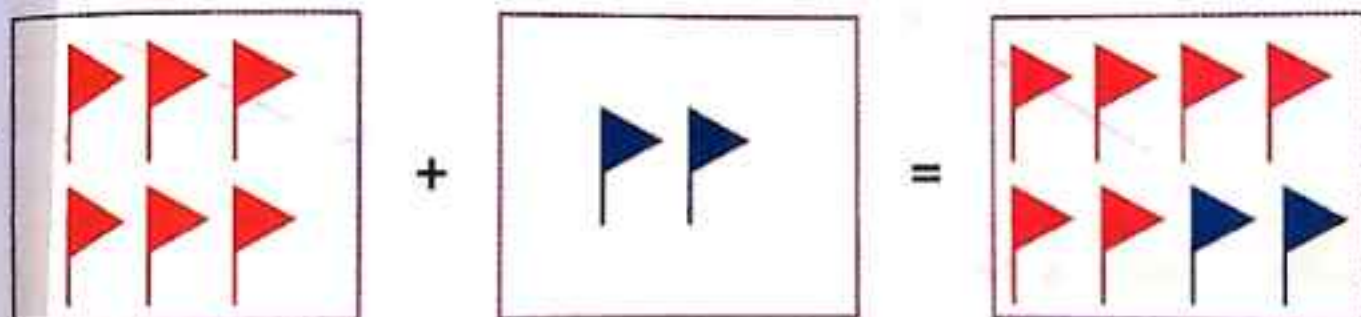
In short, we write this as: $3 + 4 = 7$ and read as

3 plus 4 equals 7 or **3 and 4 are seven.**

Note: '+' is the sign of addition and $3 + 4 = 7$ is an **addition fact**.

Example: There are 6 red flags and there are 2 blue flags. How many flags are there altogether?

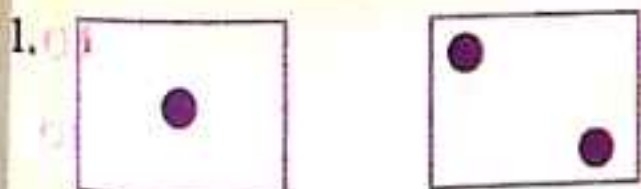
Solution: Pictorially this can be represented as:



$$6 + 2 = 8$$

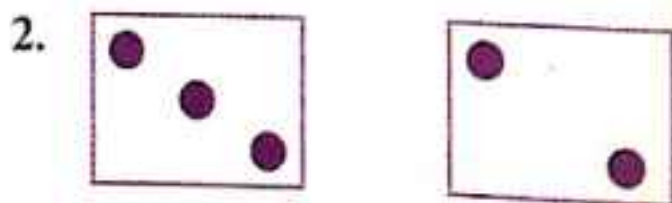
There are 8 flags in all.

Class Work



How many dots altogether?

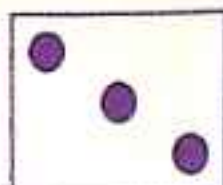
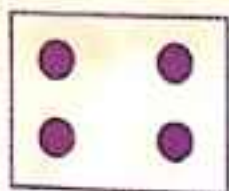
3



How many dots altogether?

5

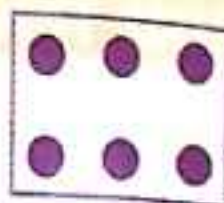
3.



How many dots altogether?

~~7~~

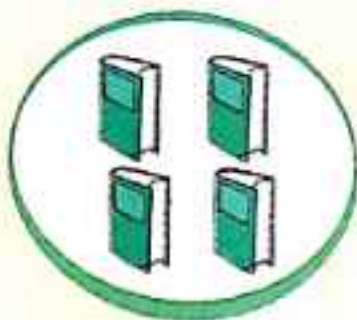
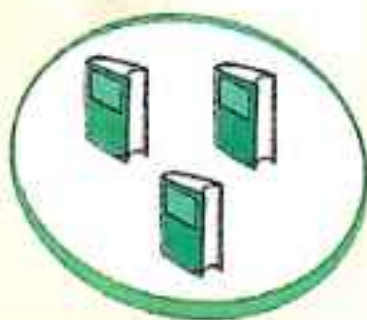
4.



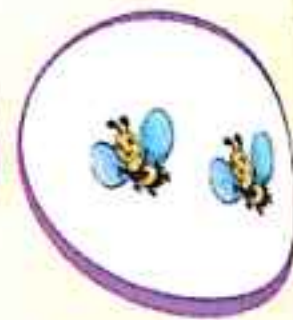
How many dots altogether?

~~8~~

5. Count and complete the addition fact.



$$3 + 4 = 7$$



$$6 + 2 = 8$$



$$2 + 5 = 7$$



$$4 + 4 = 8$$

VERTICAL ADDITION

Count and add. One has been done for you.

1.



3
+ 2
5

3 plus 2 equals 5.
3 and 2 are 5.

2.



6
+ 4
10

6 plus 4 equals 10.
6 and 4 are 10.

3.



$$\begin{array}{r} 4 \\ + 1 \\ \hline 5 \end{array}$$

4 plus 1 equals 5

4 and 1 are 5

4.



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

5 plus 3 equals 8

5 and 3 are 8

Class Work

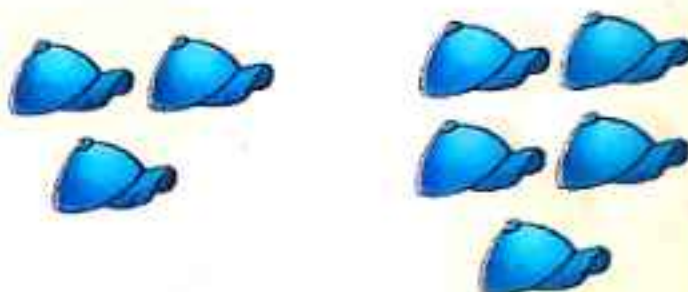
Count the objects and complete the addition facts.

1.



$$4 + 2 = \boxed{6}$$

2.



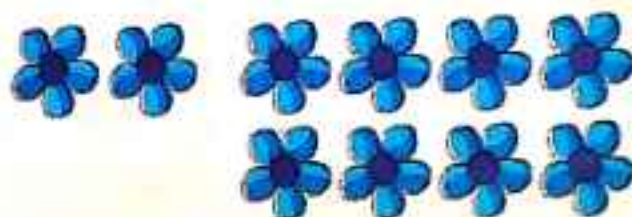
$$3 + 5 = \boxed{8}$$

3.



$$\boxed{7} + \boxed{2} = \boxed{9}$$

4.



$$\boxed{2} + \boxed{8} = \boxed{10}$$

5.



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

6.



$$\begin{array}{r} \boxed{4} \\ + \boxed{4} \\ \hline \boxed{8} \end{array}$$

7.



+

1
7
8

8.

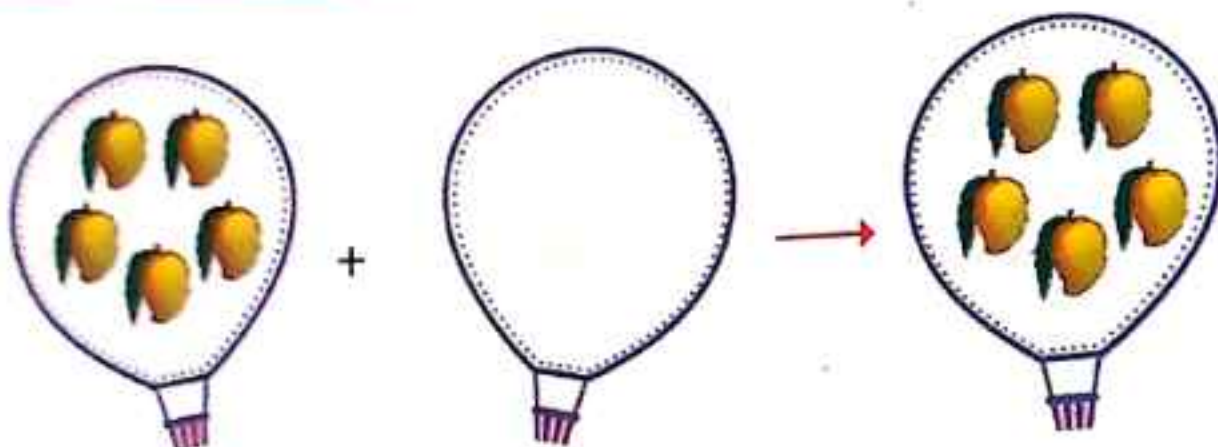


+

6
3
9

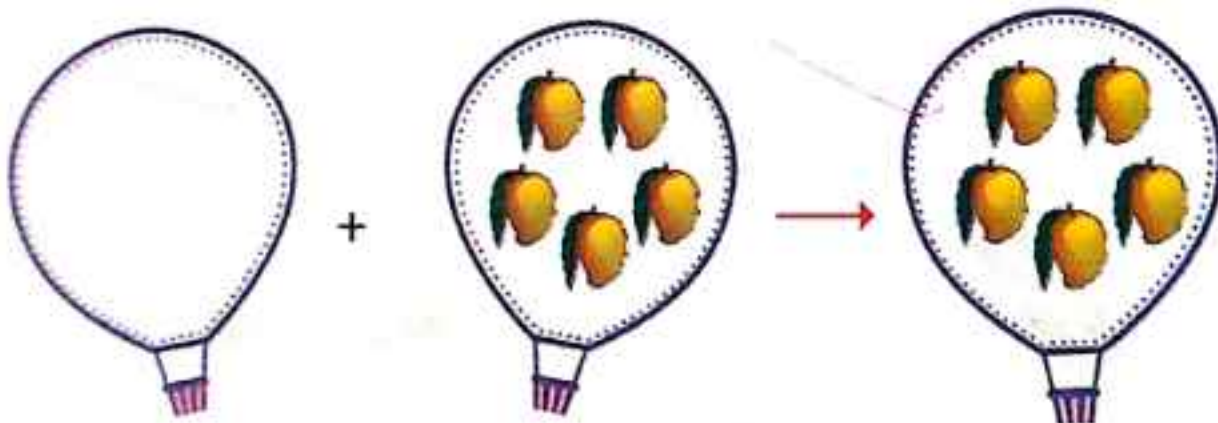
1.

ZERO IN ADDITION



$$5 + 0 = 5$$

2.



$$0 + 5 = 5$$

The sum of zero and any other number is that number itself.



Class Work

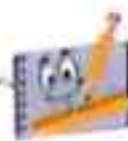
$$1. \quad 3 + 0 = 3$$

$$2. \quad 0 + 7 = 7$$

$$3. \quad 1 + 0 = 1$$

$$4. \quad 0 + 4 = 4$$

Exercise 1F



Add by drawing lines. One has been done for you.

(a) $8 + 1 = 9$

(b) $5 + 3 = 8$

(c) $4 + 0 = 4$

(d) $5 + 5 = 10$

(e) $1 + 9 = 10$

(f) $3 + 4 = 7$

Add vertically. One has been done for you.

(a)
$$\begin{array}{r} 4 \\ + 4 \\ \hline 8 \end{array}$$

(b)
$$\begin{array}{r} 4 \\ + 3 \\ \hline 7 \end{array}$$

(c)
$$\begin{array}{r} 2 \\ + 7 \\ \hline 9 \end{array}$$

(d)
$$\begin{array}{r} 5 \\ + 2 \\ \hline 7 \end{array}$$

(e)
$$\begin{array}{r} 7 \\ + 3 \\ \hline 10 \end{array}$$

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

(g)
$$\begin{array}{r} 5 \\ + 4 \\ \hline 9 \end{array}$$

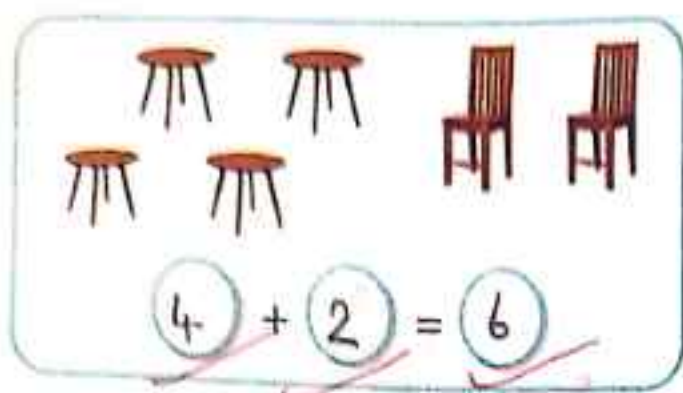
(h)
$$\begin{array}{r} 1 \\ + 0 \\ \hline 1 \end{array}$$

(i)
$$\begin{array}{r} 3 \\ + 6 \\ \hline 9 \end{array}$$

Look at the pictures and fill in the blanks with the correct numbers. Also, complete the addition facts.

- (a) There are 4 red umbrellas.
 There are 3 yellow umbrellas.
 There are 7 umbrellas altogether.

$4 + 3 = 7$



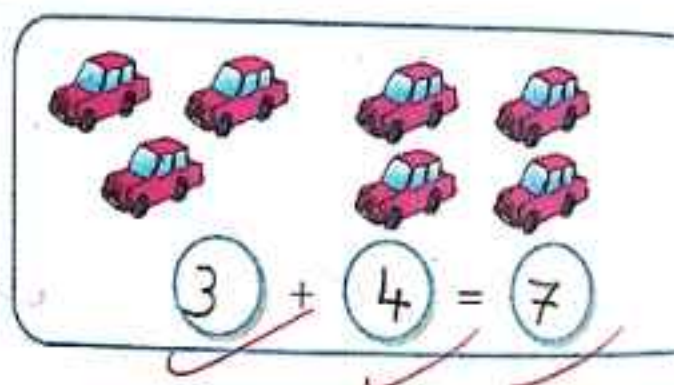
- (b) There are 4 tables.
There are 2 chairs.
There are 6 pieces of furniture altogether.

- (c) Jack and Jill went up the hill.
Kathy and Lucy join them.



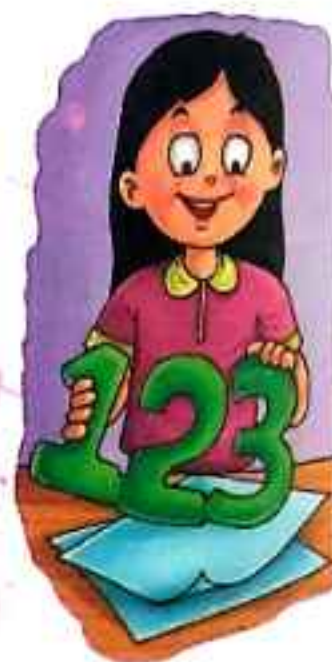
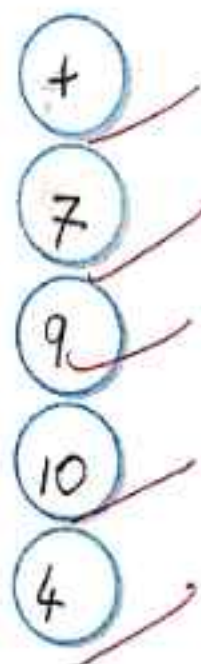
How many children altogether are there on the hill now?
There are 4 children altogether on the hill now.

- (d) Tony gives 3 toy cars to his brother. He has 4 toy cars left. How many toy cars did he have at first?



Mental Maths 21st CS

- The sign for addition is +
- How many do five and two make?
- What number is six more than three?
- What number is 8 more than 2?
- What is $4 + 0$?



SUBTRACTION WITHIN TEN

Subtraction means **taking away**.

Observe the following.

8 little birds were sitting on a tree.
5 flew away. How many birds were left
on the tree?

Counting the remaining birds on the
tree, we see that 3 birds are left on the tree.

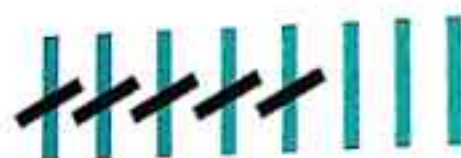
In short, we write this as:

$$8 - 5 = 3 \text{ and read as } 8 \text{ minus } 5 \text{ is equal to } 3.$$

Draw 8 lines to represent 8 birds. Cross out
5 lines to represent the birds that flew away.
How many remain?

In vertical notation, we can write
the above fact as

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



Note: '-' is the sign of
subtraction and $8 - 5 = 3$
is a **subtraction fact**.

Class Work

Look, read and fill in the blanks.



balloons



3 flew away



How many are left?

$$6 - 3 =$$

3



puppies in
basket.



All jumped out



How many puppies are
left in the basket?

$$4 - 4 =$$

0

Exercise 1G

1. Complete the following subtraction facts.

(a) $\begin{array}{c} \text{●} \text{●} \text{●} \text{●} \text{●} \\ \text{●} \text{●} \text{●} \text{●} \text{●} \end{array}$

(b) $\begin{array}{c} \blacktriangle \blacktriangle \blacktriangle \blacktriangle \blacktriangle \\ \blacktriangle \blacktriangle \blacktriangle \blacktriangle \blacktriangle \end{array}$

$6 - 4 = 2$

$5 - 1 = 4$

(c) $\begin{array}{c} \times \times \times \times \times \times \times \\ \times \times \times \times \times \times \times \end{array}$

$7 - 7 = 0$

2. Cross out (x) the correct number of things in each set and complete subtraction fact.

(a) $\begin{array}{c} \text{●} \text{●} \text{●} \text{●} \text{●} \text{●} \\ \text{●} \text{●} \text{●} \text{●} \text{●} \text{●} \end{array}$

(b) $\begin{array}{c} \text{●} \text{●} \text{●} \text{●} \text{●} \text{●} \\ \text{●} \text{●} \text{●} \text{●} \text{●} \text{●} \end{array}$

$6 - 3 = 3$

$8 - 2 = 6$

(c) $\begin{array}{c} \text{●} \text{●} \text{●} \text{●} \text{●} \text{●} \\ \text{●} \text{●} \text{●} \text{●} \text{●} \text{●} \end{array}$

(d) $\begin{array}{c} \text{●} \text{●} \text{●} \text{●} \text{●} \text{●} \\ \text{●} \text{●} \text{●} \text{●} \text{●} \text{●} \end{array}$

$7 - 4 = 3$

$9 - 5 = 4$

3. Subtract the following. One has been done for you.

(a) $\begin{array}{r} 6 \\ - 1 \\ \hline 5 \end{array}$

(b) $\begin{array}{r} 9 \\ - 8 \\ \hline 1 \end{array}$

(c) $\begin{array}{r} 8 \\ - 3 \\ \hline 5 \end{array}$

(d) $\begin{array}{r} 7 \\ - 2 \\ \hline 5 \end{array}$

(e) $\begin{array}{r} 10 \\ - 5 \\ \hline 5 \end{array}$

(f) $\begin{array}{r} 3 \\ - 3 \\ \hline 0 \end{array}$

4. Find the difference.

(a) $\begin{array}{r} 8 \\ - 4 \\ \hline 4 \end{array}$

(b) $\begin{array}{r} 10 \\ - 8 \\ \hline 2 \end{array}$

(c) $9 - 9 = 0$

(d) $\begin{array}{r} 6 \\ - 0 \\ \hline 6 \end{array}$

(e) $\begin{array}{r} 5 \\ - 2 \\ \hline 3 \end{array}$

(f) $4 - 3 = 1$

5. Fill in the boxes.

(a) From $\boxed{8}$ take away $\boxed{3}$ leaves $\boxed{5}$

(b) From $\boxed{9}$ take away $\boxed{7}$ leaves $\boxed{2}$



6. Solve the following.

- (a) There are 4 ducks in the park. 3 have gone swimming. How many ducks are left outside?

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

1 duck is left outside.

- (b) There were 8 children in the amusement park.

3 of them were wearing hats.

How many children were not wearing hats?

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

5 children were not wearing hats.



MIXED WORD PROBLEMS



Exercise 1H



Read the word problems carefully and decide if we have to add or subtract to solve them. One has been done for you.

1. 6 cows were in the barn.
2 more cows came into the barn.

How many cows were in the barn then?

There were 8 cows in the barn then.



Workspace

We have to find

total number

of cows in

barn. So, we

have to add.

$$\begin{array}{r} 6 \\ + 2 \\ \hline 8 \end{array}$$



2. 7 balls were on the table.
2 balls fell off the table.

How many balls were left on the table?

5 balls were left on the table.

$$\begin{array}{r} 7 \\ - 2 \\ \hline 5 \end{array}$$

3. There were 5 birds in the pond.
3 more birds joined them.

How many birds were there altogether?

There were 8 birds altogether.



Workspace

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



4. 8 toy cars were in the box.
Rita took 5 cars out of the box.
How many cars were left in the box?

3 cars were left in the box.

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

5. 6 rabbits were eating.
3 rabbits ran away.
How many rabbits were left eating?

3 rabbits were left eating.



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

Challenge!



1. Use addition and subtraction to make number 7. Do not repeat the numbers.

$$4 + 3 = 7$$

$$5 + 2 = 7$$

$$9 - 2 =$$

2. Write the numbers 4, 5 and 6 on the cups so that the sum of each side is 9.



Chapter Test

Tick (✓) the correct answer in each of the following.

1. Who has the greatest number of marbles?



Manoj

Anuj



Priti

Honey

2. The number just before 10 is

- (a) 0 (b) 9 (c) 8 (d) 7

3. Which of the following sets of numbers is arranged in increasing order?

- (a) 0, 1, 6, 3 (b) 2, 3, 7, 6 (c) 7, 5, 1, 2 (d) 1, 4, 7, 9

4. Which apple is in the third position from the right?



- (a) C (b) E (c) F (d) B

5. Which of the following pairs of numbers, when added make the number 8?

- (a) 3, 7 (b) 2, 5 (c) 6, 3 (d) 4, 5

6. Which of the following subtraction facts does not give an answer as 2?

- (a) 6 - 4 (b) 5 - 3 (c) 4 - 1 (d) 7 - 5

7. Which of the following number sentences gives an answer smaller than 6?

- (a) 5 + 3 (b) 7 - 2 (c) 2 + 6 (d) 9 - 1

Challenge!



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1. Fill in each blank with '+' or '-':

- (a) 6 + 4 = 10 (b) 8 - 4 = 4

2. Which of the following will make the number sentence $6 + 1 = 9 -$ true?

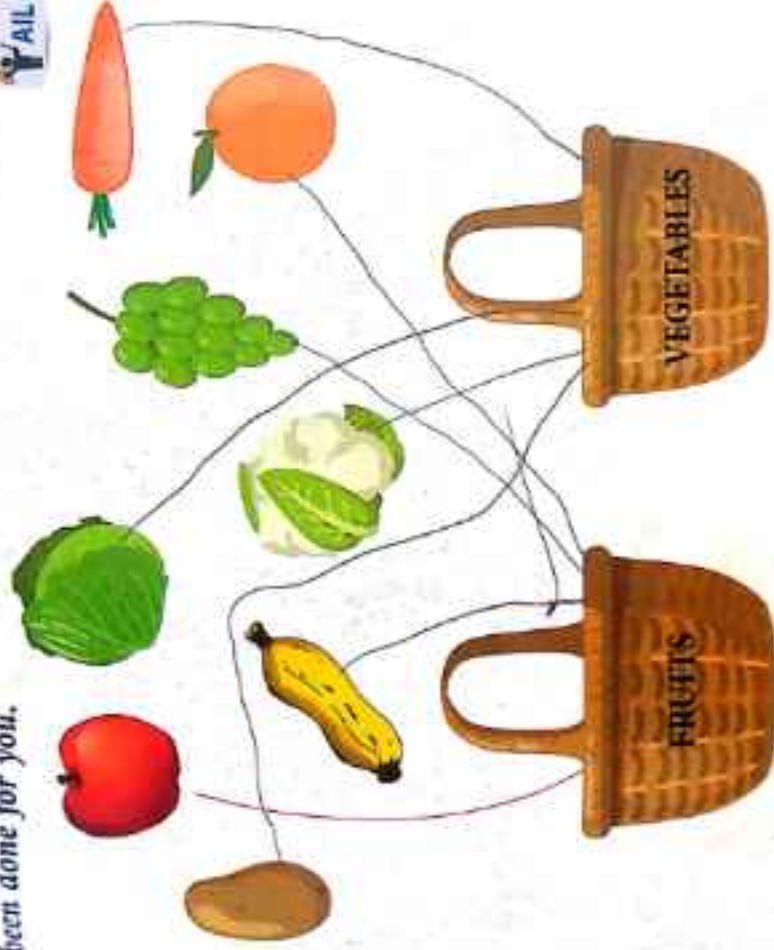
- (a) 1 (b) 2 (c) 3 (d) 0

SORTING

Sorting is arranging objects in groups according to their similarities.

Sorting Fruits and Vegetables

Draw lines from each item to place it in the correct basket. One has been done for you.



Now, count how many items are there in each basket and write the number in the blank space given below.

Number of fruits = 4

Number of vegetables = 4

Sorting Animals

There are animals that live on land as well as animals that live in water.

Draw lines from each animal to put it in the correct group. *One has been done for you.*



Now, count how many in each group and write the number in the blank space.

Land animals 6

Water animals 4



Sorting and Counting Flowers and Leaves

Colour the flowery **pink** and the leaves green. Count and write the total number of each item.



Flowers	9
---------	---

Leaves	6
--------	---

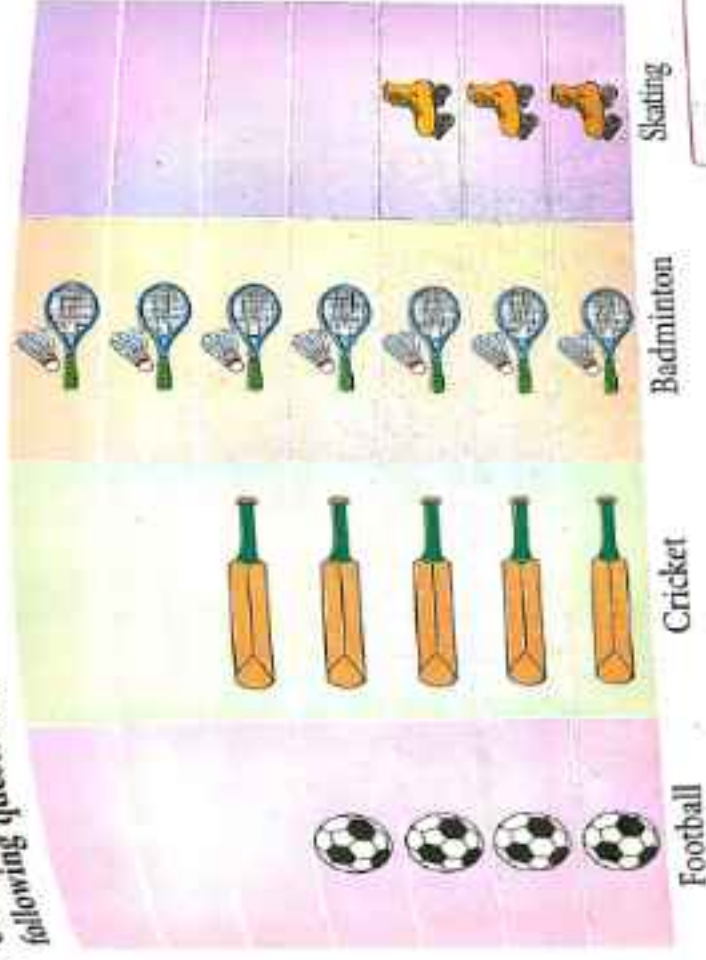
Sorting by Colour

Put a tick (✓) in the picture for each coloured top worn by children.
Count the ticks and write the total.



Colours	Tick Marks	Total
Red	✓✓✓✓	4
Yellow	✓✓✓	3
Green	✓✓	2
Blue	✓✓✓✓	4

Use the chart showing the favourite games of children and answer the following questions.

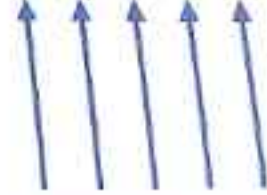


- How many children like cricket?
- How many children like skating?
- Which game is liked most?
- Which game is liked least?
- How many more children like badminton than football?

Count the number of letters in each name and answer the questions that follow.

Names

P R I Y A N K A
M R I D U L
X N I U
D E E P A K
N I D H I



6
6
5
5
6

(a) How many names have six letters?

(b) Which name has 5 letters?

6
Nidhi
No taken together?

Chapter Test

Help Ankit and Ritu sort the wild animals and the pet animals from animals given below. Write W for wild animal and P for pet animals also shade a block for each type of animal.



W



P



W



W



P



P



W



W



P



W



P

Wild Animals

Pet Animals

Answer the following questions.

How many wild animals are there?

How many pet animals are there?

The number of wild animals is more than the number of pet animals. (Circle the correct answer.)

7

4