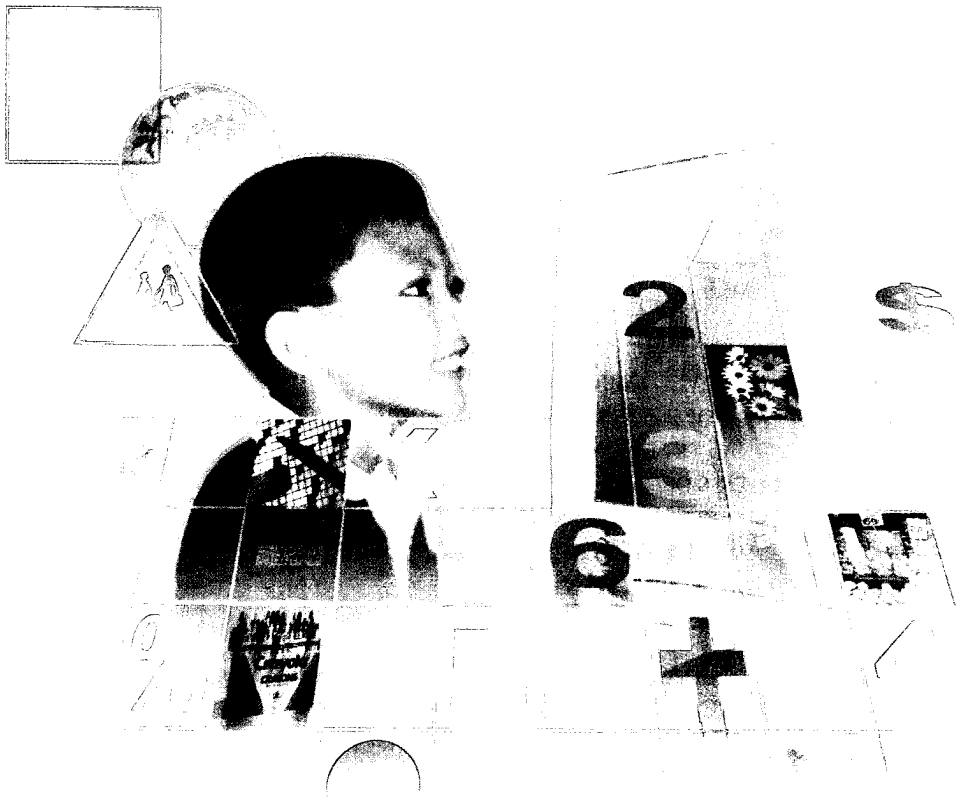
THINKING MATHEMATICS 1A



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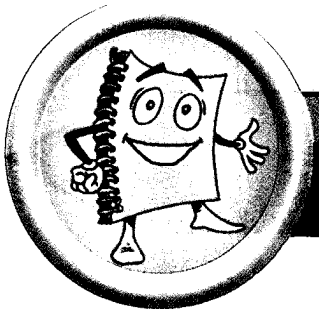


PREFACE

The Thinking Mathematics series is based on the latest primary mathematics syllabus. In this series, the concrete-pictorial-abstract format is used to introduce new concepts. The spiral approach is used throughout the series to consolidate and link mathematical concepts.

The series comprises textbooks and workbooks at each level. Textbook 1A comprises 9 units. Each unit is prefaced by a relevant situation from daily life and followed through with the following sections:

Do You Know? Relevant, thought-provoking questions are asked with regard to the real life situation presented at the beginning of each unit to link mathematics and daily life.

Let's Learn New concepts are explained in a straight-forward and interesting way. Creative and critical thinking, as well as an awareness of problem-solving strategy are developed through worked examples in this section.

Let's Try Guided sums are provided to confirm and consolidate the concepts taught.

Practice Exercises involving critical and creative thinking are provided to encourage pupils to look for alternative strategies in problem-solving and thus help them grow into independent and active learners.

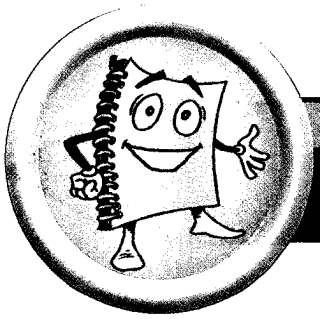
In-Class Activity Active participation from pupils and creative application of mathematics to daily life, including IT and hands-on activities, helps to develop lifelong learners. Cooperation and team spirit are encouraged through group and pair work.

Fun With Maths Mathematical concepts are extended beyond the boundaries of the classroom and brought into the realm of exploration and experiment to further engage and develop the pupil's interest in mathematics.

Other features of this series include:

National Education This is integrated, whenever applicable, into the series to promote a sense of nationality in the pupils.

Revision Exercises are provided to assist pupils in reviewing the concepts and skills learnt as part of examination preparation.



CONTENTS

CHAPTER 1

NUMBERS TO 20

My Neighborhood

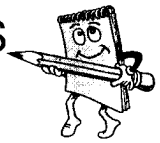
Numbers are everywhere.

Do You Know?

The Singapore Flag is made up of **2** colors.
The Flag has **1** moon and **5** stars on it.

In-Class Activity

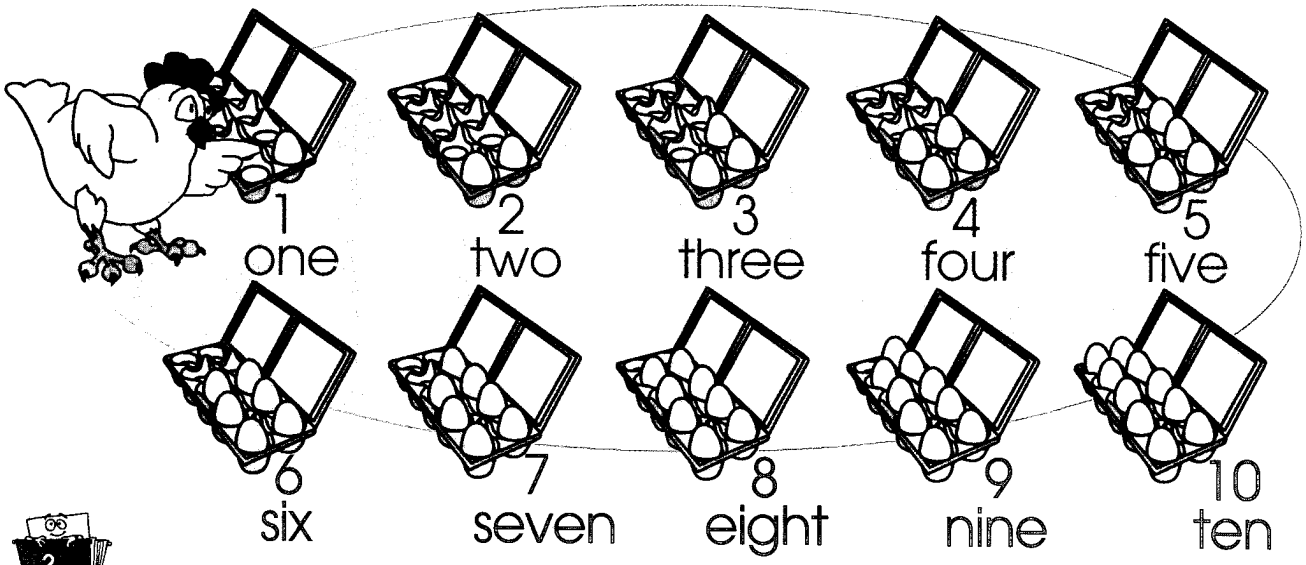
Think of your special number. Then tell it to your classmates and say why it is special to you.



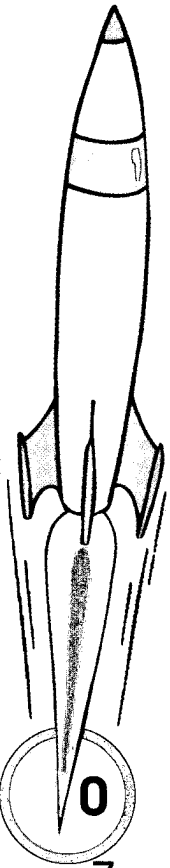
Let's Learn

Count to 10

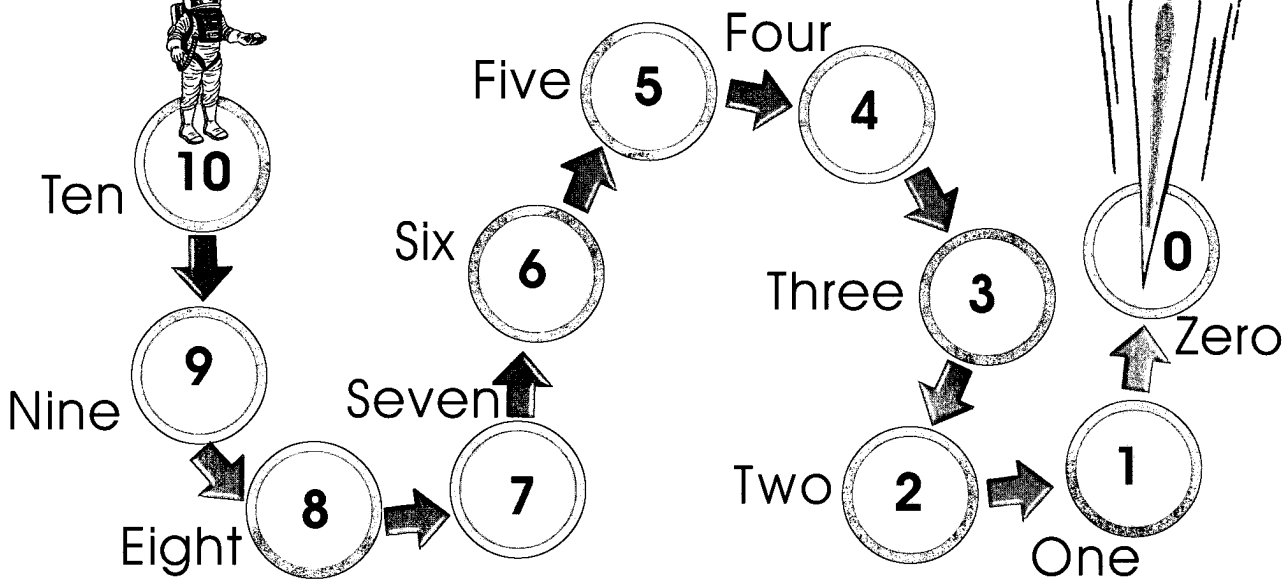
Count the number of eggs in each container:



How many buses do you see?
There are no buses on the road.
The number of buses on the road is zero or 0.



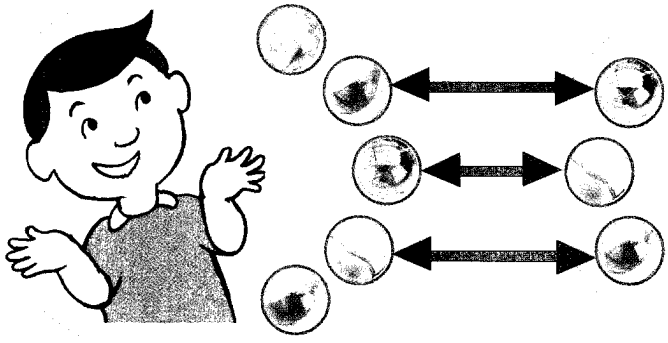
Count backwards

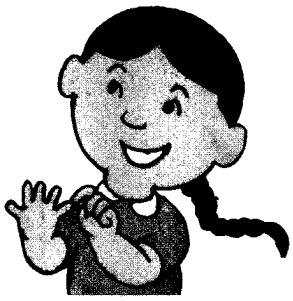


Compare

Minghua

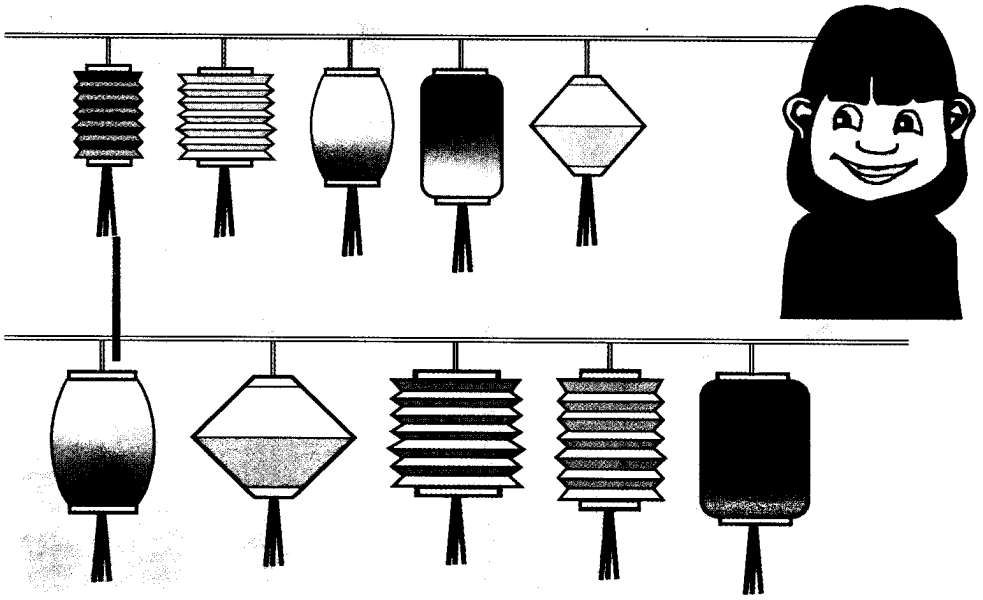
Devi



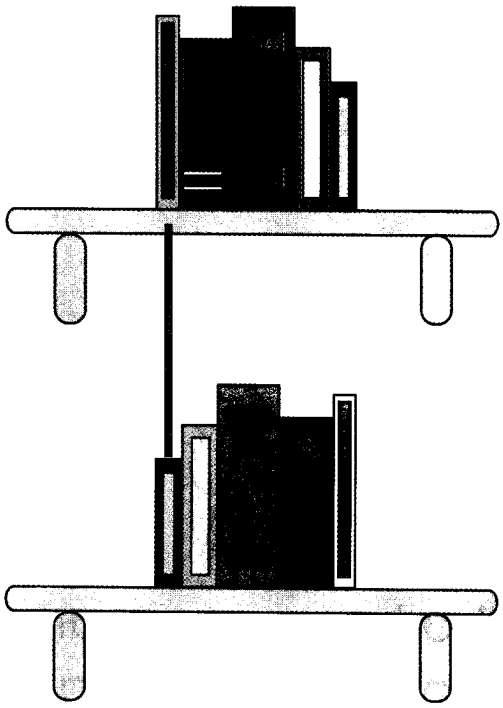


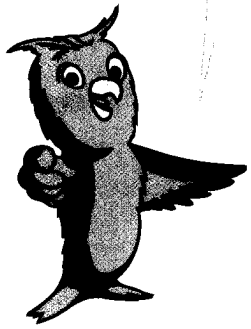
Who has more marbles?
Who has fewer marbles?

Match the lanterns hanging on the two lines.
Do the two lines have the same number of lanterns?

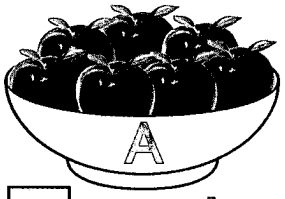


Match the books on the shelves.
Do the shelves have the same number of books?

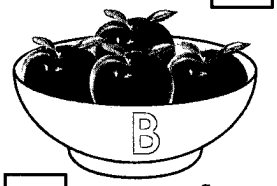




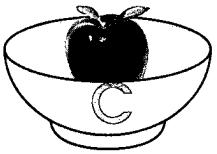
Which bowl has the greatest number of apples?
Which bowl has the smallest number of apples?
Which bowl does Mr. Worm prefer? Why?



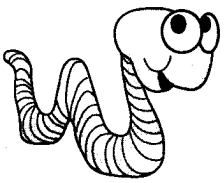
☐ apples



☐ apples

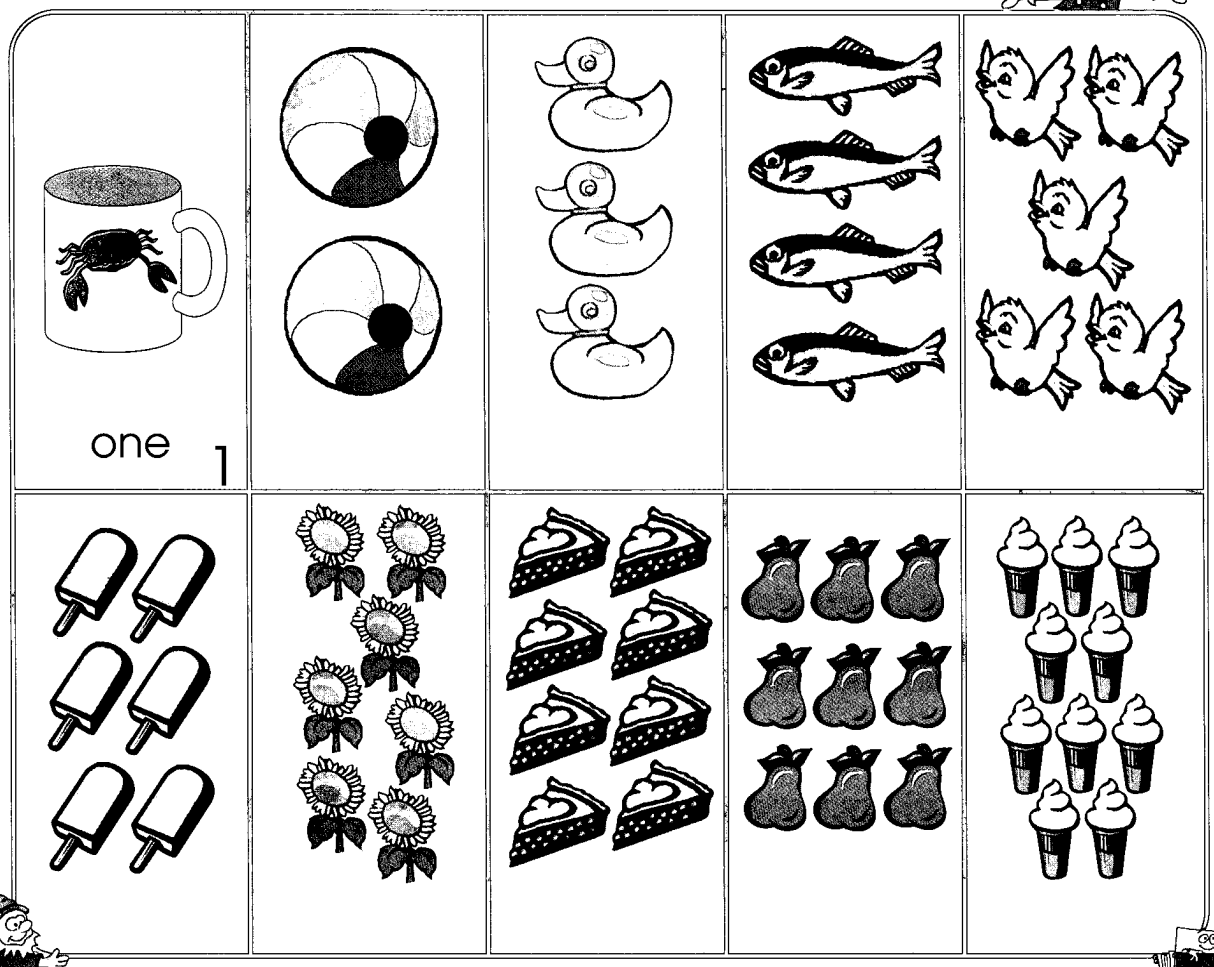


☐ apple



Let's Try

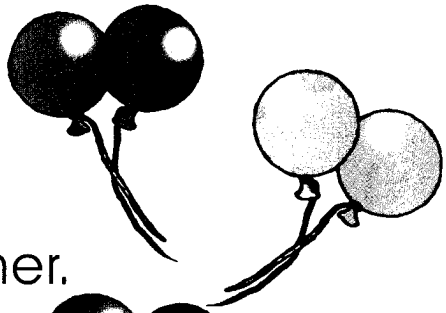
1. Count and write down the number of things in words and numbers.



2. The number just after 7 is ◯.

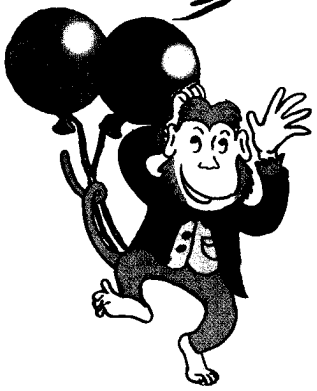
The number just before 3 is ◯.

Practice A



1. There are ☐ balloons altogether.

The monkey holds ☐ balloons with its tail and ☐ balloons are in the air.

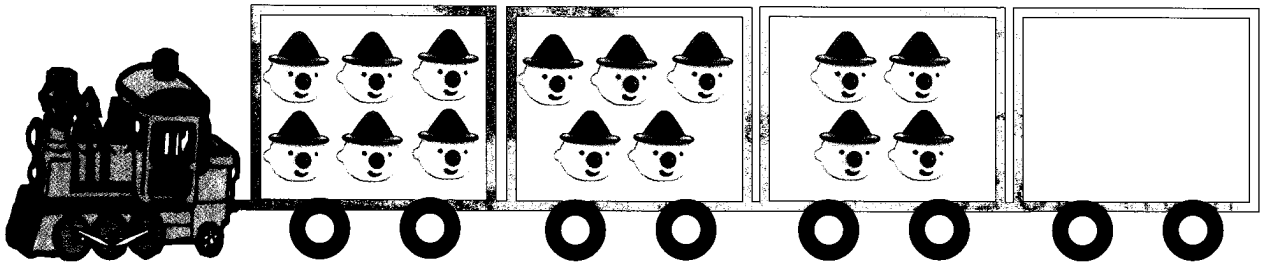


2. What are the missing numbers?

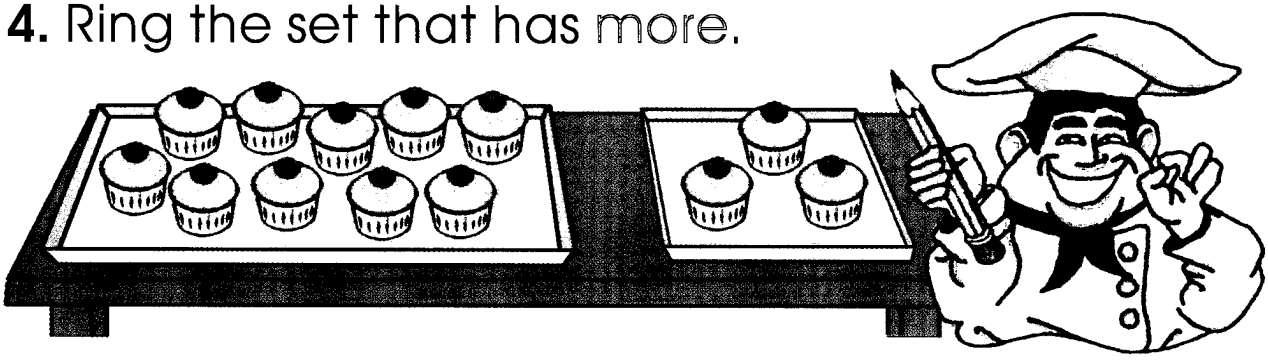
(a) one, two, ☐, four, ☐, six, ☐.

(b) 10, ◯, 8, ◯, 6, ◯.

3. What comes next? Draw.



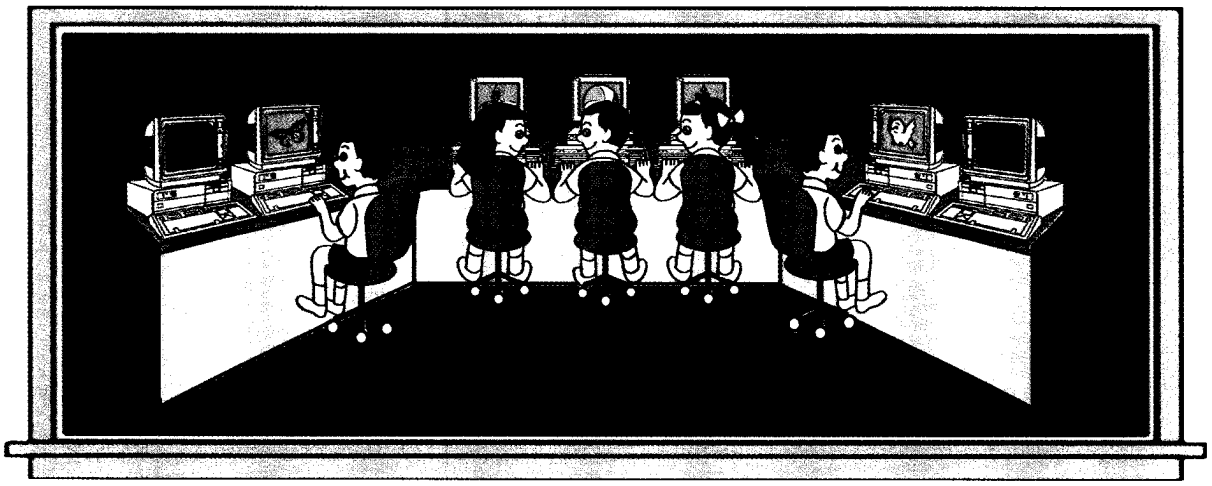
4. Ring the set that has more.



5. There are ☐ computers in the room.

☐ boys and ☐ girls are using the computers.

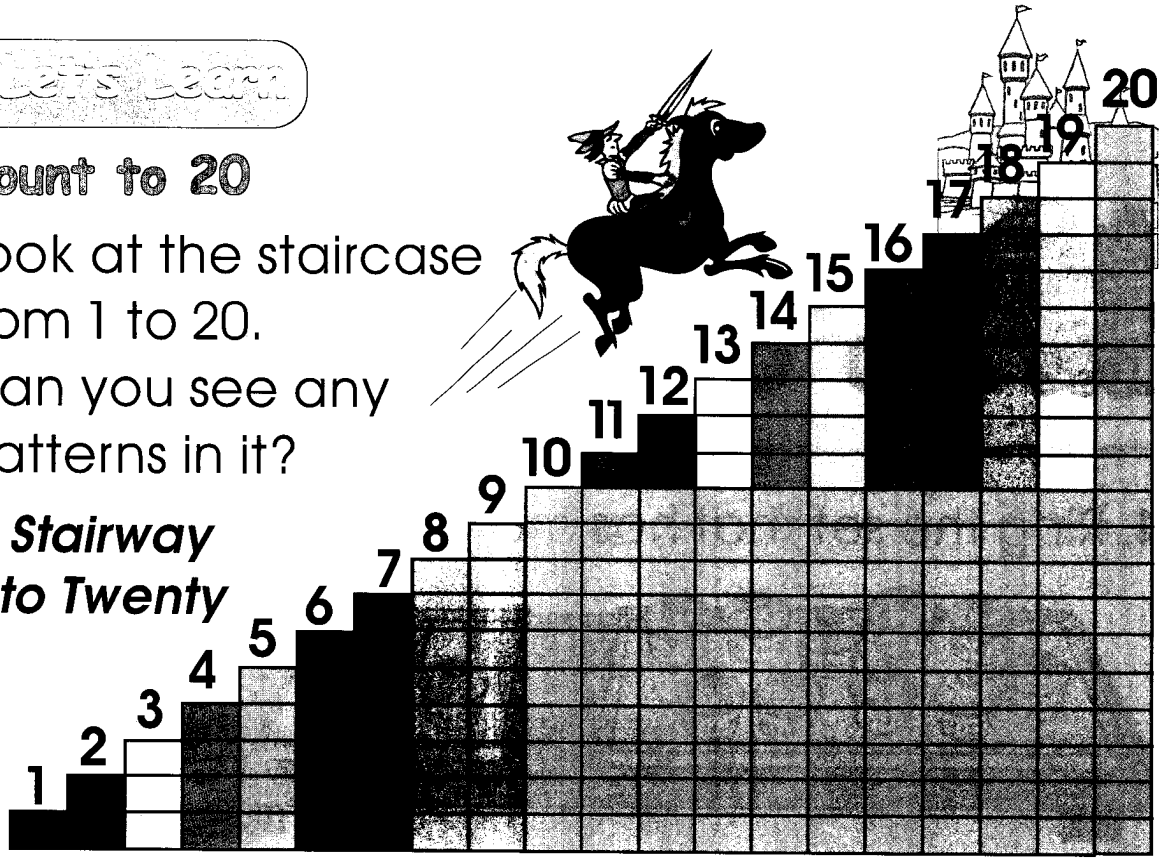
☐ computers are not being used.



Let's Learn

Count to 20

Look at the staircase from 1 to 20. Can you see any patterns in it?



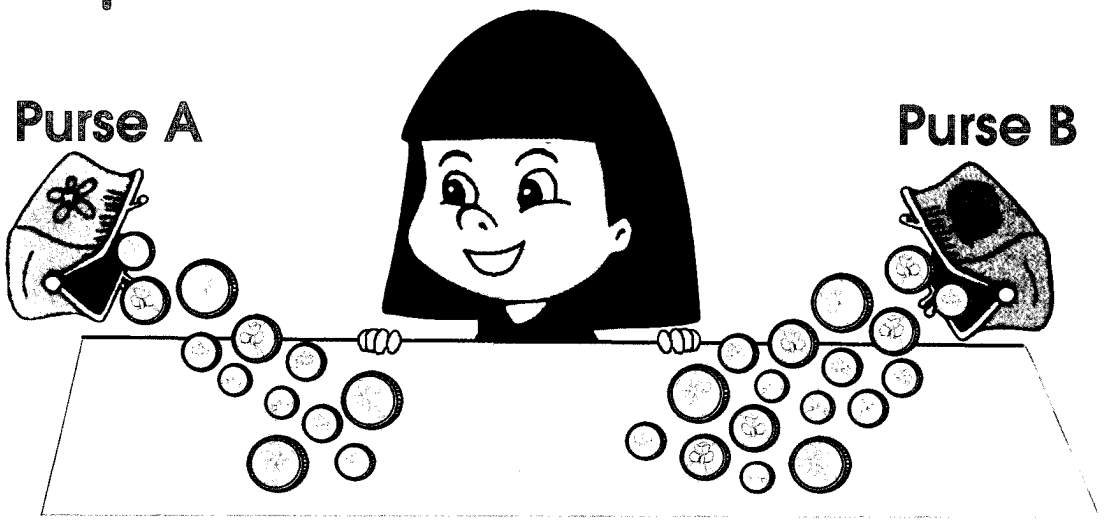
Numbers greater than 10

10 and 1 make 11 —— eleven

10 and 2 make 12 —— twelve

10 and 10 make 20 —— twenty

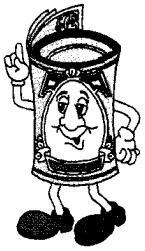
Compare

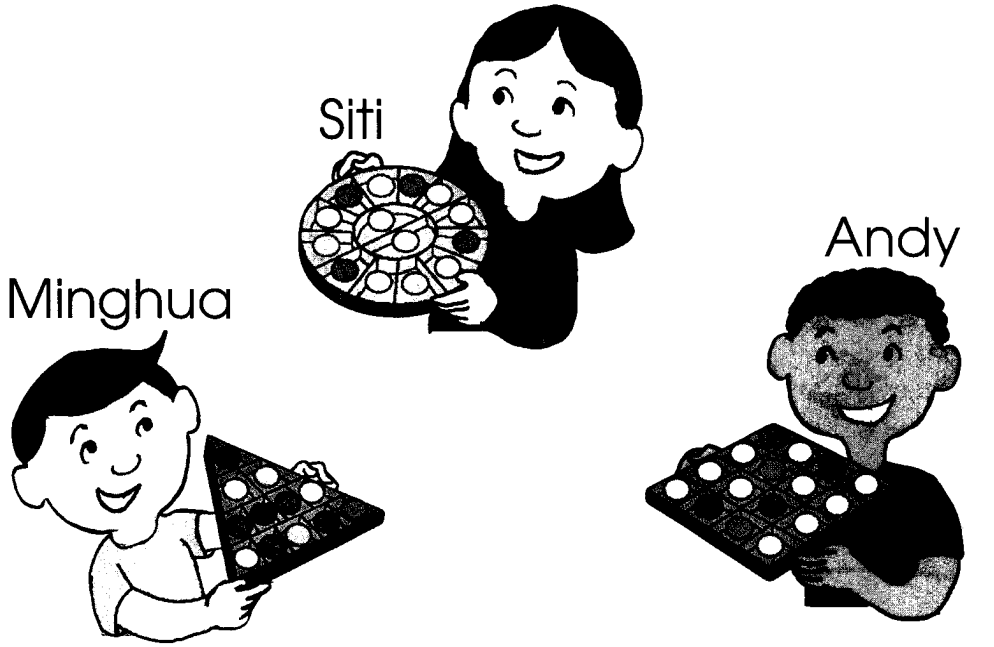


☐ coins ☐ coins

Which purse has more coins?

Which purse has fewer coins?





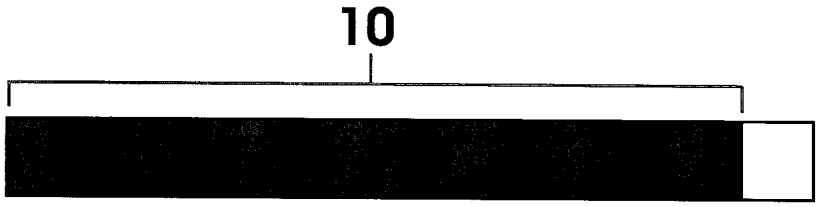
How many sweets does Siti have?

Who has more sweets than Siti?

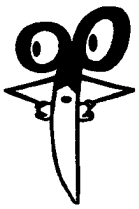
Who has fewer sweets than Siti?

Make a ten

Get a worksheet from your teacher.
Cut out a row of 10 and paste them on the empty boxes on the worksheet. Then count on from 10 and write the number in the blank.
An example has been done for you:



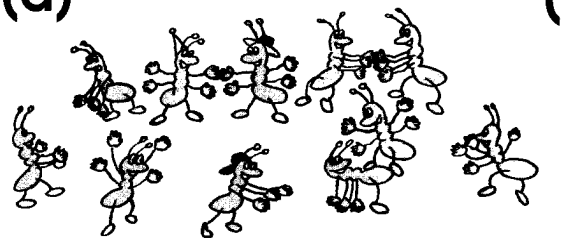
11

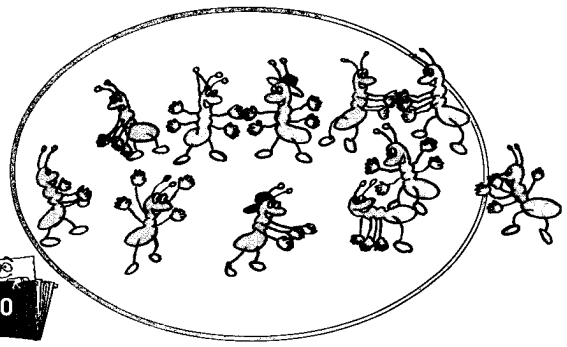


Practice

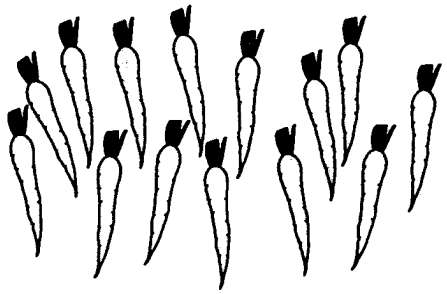
1. Make a ten and count:

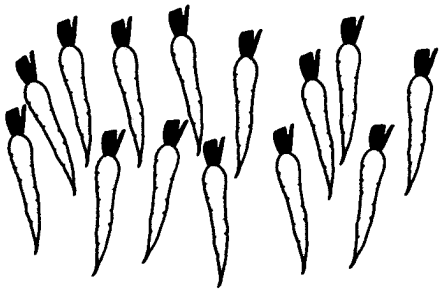
(a)





(b)





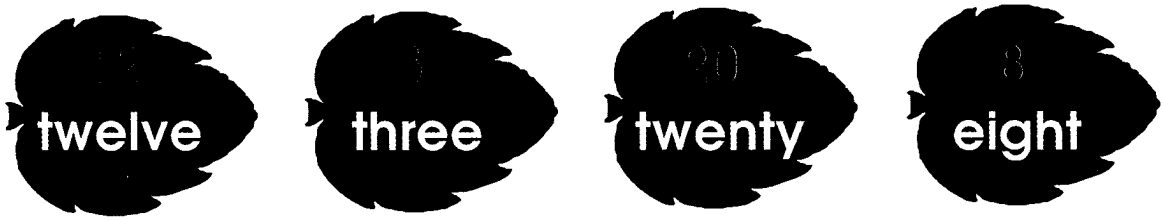
2. What is the number under each sticker?

(a) 9 →  →  → 12 → 13

(b) 16 →  →  → 13 → 

(c)  →  → 18 → 19 → 

3. Compare the following numbers.



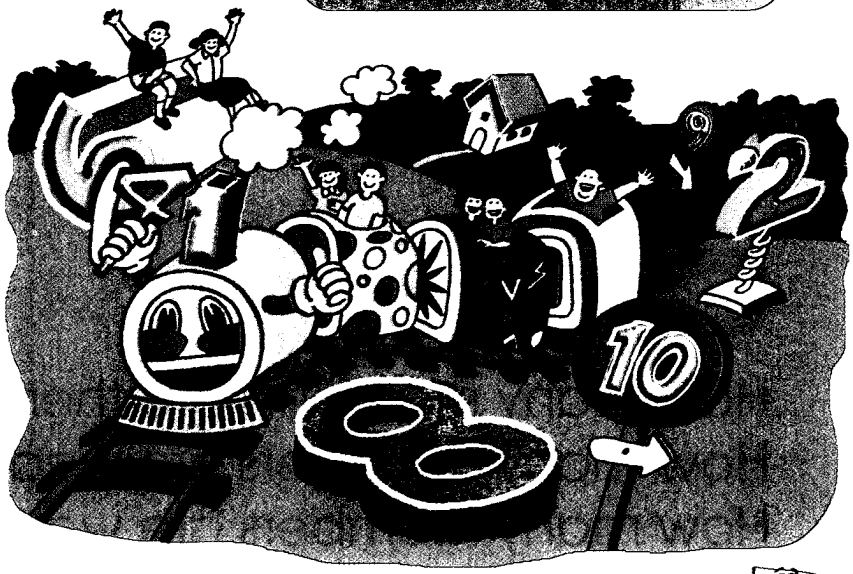
(a) Which number is the greatest?

(b) Which number is the smallest?

(c) Say the numbers in order beginning with the smallest.

Fun With Maths

Can you spot the flag of the train in the shape of a '4'? Draw your own pictures using numbers.



CHAPTER 2

NUMBER BONDS

This is the Happy family having a picnic at the beach.

Do You Know?

How many members are there in the family?
How many members are wearing glasses?
How many members are wearing shorts?

Number bonds

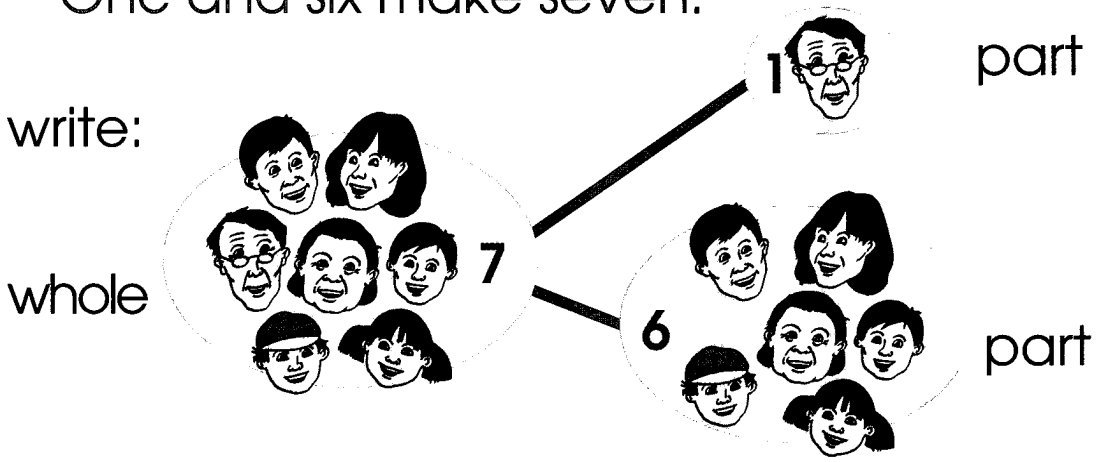
There are 7 members in the family.

Only **1** member wears glasses. The other **6** members do not wear glasses.

We say:

One and six make seven.

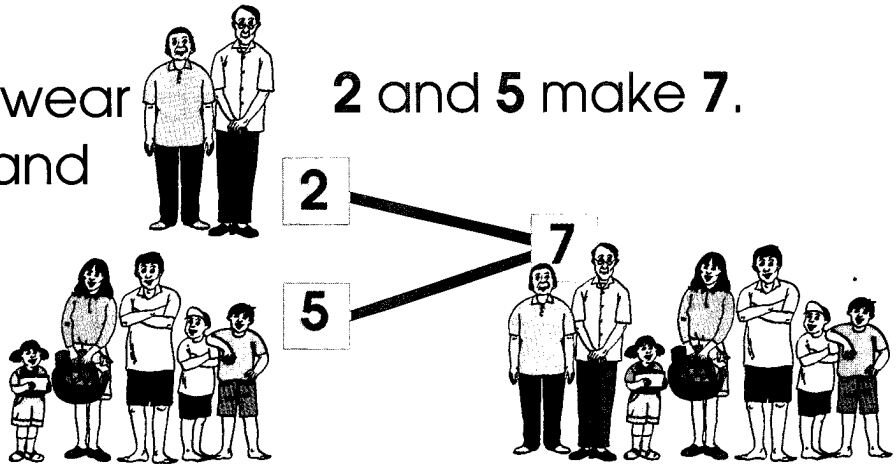
We write:



This is called a **number bond** of 7.

2 members wear long pants and

5 members wear shorts.

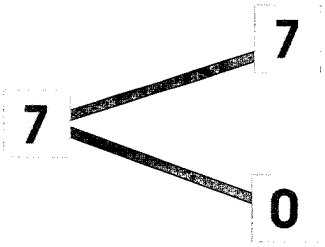


2 and **5** make **7**.

This is also a number bond of 7.

All 7 members are smiling. Zero members are not smiling.

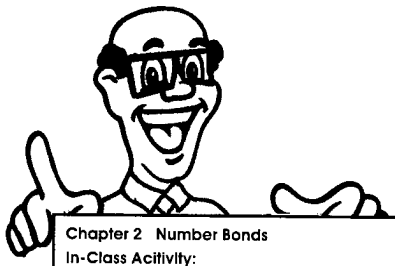
We say **0** and 7 make 7.



This is also a number bond of 7.

Can you find other number bonds of 7?

In-Class Activity



Get a worksheet from your teacher for this activity.

Cut out 8 squares from the worksheet and make as many number bonds of 8 as you can.

Then write them down on the worksheet.

Tell your classmates what you have found.

Chapter 2 Number Bonds

In-Class Acitivity:

Group 8 squares in 2 parts:

Part **Part**

Make as many stories of 8 as you can.

___ and ___ make 8. ___ and ___ make 8.

___ and ___ make 8. ___ and ___ make 8.

___ and ___ make 8. ___ and ___ make 8.

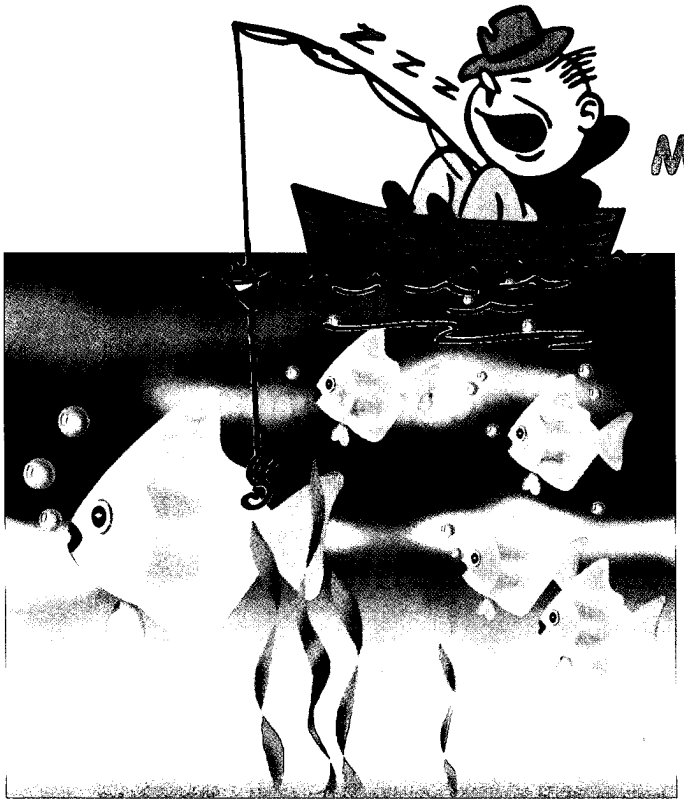
___ and ___ make 8. ___ and ___ make 8.

___ and ___ make 8.

Square cut-outs:

Let's Learn

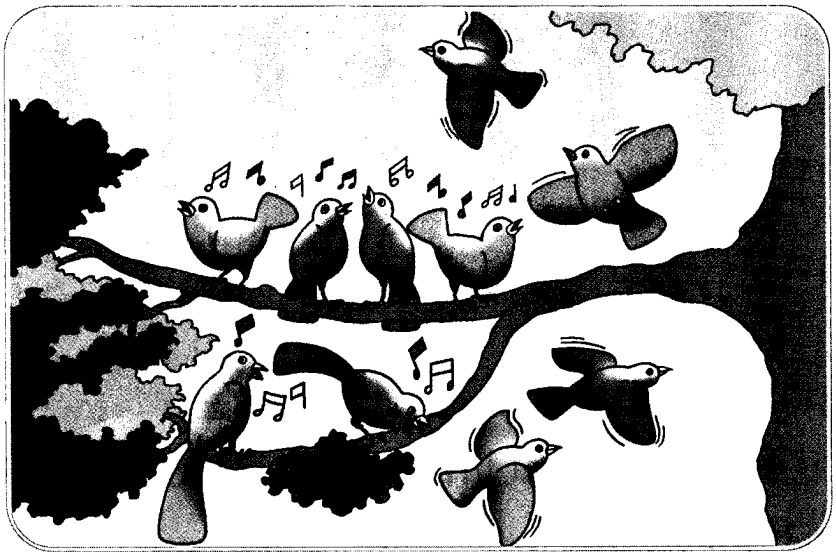
Making number stories



1. The story of 5 fish

How many fish do you see in the picture?
4 small fish and 1 big fish make 5 fish.
Can you tell another story of the 5 fish?

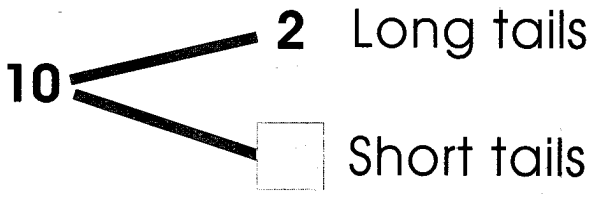
2. The story of 10 birds



(a) There are ☐ green birds and ☐ blue birds.

(b) 6 birds on the branch and ☐ birds flying make 10 birds.

(c) Fill in the missing number.



(d) Can you tell another story of these 10 birds using number bonds?

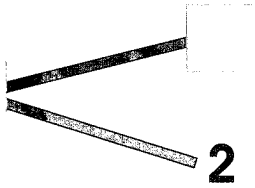
Practice 2A

1.

Complete the 3 different stories about these monkeys.

(a) ◯ monkeys are on the tree and 1 monkey is on the ground.

◯ monkeys and 1 monkey make ◯ monkeys.

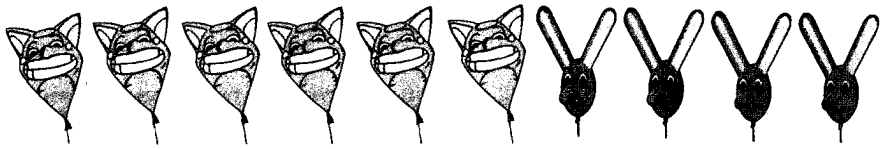
(b)  monkeys swinging in the tree

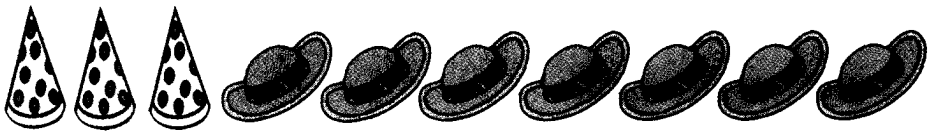
2 monkeys sitting

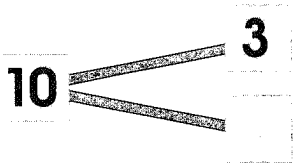
(c) 5 brown monkeys and ◯ grey monkeys make ◯ monkeys.

5 and ◯ make ◯.

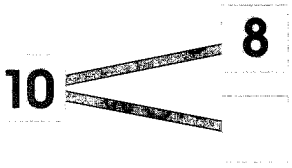
2. Complete the following number bonds of 10.

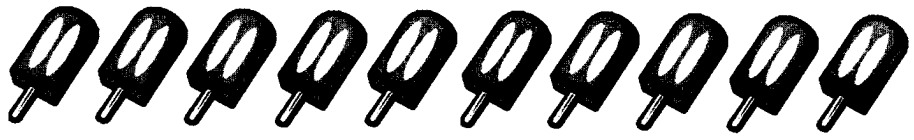
(a) 

(b) 

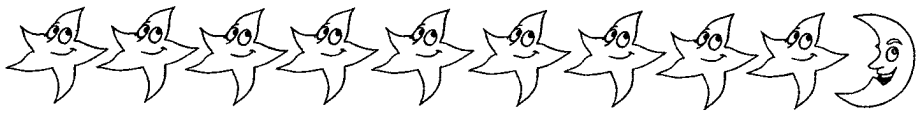


(c) 



(d) 

10 = ☐ + 10

(e) 

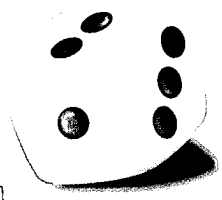
10 = ☐ + 1

(f) 

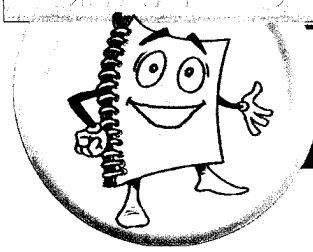
10 = ☐ + 5

Fun With Maths

Be a little magician:
Throw a dice a few times. Each time it stops, look at the number on top and the number below. Do you see a pattern?



Ask your family members to throw a dice, and say you can tell them the number below.



ADDITION

Look at the giraffe family. What are the giraffes doing?

How many baby giraffes do you see?
How many adult giraffes are there?
How many giraffes are there altogether?

Let's Learn

Making addition stories

We can tell a number story from the picture.

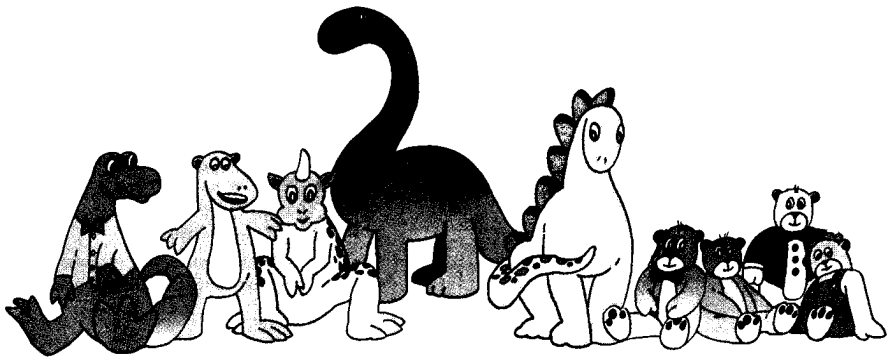
Two adult giraffes are eating leaves.
Three baby giraffes are drinking water.
There are five giraffes altogether.

We say:
Two giraffes **added** to three giraffes is **equal** to five giraffes.
We write the number sentence as:

2 + 3 = 5 This is addition.
It means putting together.

We can also say:
Three giraffes **added** to two giraffes is **equal** to five giraffes.
We write:
3 + 2 = 5

The picture shows Sammy's toys.



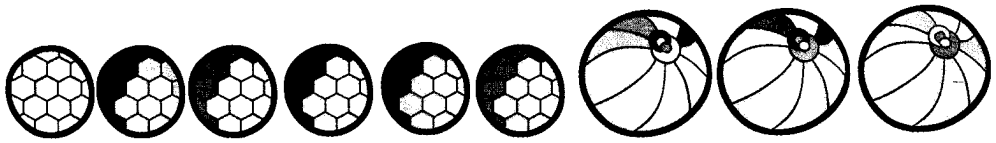
How many toy animals does Sammy have altogether?

Sammy has ☐ teddy bears and ☐ toy dinosaurs.

4 toy animals added to 5 toy animals is equal to 9 toy animals.

$$4 + 5 = 9$$

Sammy has 9 toy animals altogether.



How many balls do you see altogether?

☐ small balls added to ☐ big balls is equal to 9 balls.

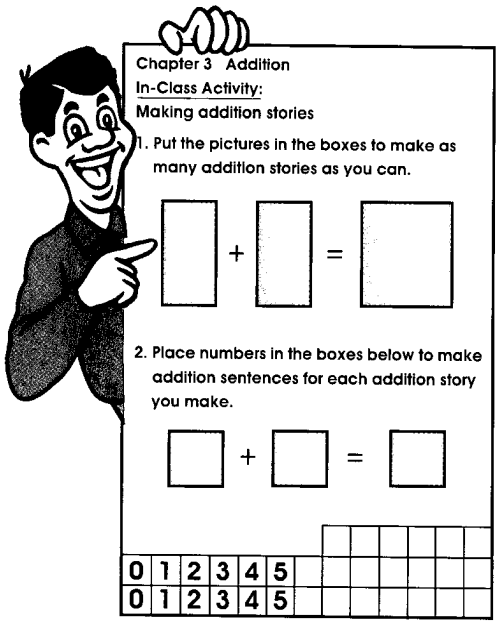
$$6 + 3 = \square$$

There are ☐ balls altogether.

In-Class Activity

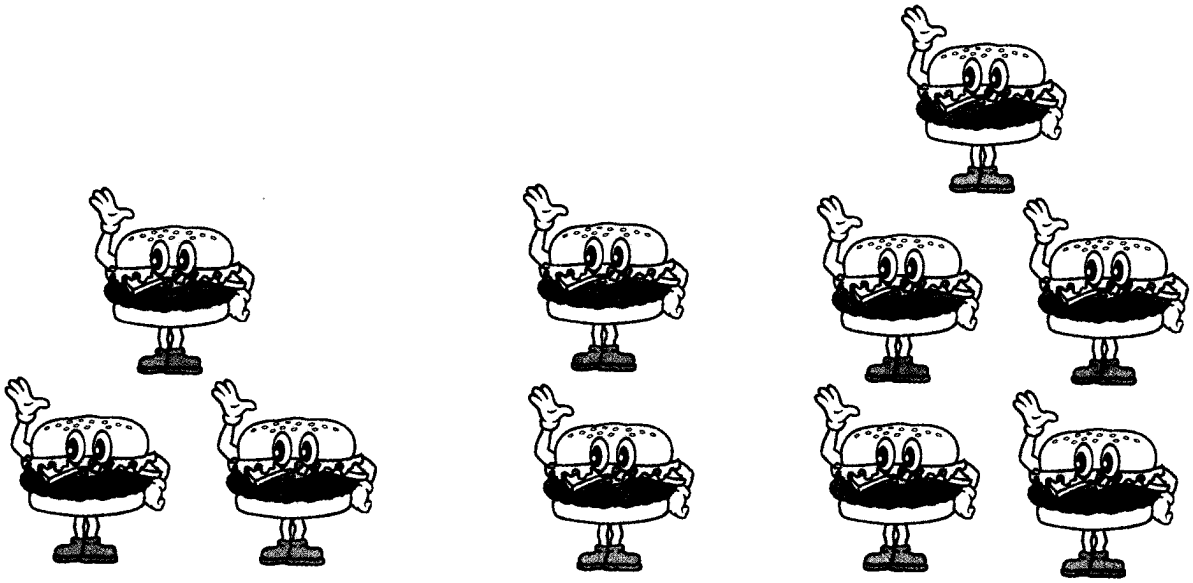
Get a worksheet from your teacher for this activity.

Place the pictures and numbers from the worksheet in the boxes to make as many addition stories as you can.



Make a number sentence for each addition story.

For example:



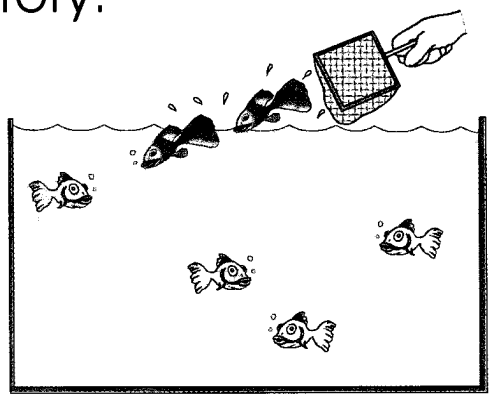
3 + 2 = 5

Let's Try!

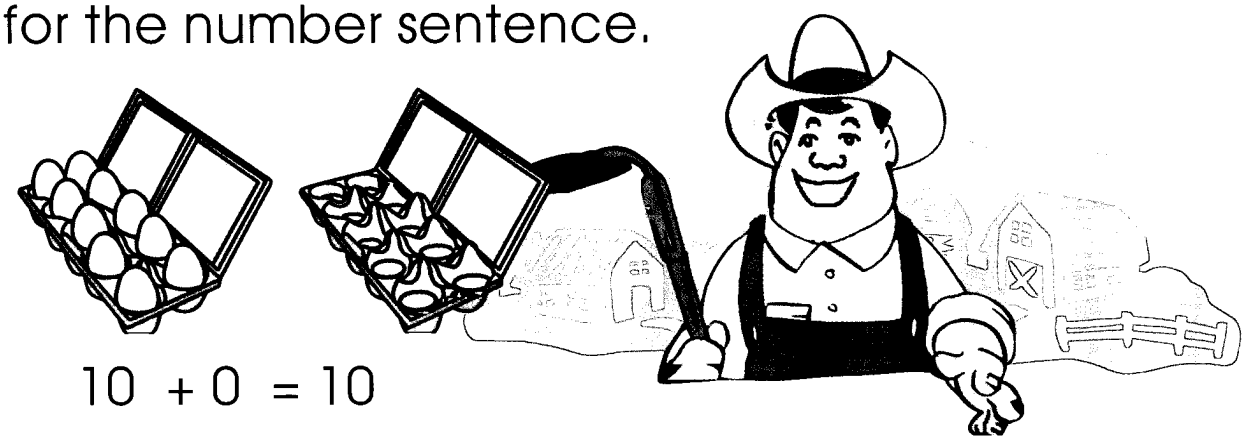
1. Complete the addition story.

2 guppies added to 4 goldfish is equal to ☐ fish.

4 + ☐ = ☐



2. Make up an addition story for the number sentence.



10 + 0 = 10

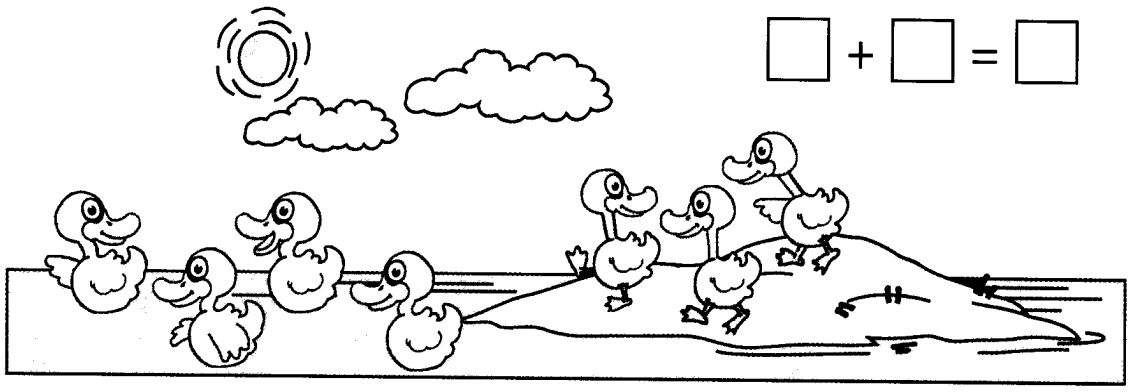
3. Look at the picture and write <u>two</u> number sentences.

☐ + 3 = ☐

☐ + ☐ = 8

Practice 3A

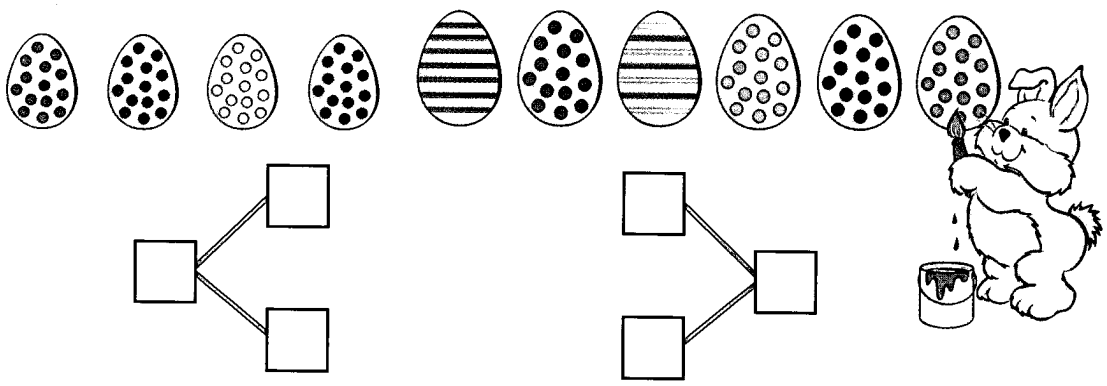
1. Tell an addition story for this picture.
Then complete the number sentence.



□ + □ = □

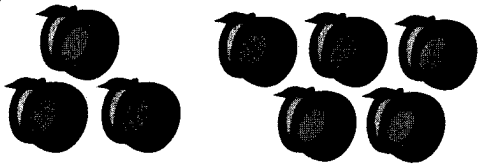
2. Tell two different addition stories for this picture.
Then complete the number bonds for each.

Easter Eggs



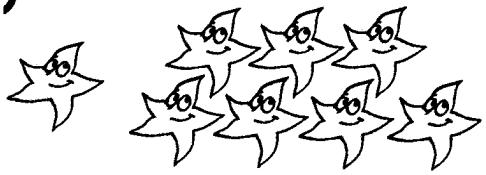
3. Write an addition sentence for each.

(a)



□ ○ □ = □

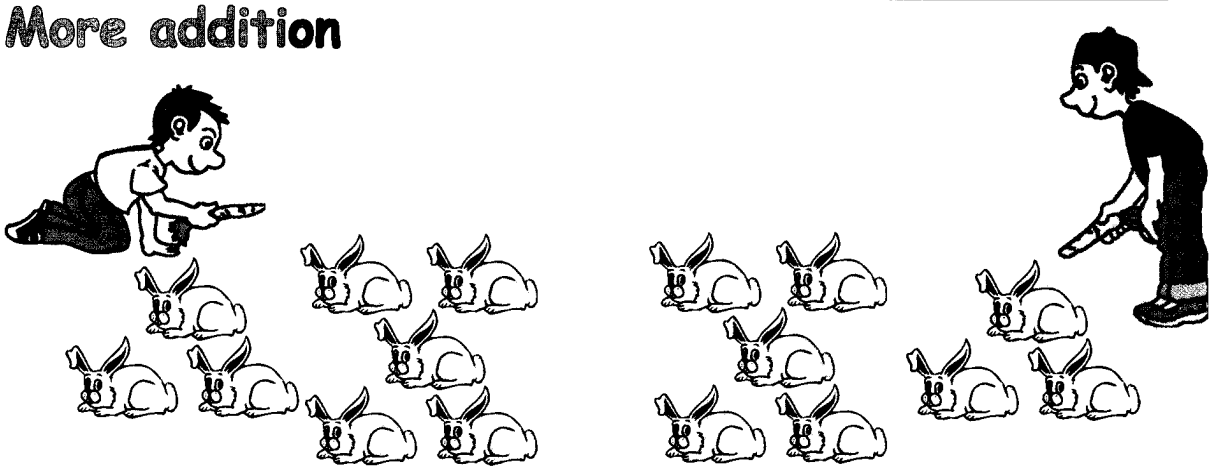
(b)



□ ○ □ = □

Let's Learn

More addition



3 + 5 = ☐

5 + 3 = ☐

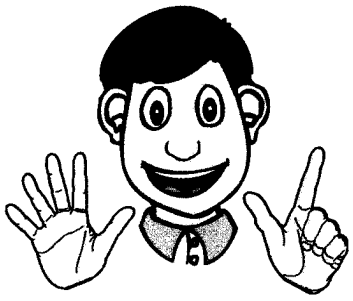
How many rabbits are there altogether?

3 + 5 is the same as 5 + 3

Counting on

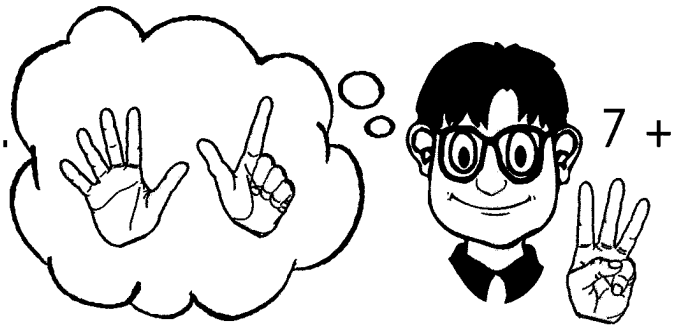
We can use our fingers to add numbers.

Add 5 and 2.



5 + 2 = 7

Add 7 and 3.



7 + 3 = ☐

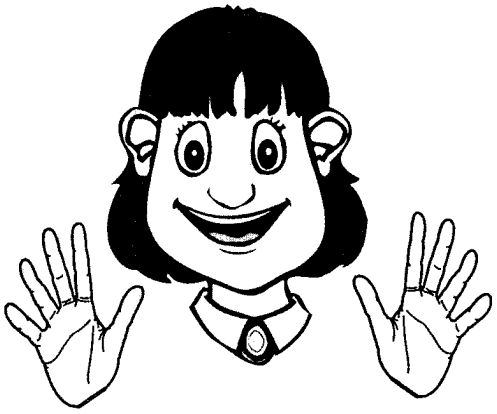
Let's Try

1. Use your fingers and add the following.

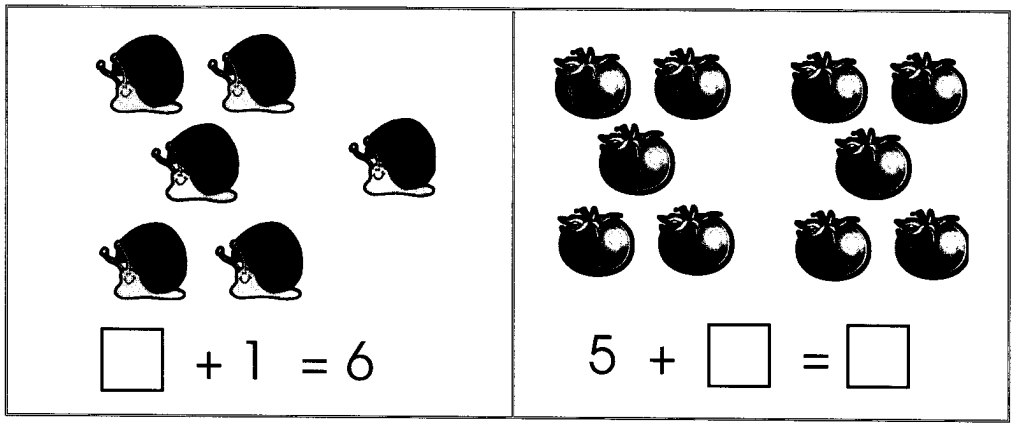
(a) 6 and 3

(b) 1 and 4

(c) 2 and 8



2. Complete the addition sentences.



Practice

1. Help Mr. Frog to add.

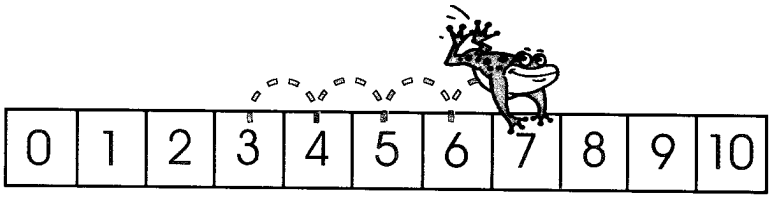
(a) 3 + 4 = □

(b) 8 + 2 = □

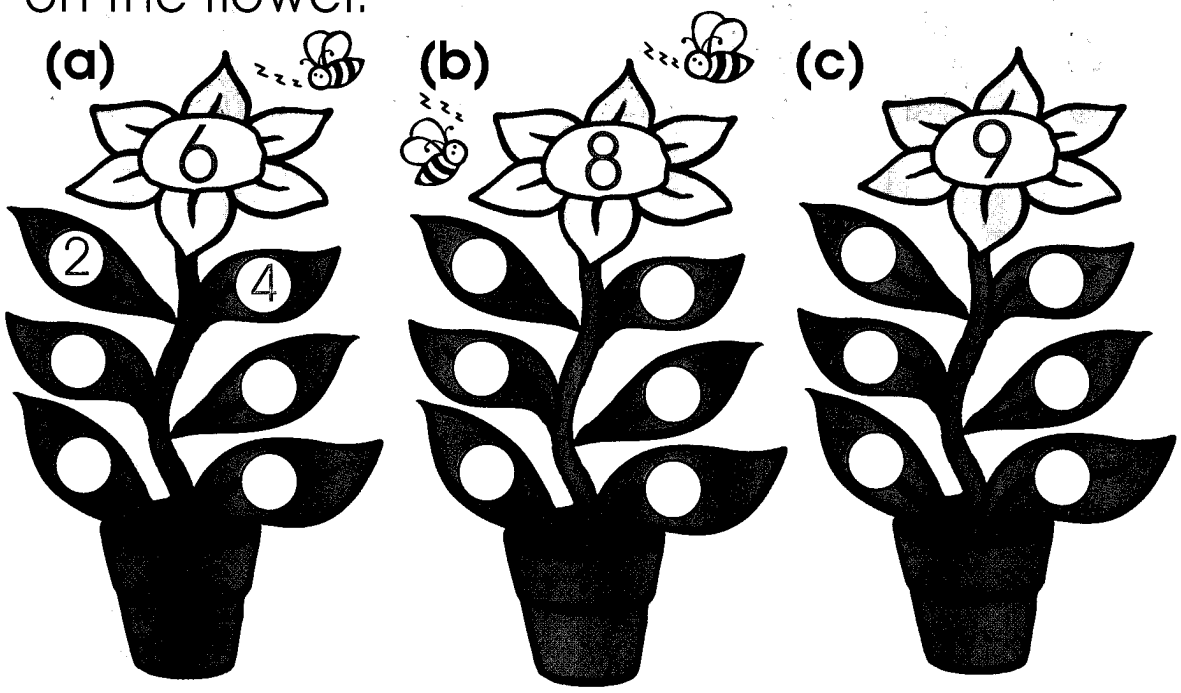
(c) 9 + 1 = □

(d) 5 + 5 = □

Come hop with me!
3 + 4 = ? Start at 3 and jump 4 steps.

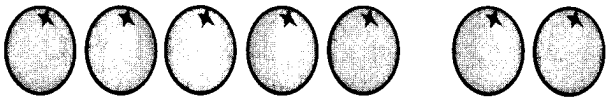


2. Fill in the missing numbers in each pair of leaves so that they add up to the number on the flower.

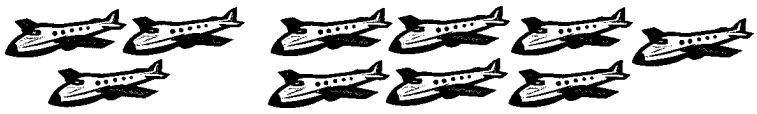


3. Fill in the missing numbers in the following addition sentences.

(a) $\square + 2 = 7$



(b) $3 + \square = 10$



(c) $5 + \square = 8$

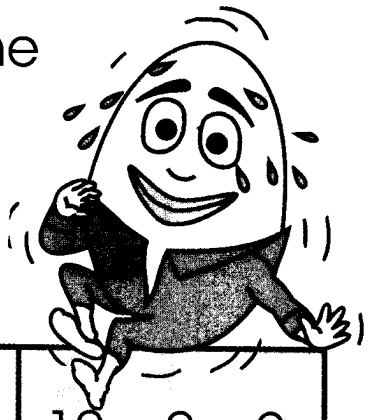
(d) $\square + 7 = 7$

4. Write 2 addition sentences for the picture.

□ ○ □ = □ □ ○ □ = □

Fun With Maths

Help Humpty Dumpty climb down the wall without falling. It is only safe to step on those bricks with the correct answer.

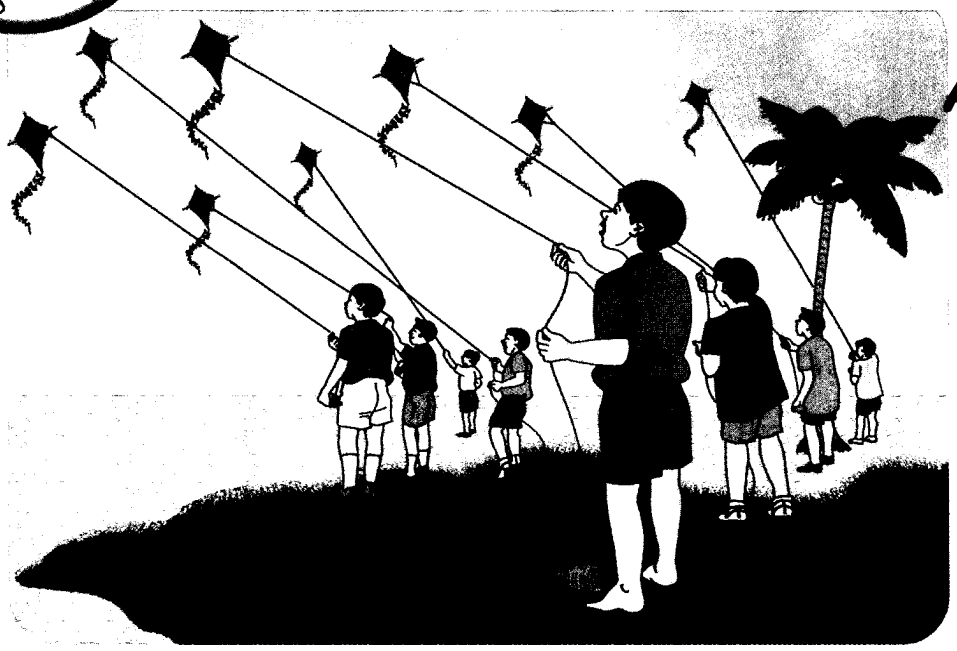


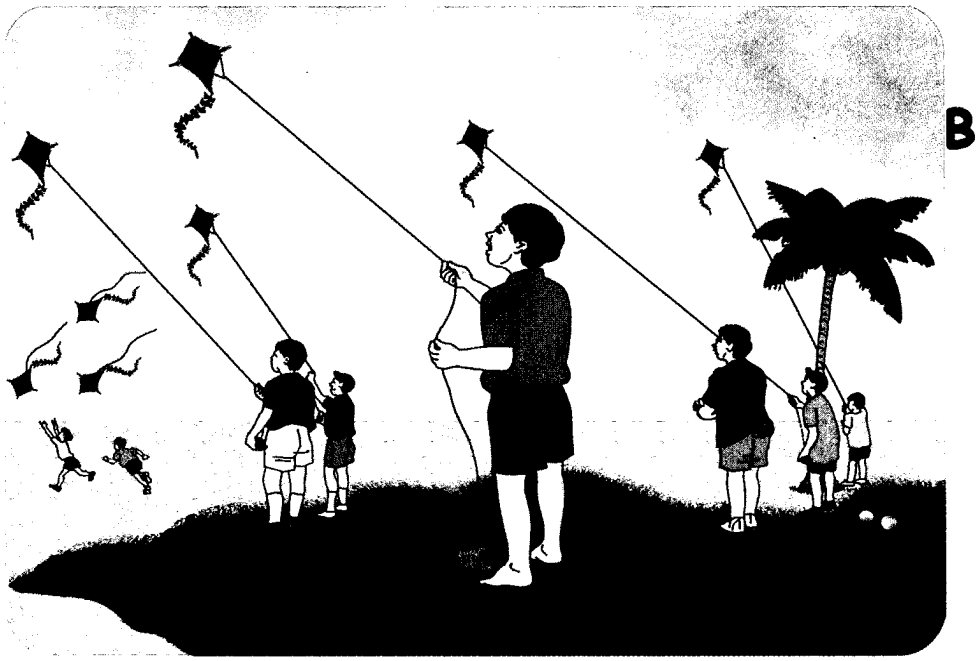
8 + 1 = 10	6 = 1 + 5	7 → 3, 4	10 + 0 = 0
	3 + 6 = 6 + 3	10 = 4 + 6	6 → 2, 5	
7 + 2 = 9	8 + 0 = 8	4 and 1 make six.	Three added to five equals nine.
	4 added to 4 equals eight.	□ + 7 = 10 The missing number is 3.	2 and 5 make 9.	

How many bricks can Humpty Dumpty step on?

CHAPTER 4

SUBTRACTION





Look at the pictures. What is happening in A and B?

Do You Know?

How many kites are flying in the sky in picture A?
How many kites are falling to the ground in picture B?

Let's Learn

Making subtraction stories

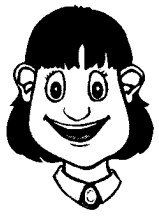
(a) There are 8 kites at first.
3 kites fall down.
There are 5 kites left now.

We say:
3 kites **taken away** from 8 kites **leaves** 5 kites.
We write:

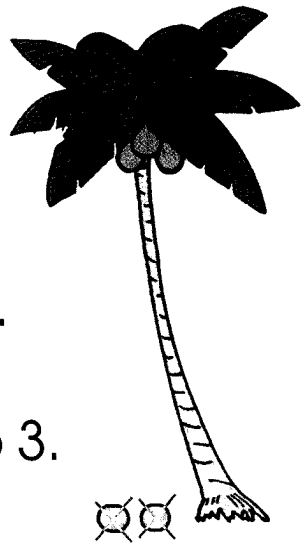
$8 - 3 = 5$

This is subtraction.
It means taking away.

We can also say:
3 **subtracted from** 8 **is equal to** 5.



(b) There are 5 coconuts on the tree at first.



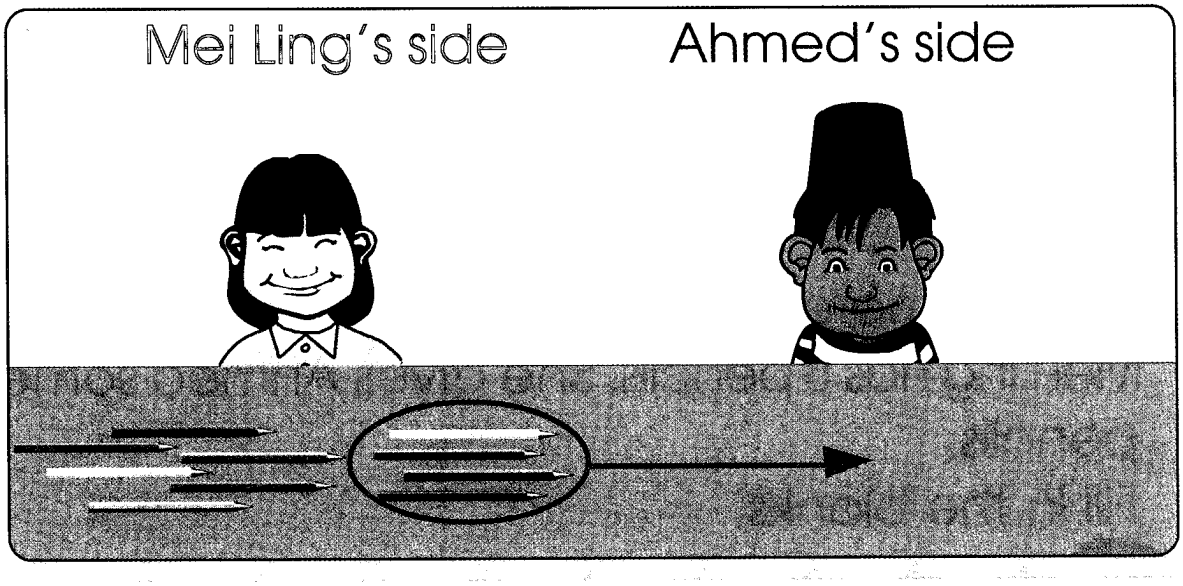
☐ coconuts fall off.

☐ coconuts are left on the tree.

2 **taken away** from 5 **is equal to** 3.

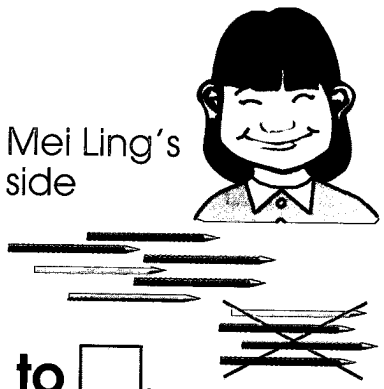
$$5 - 2 = 3$$

Can you make another subtraction story from pictures A and B?



1. Collect 10 objects, e.g. pencils.
2. Put 10 pencils on Mei Ling's side.
3. Move 4 pencils to Ahmed's side.
4. How many pencils does Mei Ling have now?

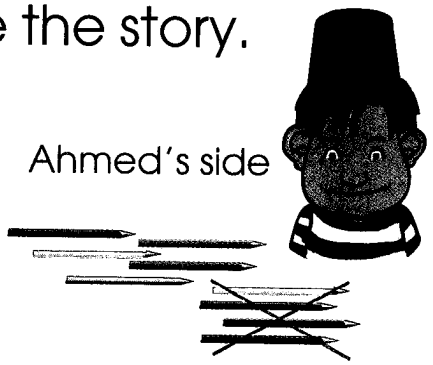
We say:
Mei Ling has 10 pencils at first.
She gives 4 pencils to Ahmed.
Mei Ling has ☐ pencils left.



4 **taken away** from 10 **is equal to** ☐.
10 − 4 = ☐

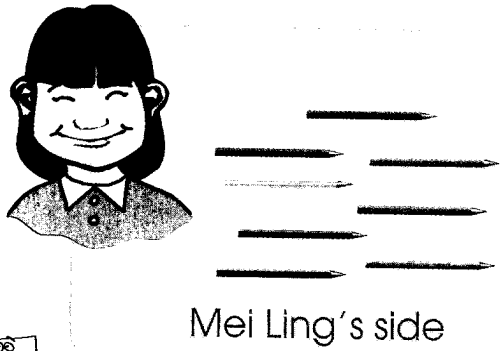
5. Below is another 'take away' story about Mei Ling and Ahmed. Complete the story.

Ahmed has 9 pencils.
He gives Mei Ling 4 pencils.



Ahmed has ☐ pencils left.

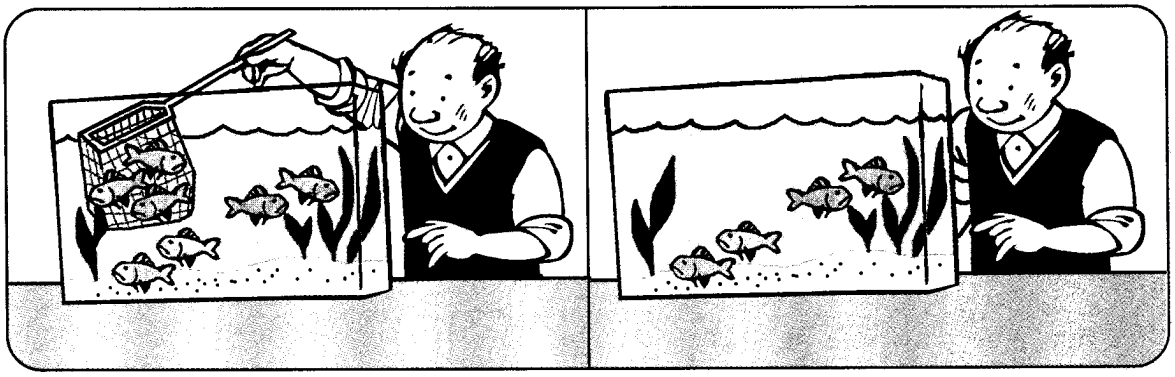
6. Make 1 more subtraction story.
Mei Ling has 8 pencils. She gives Ahmed some pencils.
Fill in the blanks.



☐ taken away from 8 is equal to ☐.
8 − ☐ = ☐

Let's Try

1. There are 7 fish in the tank. 3 fish are taken out with a net. Find out how many fish are left in the tank.

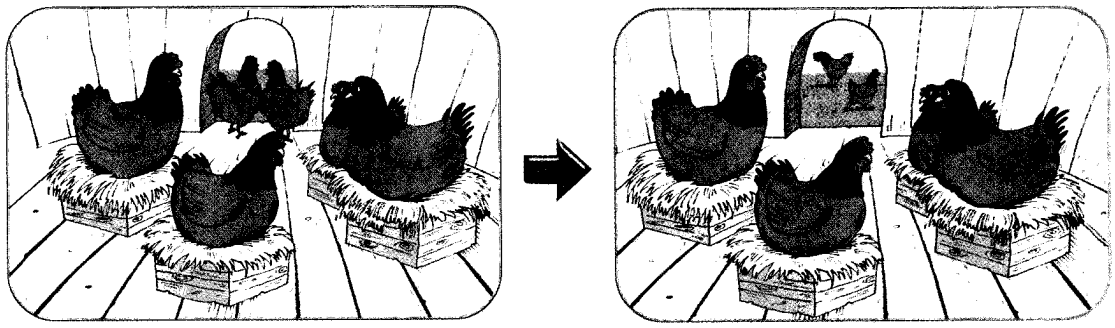


Complete these.

(a) 3 subtracted from 7 is equal to ☐.

(b) 7 − ☐ = ☐

2. Tell a subtraction story.



Mr. Lim has 6 hens on his farm.

☐ hens walk out of the chicken coop.

☐ hens are left inside the chicken coop.

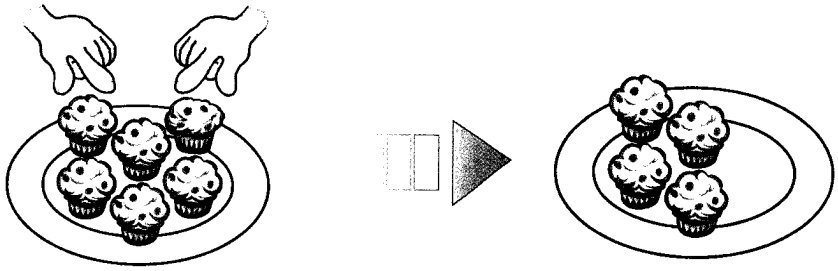
Write a subtraction sentence for this story.

6 ◯ ☐ = ☐

Practice 4A

1. Complete the subtraction stories below.

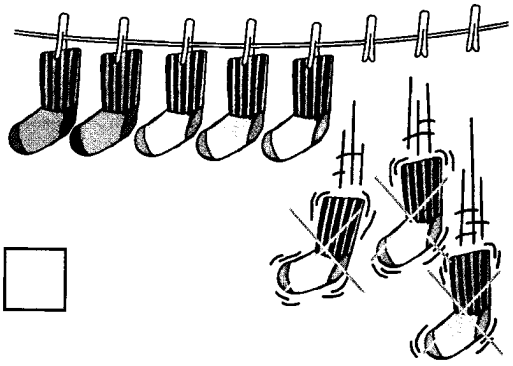
(a)



2 taken away from 6 is equal to ☐.

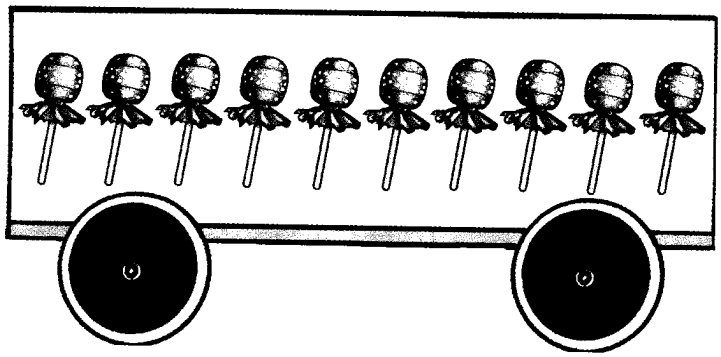
6 − 2 = ☐

(b) 3 subtracted from 8 is equal to ☐.



8 − ☐ = ☐

2. Cross out the lollipops to be taken away. Then fill in the correct answers.

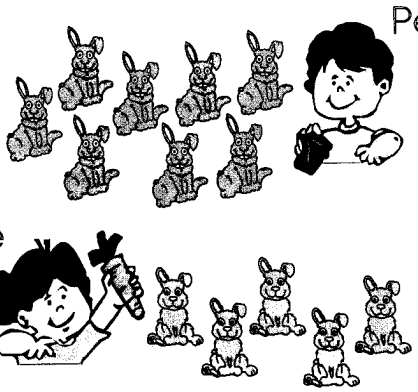


3 taken away from 10 is equal to ☐.

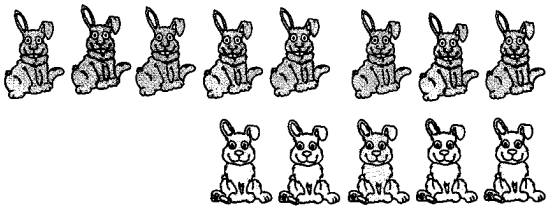
☐ − 3 = ☐

Let's Learn

'More than' and 'less than'



Who has more rabbits?
How many more?
Who has fewer rabbits?
How many fewer?



Peter has **more** rabbits.

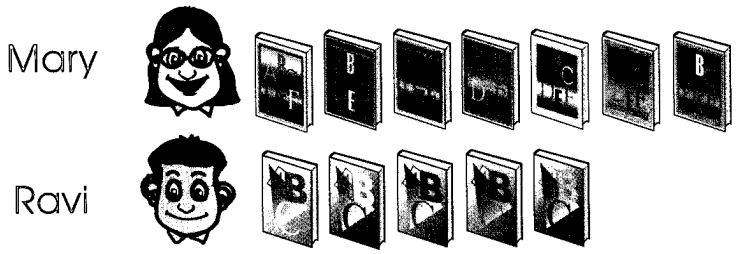
Jane has **fewer** rabbits.

We say: 8 is 3 **more than** 5
5 is 3 **less than** 8.

We write: 8 – 5 = 3.

Peter has 3 rabbits more than Jane
or Jane has 3 rabbits fewer than Peter.

Let's Try



1. Who reads more books? How many more?

7 – ☐ = ☐

Mary reads ____ books more than Ravi.

2. Who reads fewer books? How many fewer?

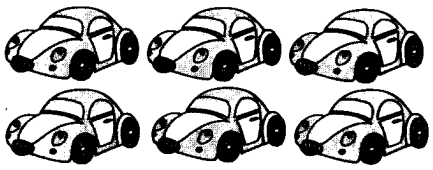
7 – ☐ = ☐

Ravi reads ____ books fewer than Mary.

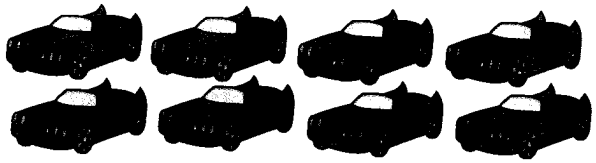
Practice 4B

1. Compare and write how many more.

Andy's toy cars



Ali's toy cars

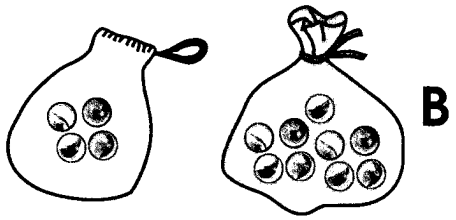


☐ − 6 = ☐

Ali has ____ toy cars more than Andy.

2. Which bag has fewer marbles?
How many fewer?

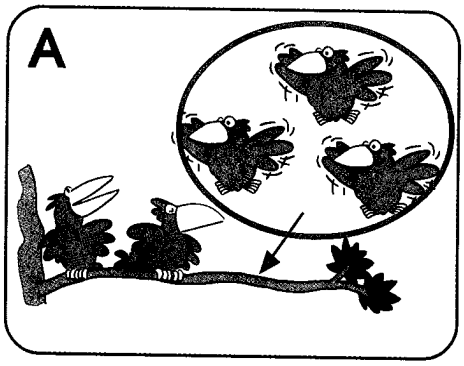
9 − ☐ = ☐

A  B

Bag ___ has ___ marbles fewer than bag ___.

Let's Learn

Addition and subtraction

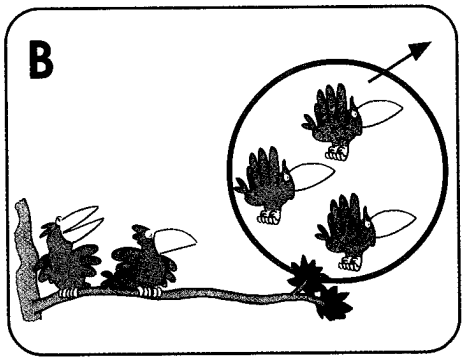


In picture **A**, there are 2 birds in the tree and 3 birds are flying in to join them.

3 **added to** 2 **is equal to** 5
or 2 + 3 = 5

There are 5 birds altogether.

In picture **B**, there were 5 birds at first. 3 birds flew away.



3 **taken away from** 5 **is equal to** 2 or 5 – 3 = 2

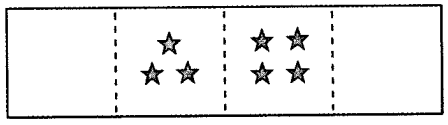
There are 2 birds left.

Subtraction is the opposite of Addition.

In-Class Activity

Make a flip-flap card with your teacher's help.

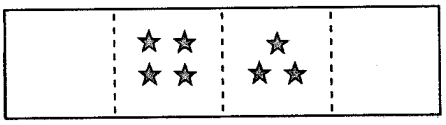
1. Draw pictures on the flip-flap card.



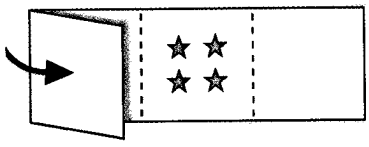
3 + 4 = 7

2. Make addition stories.

Turn the card upside down to get 4 + 3 = 7.

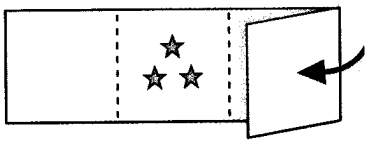


3. Fold one side. Write a subtraction sentence.



7 – 3 = 4

4. Fold the other side. Make another subtraction sentence.

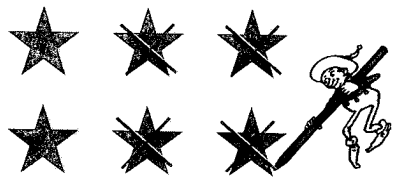


7 – 4 = 3

Look at this example.

$2 + 4 = 6$

$6 - 4 = 2$



Cross out the stars you have to take away. Then complete the number sentences.

1. $5 + 3 = 8$

$8 - 3 = \square$

2. $9 + 1 = 10$

$10 - 1 = \square$

Fun With Math

Shade 3 boxes that have the same answer.

$3 + 3$	$4 - 3$	$10 - 1$
$7 + 3$	$3 + 6$	$8 - 4$
$4 + 5$	$10 - 6$	$9 - 7$

CHAPTER 5

ADDITION AND SUBTRACTION WITHIN 20

Jenny's Mom

Sarah's Mom

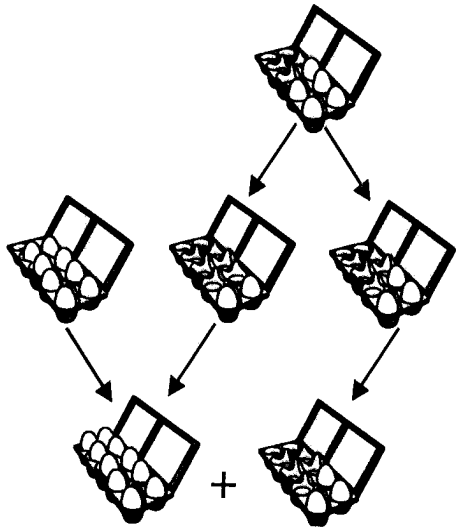
How many eggs did Jenny's Mom buy?
How many eggs did Sarah's Mom buy?
How many eggs did both buy altogether?

Let's Learn

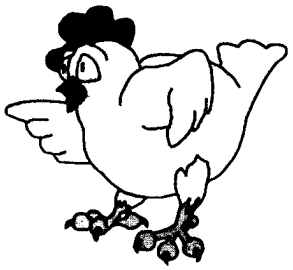
Addition within 20

1. To add 8 eggs and 5 eggs, we can 'make a ten' first.

$$8 + 5 = 10 + 3$$
$$= 13$$
$$2 \quad 3$$

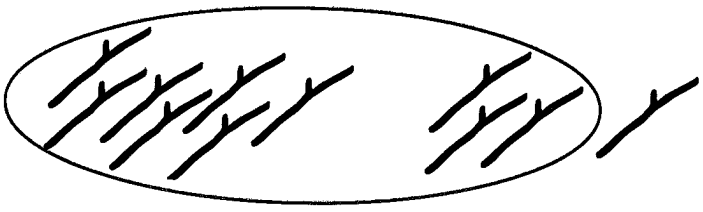


8 and 2 make 10.



2. Look at another example.

$$7 + 4 = 10 + 1$$
$$= 11$$
$$3 \quad 1$$



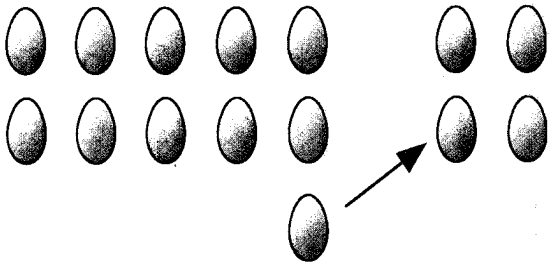
7 and 3 make 10.

There are ☐ sticks altogether.

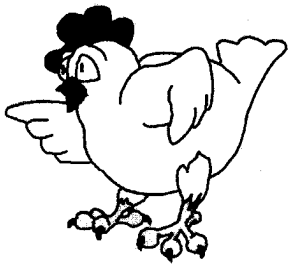
3. Let us add 11 eggs and 4 eggs.

$$11 + 4 = 10 + 5$$
$$= 15$$

10 1

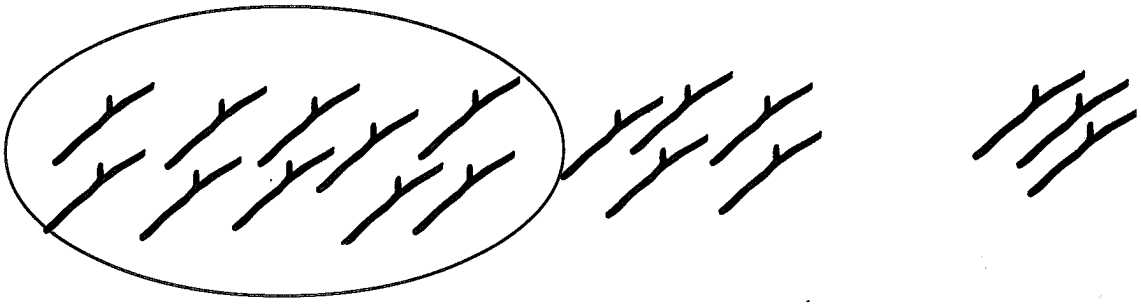


4 and 1 make 5.



There are 15 eggs altogether.

4. How many sticks are there altogether?



$$15 + 3 = 10 + 8$$
$$= 18$$

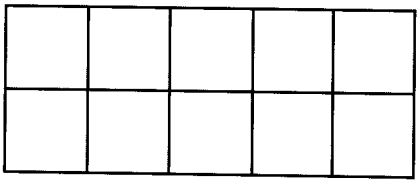
10 5

3 and 5 make 8.

There are ☐ sticks altogether.

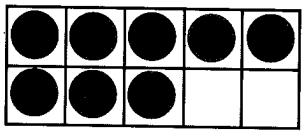
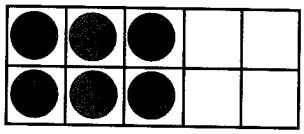
In-Class Activity

Get a worksheet from your teacher. Use the Ten-frames to add. For example, 8 + 6.

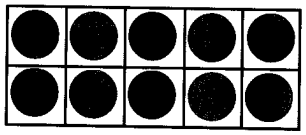
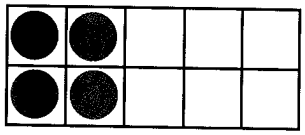


Ten-Frame

Put 8 counters on Ten-frame A and 6 on Ten-frame B.

A   **B**

Move 2 counters from B to A to make a ten.

A   **B**

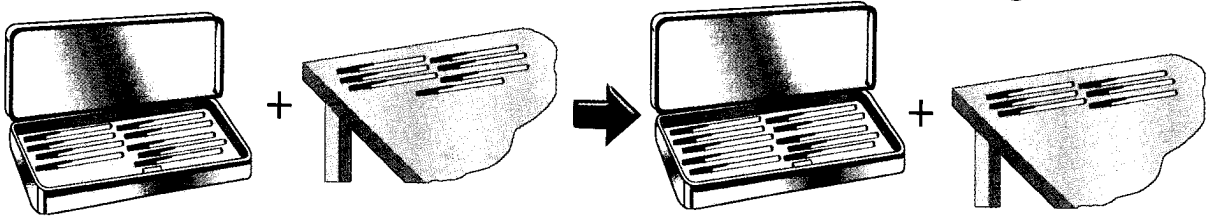
There are 4 counters on B.
So, 8 + 6 = 10 + 4 = 14

Now, use the Ten-frames to do these:

(a) 7 + 7 = ☐ **(b)** 15 + 3 = ☐

Let's Try

1. There are 9 pens in the box and 7 pens on the table. How many pens are there altogether?



9 + 7 = 10 + ☐ = ☐

There are ☐ pens altogether.

2. Count 10 beads and color them green.

Then complete the number sentence:

$10 + \square = \square$

There are ____ beads altogether.

3. How many birds are there altogether?

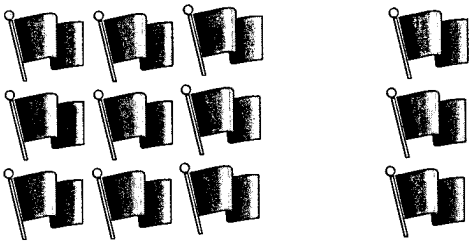
$10 + \square = \square$

There are $\square$ birds altogether.

Practice 5A

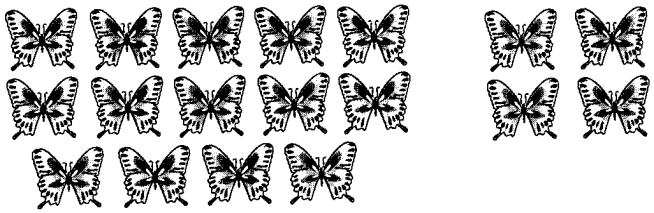
1. Ring a set of ten first. Then complete the number sentence below.

(a)



$9 + 3 = 10 + \square = \square$

(b)



$14 + 4 = 10 + \square = \square$

2. Make a ten and do these.

(a) 8 + 5 = 10 + ☐ = ☐

(b) 7 + 4 = 10 + ☐ = ☐

3. Find the answers below.

(a) 17 + 2 = ☐

10 ☐

(b) 7 + 5 = ☐

☐ 2

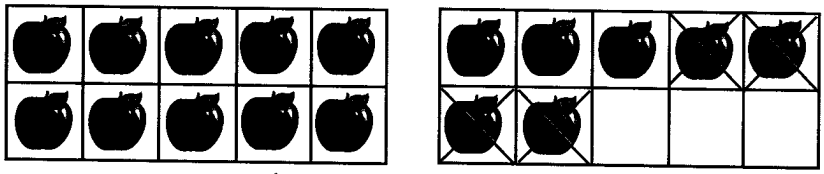
Let's Learn

Subtraction within 20

1. Subtract 4 apples from 17 apples.

17 − 4 = ☐

10 7



10 3

So, 17 − 4 = 13

13

2. Take away 3 from 14.

14 − 3 = ☐

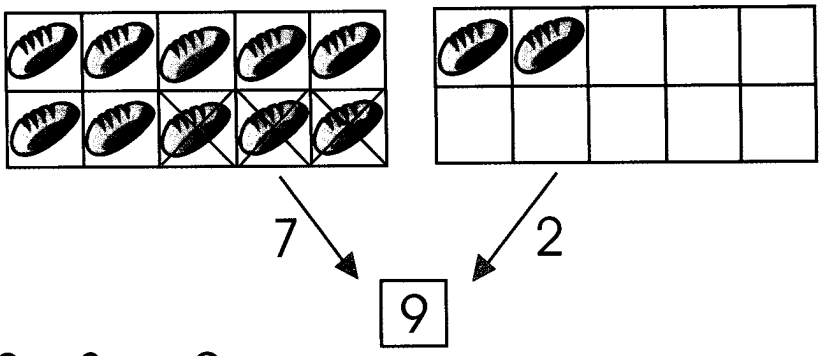
10 4

10 1

So, 14 − 3 = 11

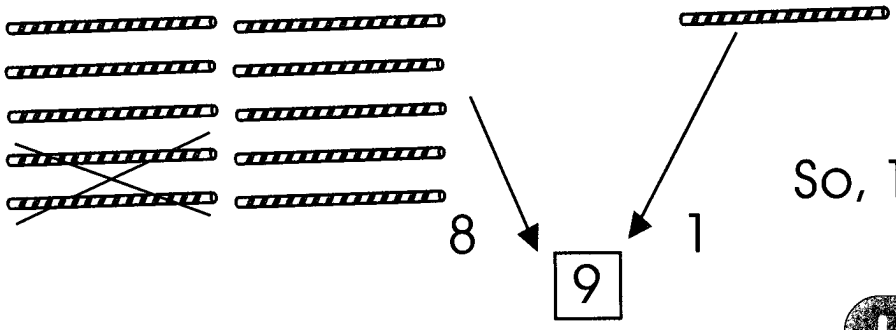
11

3. Subtract 3 buns from 12 buns.



So, 12 – 3 = 9

4. Can you find out what 11 – 2 is?



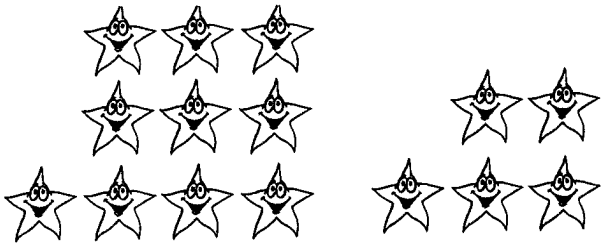
So, 11 – 2 = 9

Let's Try

1. Cross out the correct number of stars and find the answer.

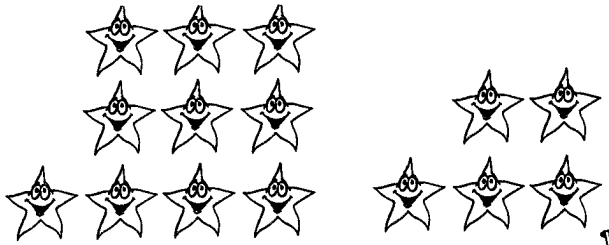
(a) 15 – 7 = ☐

10 ☐



(b) 15 – 3 = ☐

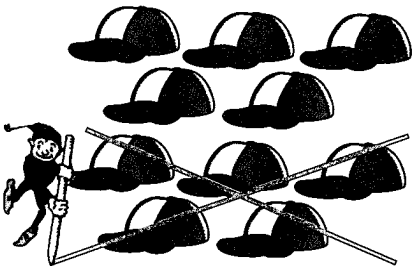
10 ☐



Practice 5B

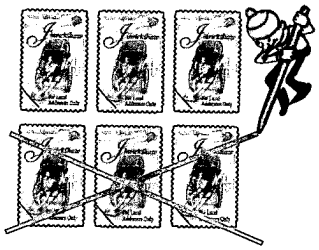
1. Complete the subtraction sentences.

(a)



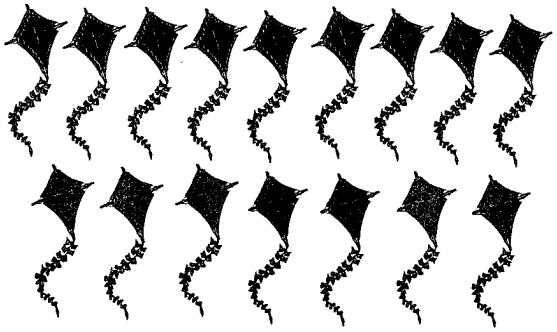
13 − 5 = ☐

(b)



16 − ☐ = ☐

2. Complete the number sentence.



16 − ☐ = ☐

3. Fill in the blanks.

(a) 12 − 4 = ☐

(b) 17 − 3 = ☐

Let's Learn

Story sums

Alice is having a party at home.

How many children are there at the party?

How many more girls than boys are there?

Mother cuts the cake into 15 pieces. If each child eats 1 piece, how many pieces are left?

Let's Try

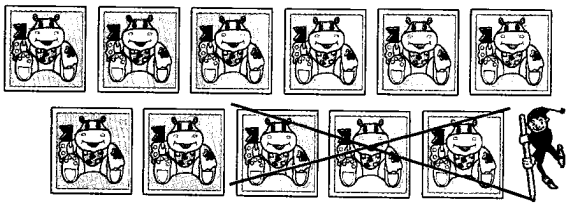
1. David has 5 marbles. Mother gives him 2 more. How many marbles does he have now?

5 ◯ 2 = □

David has □ marbles now.

2. Ali has 11 stickers. He gives away 3 to John. How many stickers does he have left?

11 ◯ 3 = □



Ali has □ stickers left.

3. Jenny has 13 coins. Kate has 9 coins. Who has more coins? How many more?

Jenny

13 ◯ 9 = □

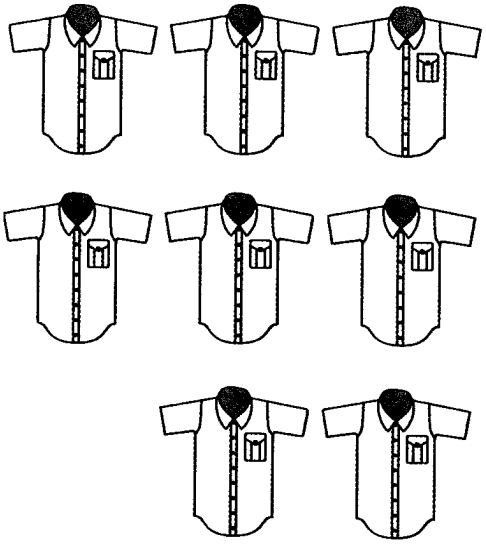
Kate

_____ has □ more coins than _____.

Practice 5C

Write the correct sign (`+' or `–') and find the answer.

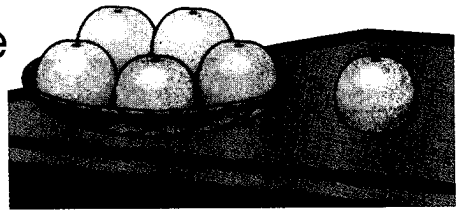
1. There are 8 shirts. When 3 of them got dirty, how many are still clean?



8 ◯ 3 = □

□ shirts are still clean.

2. There are 5 oranges in the basket. One orange is outside the basket.

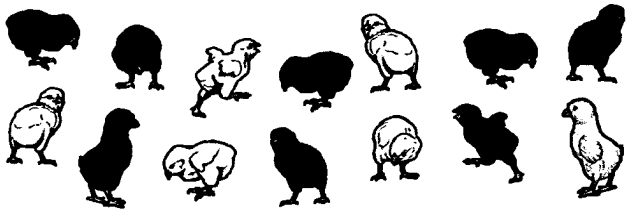


How many oranges are there altogether?

5 ◯ 1 = □

There are □ oranges altogether.

3. Joyce has 14 chicks. 6 of them are yellow and the rest are black. How many chicks are black?

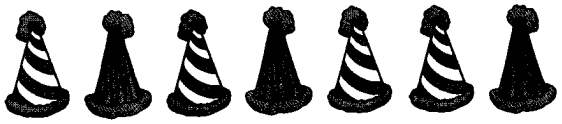


14 ◯ 6 = □

□ chicks are black.

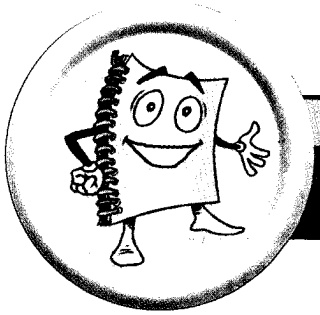
4. Betty made 9 party hats on Monday and 7 party hats on Tuesday. How many party hats did she make altogether?

Monday 

Tuesday 

□ ◯ □ = □

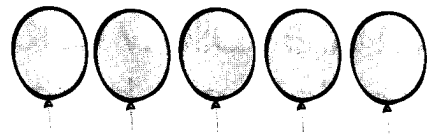
Betty made □ party hats altogether.

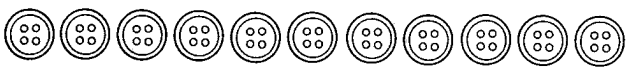


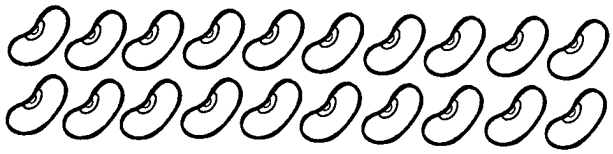
REVISION 1

Exercise 1

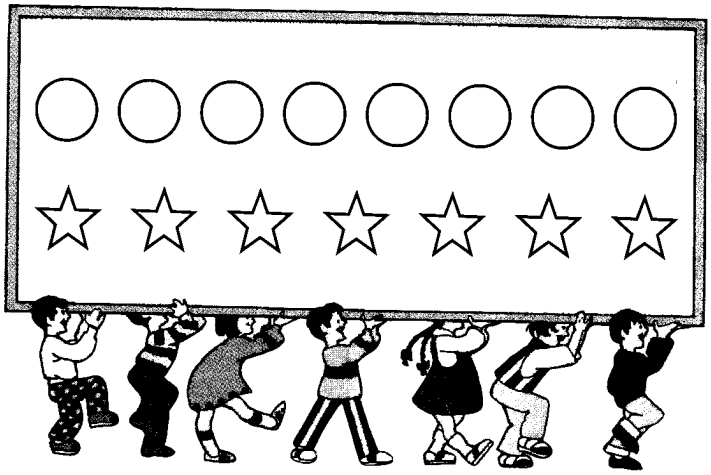
1. Match each set to the correct number.







2. Write the number of things in each set in words. Then color the set that has more.

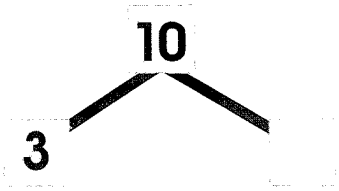


_____

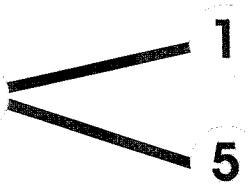
_____

3. Complete the number bonds below:

(a)



(b)

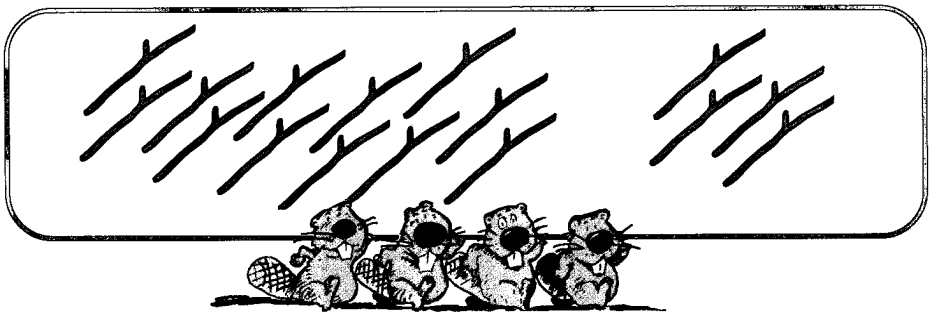


4. Look at the picture and fill in the boxes.

$4 + \square = 9$

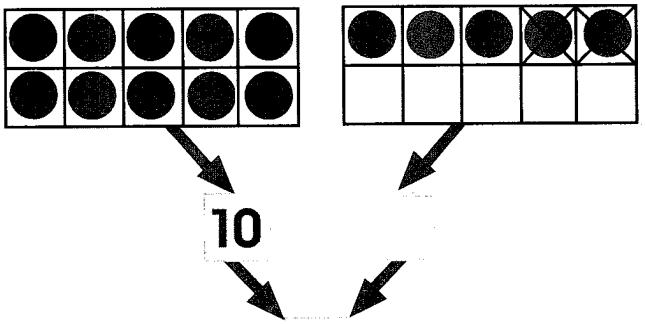
$9 - 5 = \square$

5. Make a ten and add.



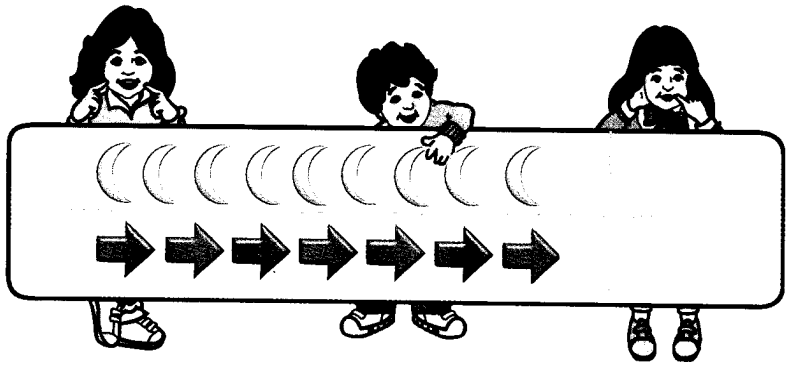
$12 + 4 = 10 + \square = \square$

6. Fill in the correct numbers and take away 2 from 15.



$15 - 2 = \square$

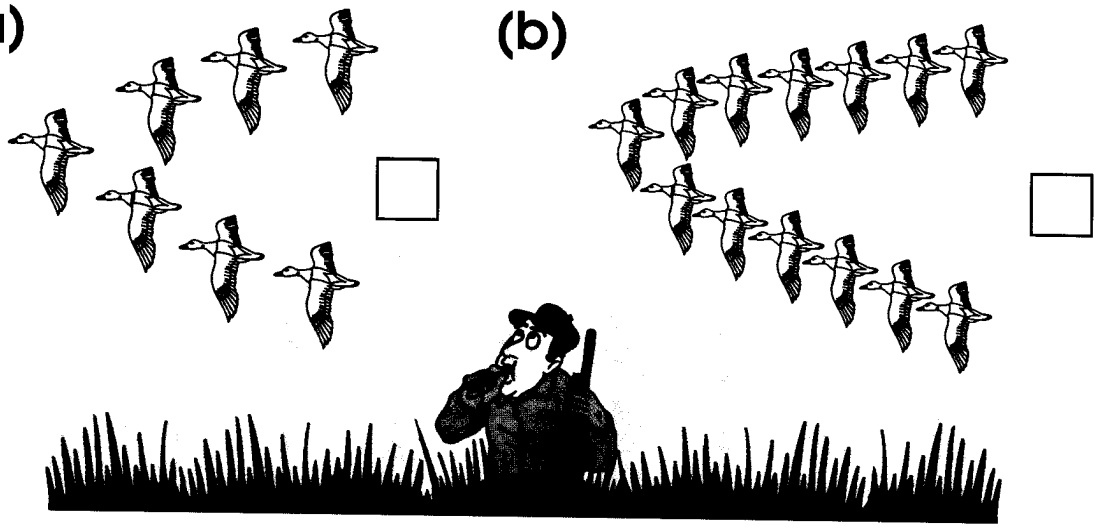
7. Tick the set that has less items.



Exercise 2

8. How many birds do you see in each picture?

(a) **(b)**



9. Arrange the numbers in order:

(a) from the greatest to the smallest;

8 0 4 6

_____, _____, _____, _____

greatest smallest

(b) from the smallest to the greatest.

15 18 8 13

_____, _____, _____, _____

smallest greatest

10. What is the mystery number?

Clues

* Less than 10
* Greater than 5
* The number starts with the letter 'e'.

The number is _____.

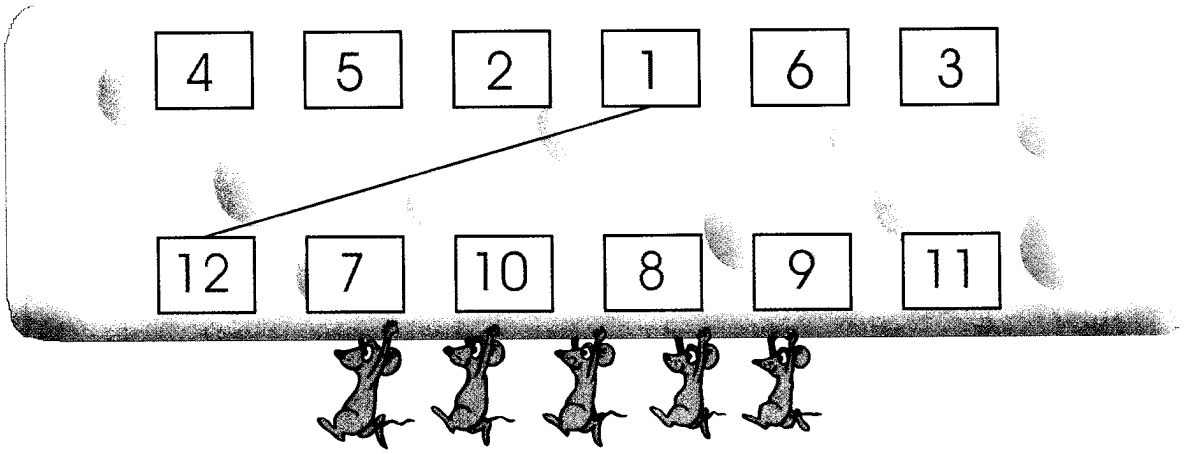
11. Fill in the missing numbers.

(a) 3 and ☐ make 7.

(b) 6 added to 9 gives ☐.

(c) 5 + ☐ = 10 **(d)** 12 − 3 = ☐

12. Match the pairs of numbers that make 13.

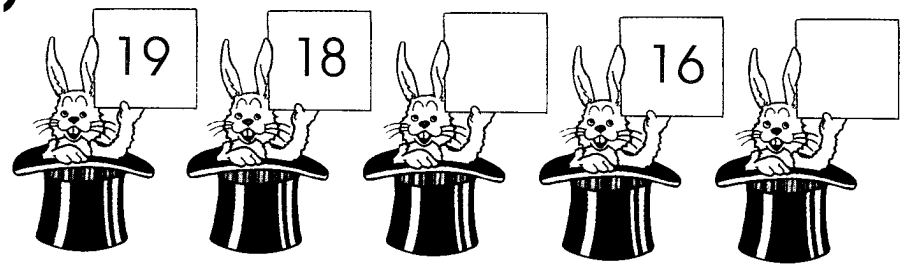


13. A clown gives away 5 green balloons and 7 red balloons. How many balloons does he give away altogether?

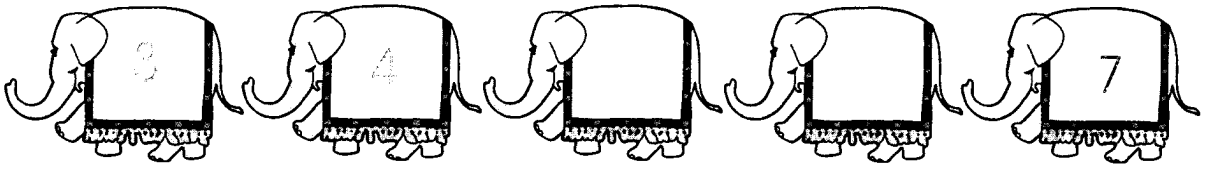
Exercise 3

14. Complete the following number patterns.

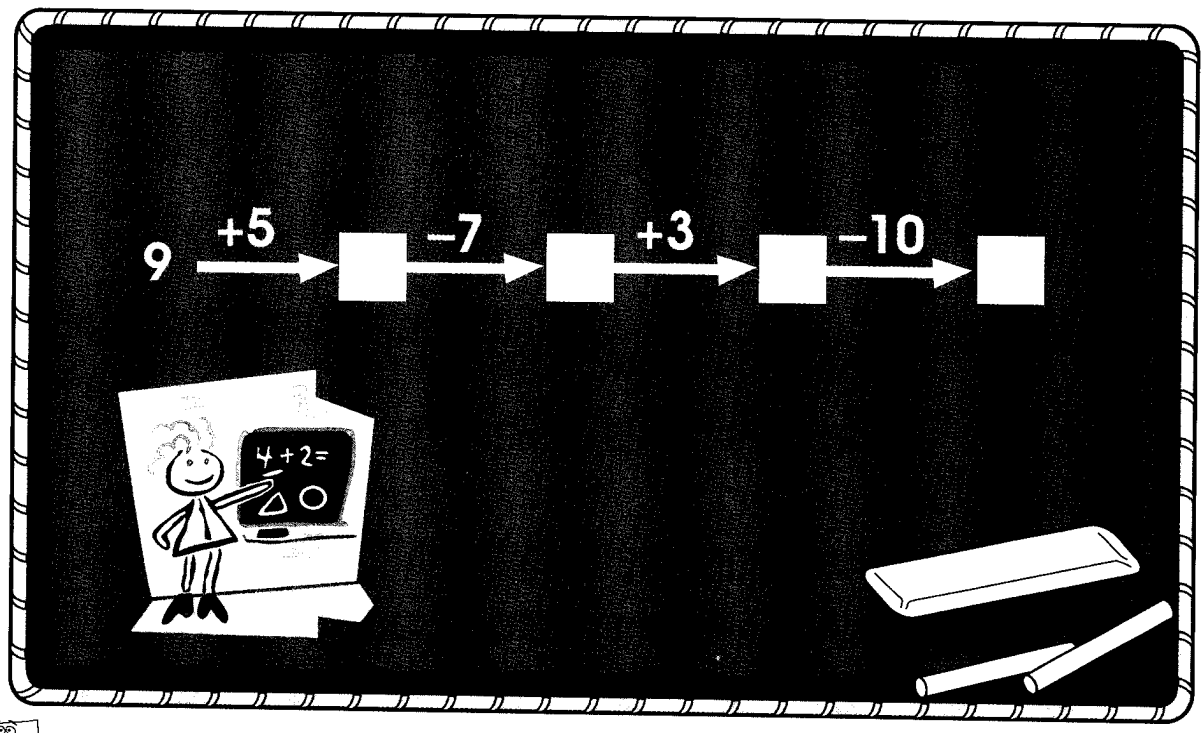
(a)



(b)



15. Write the correct answer in each box.



16. Fill in the missing numbers.

(a) 13 + 4 = 10 + ☐ = ☐

(b) 11 − 6 = ☐

(c) 8 + 7 = ☐

(d) 17 − 9 = ☐

17. **(a)** Ken has 9 stamps. Father gives him 7 more stamps. How many stamps does Ken have now?

Ken has ____stamps now.

(b) If he gives away 5 stamps to his sister, how many stamps will he have left?

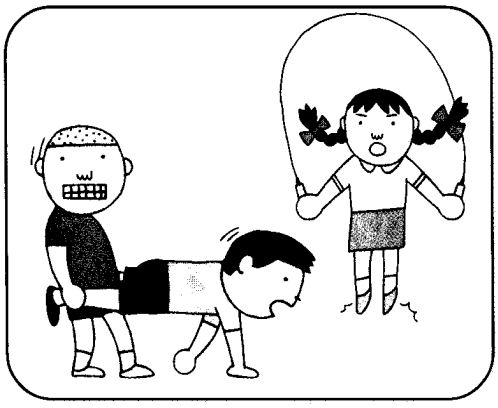
He will have ____ stamps left.

CHAPTER 6

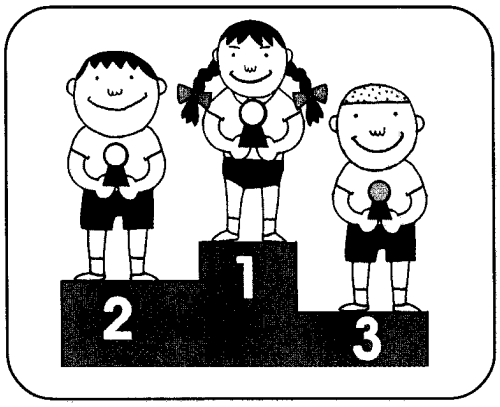
ORDER WITH NUMBERS

Look at the children standing in the line.
What color T-shirt is the first boy in the line wearing?
Which child is standing behind the girl in the blue dress?
How many children do you see in the line?

Do You Know?



Numbers are used for counting.



Numbers are used to tell the order or to name the position.

Let's Learn

Which animal is the winner of the race?

We say:

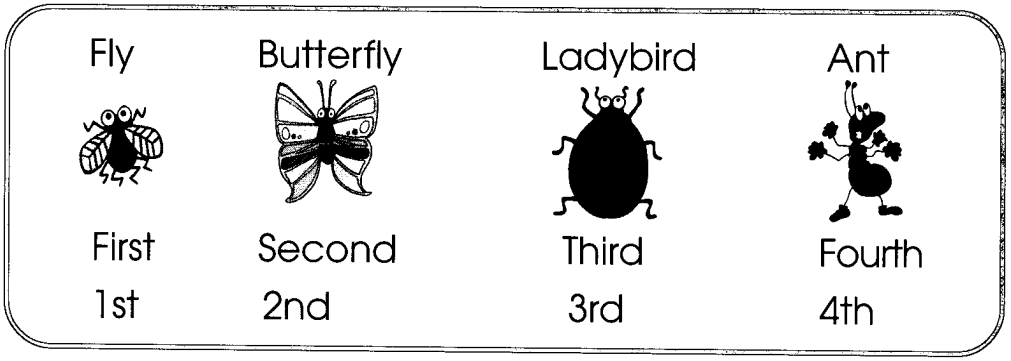
The horse is **first** or the horse is **1st**.

The cat is **second** (**2nd**) in the race.

Can you find out the positions of the other animals in the race?

Look at the picture below. From the left, the ☐ is the first insect.

left

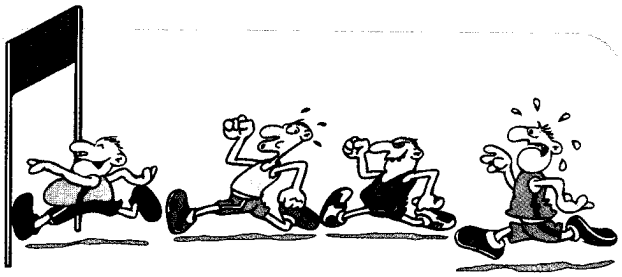


right

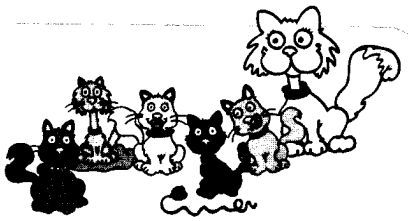
Which insect is first from the right?

Let's Try

1. For each picture, say how the number is used.

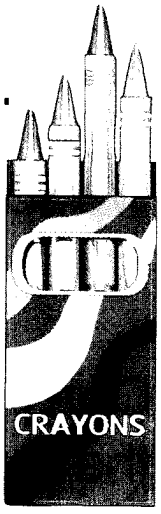


1st 2nd 3rd 4th



The mother cat has 5 kittens.

2. Read the clues. Then color the crayons.

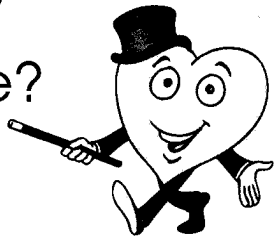


Clues:

- From the left, the red crayon is third and the green crayon is second.
- From the right, the orange crayon is first and the blue crayon is fourth.

1.

3rd

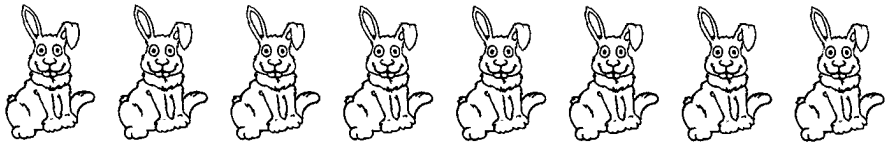


(a) How many hearts do you see?

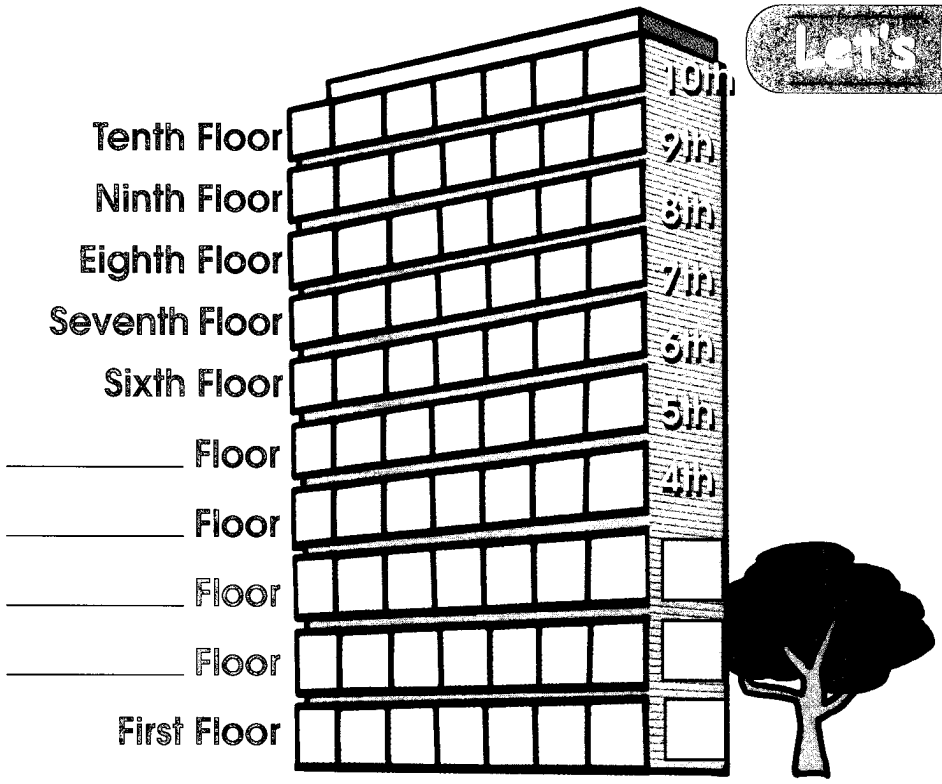
(b) Put a '✔' on the 5th heart.

(c) Ring the 2nd heart.

2. Color the 4th rabbit from your right and ring the second rabbit from your left.



Let's Learn



This apartment block has 10 floors. Name the floors, starting from the top.

Can you think of other examples where numbers are used to name positions or tell order?

In-Class Activity

From your class timetable, copy the periods you have today in the correct order.

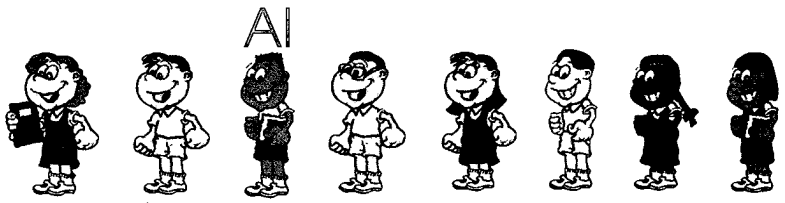
1st	
2nd	
5th	
6th	
10th	

Practice 6B

1. Ring the 7th face. Cross out the 4th face.

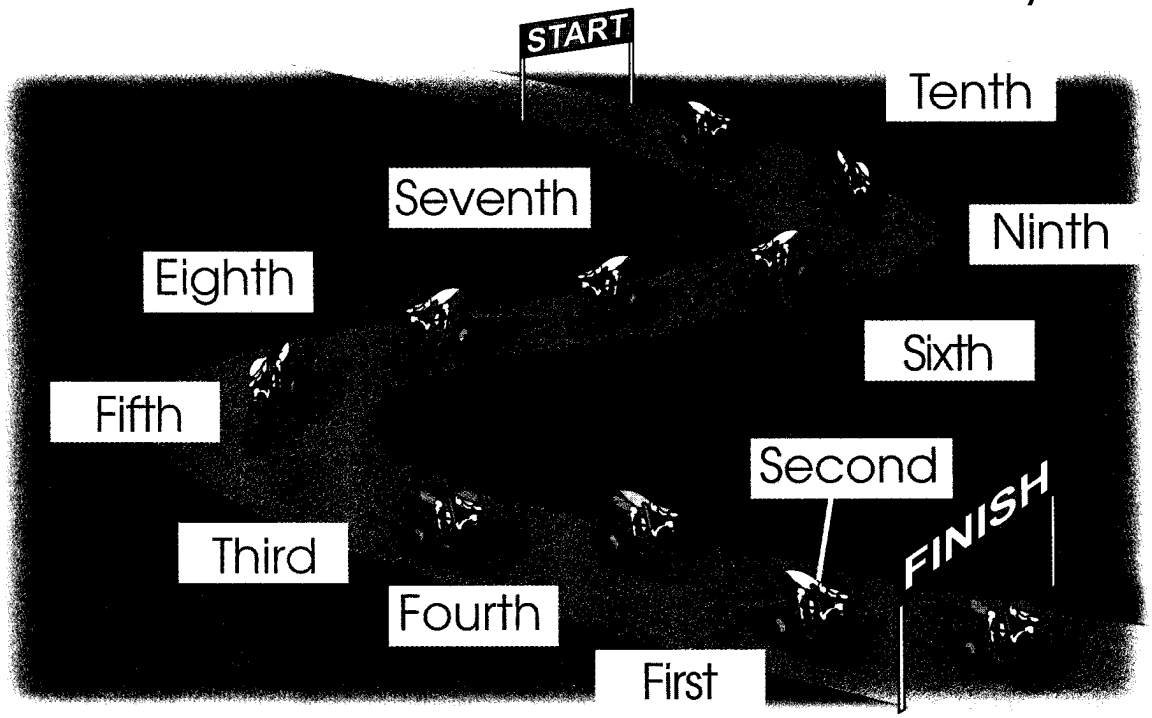
second

2. Eight students are standing in a row. Al is 3rd from the front of the row.

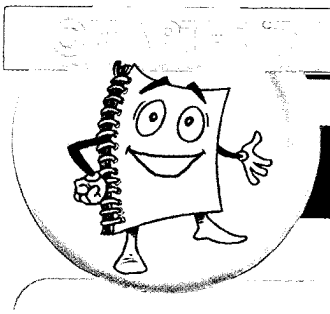


How many students are standing behind Al? ☐

3. The cards tell the position of each cyclist in the race. Match each card to the correct cyclist.



Sit in a circle. Say hello to the third student sitting on your right. Who is the second student to your left? Find out the birthdays of the fifth student to your right and the fourth student to your left.

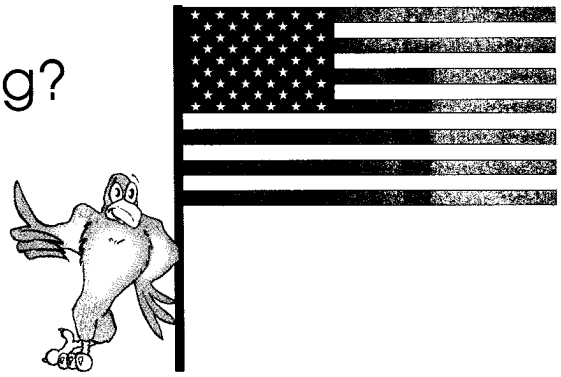


SHAPES

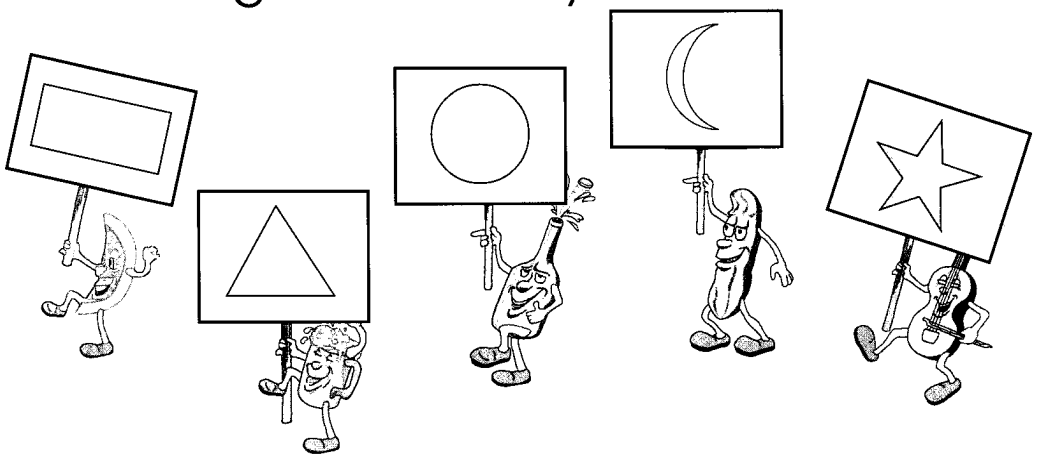
Look around the kitchen. There are many things of different shapes.
Can you name some shapes?

Shapes are all around us.

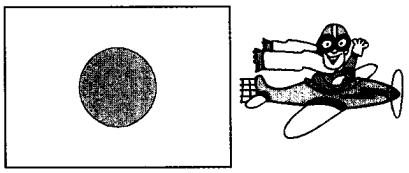
Do you recognise this flag?
What shapes and colors
do you see on it?



Sometimes we can find these shapes on the national flag of a country.

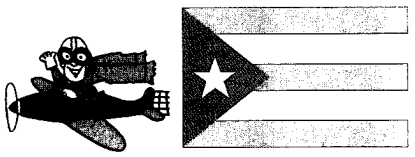


Can you find some of these shapes in the flags below?



Japan

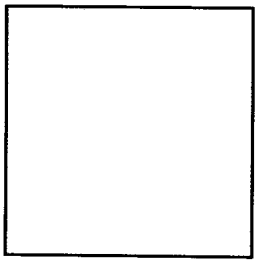
Singapore



Puerto Rico

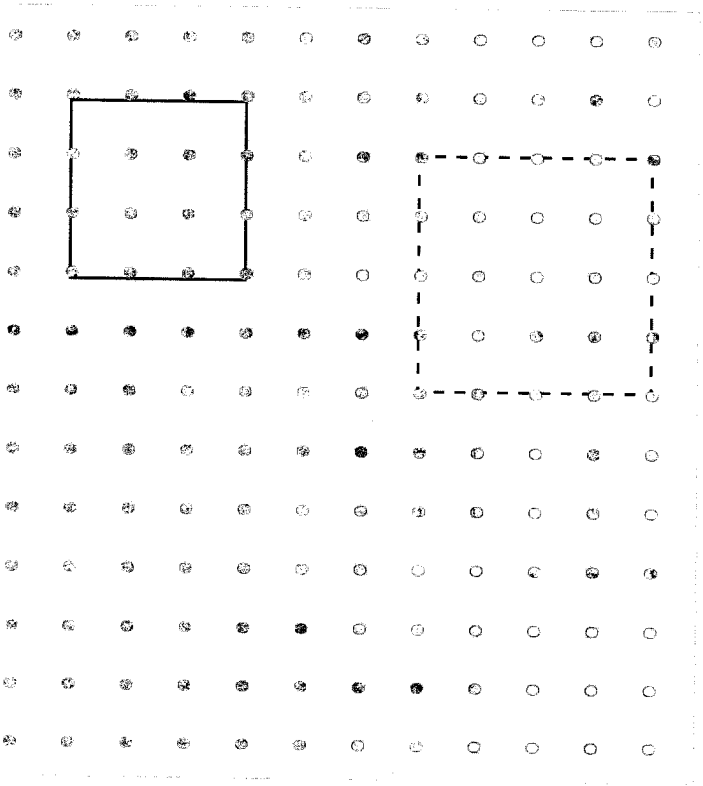
Let's Learn

Square

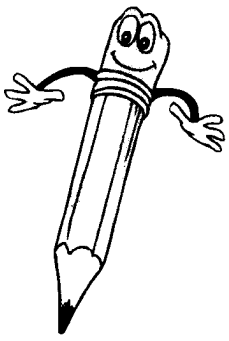


This is a square.

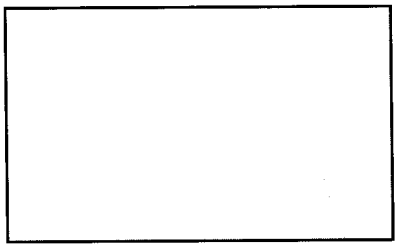
Which of these things have the shape of a square?



Trace out the square in dotted lines. Now draw a bigger square using the dots.

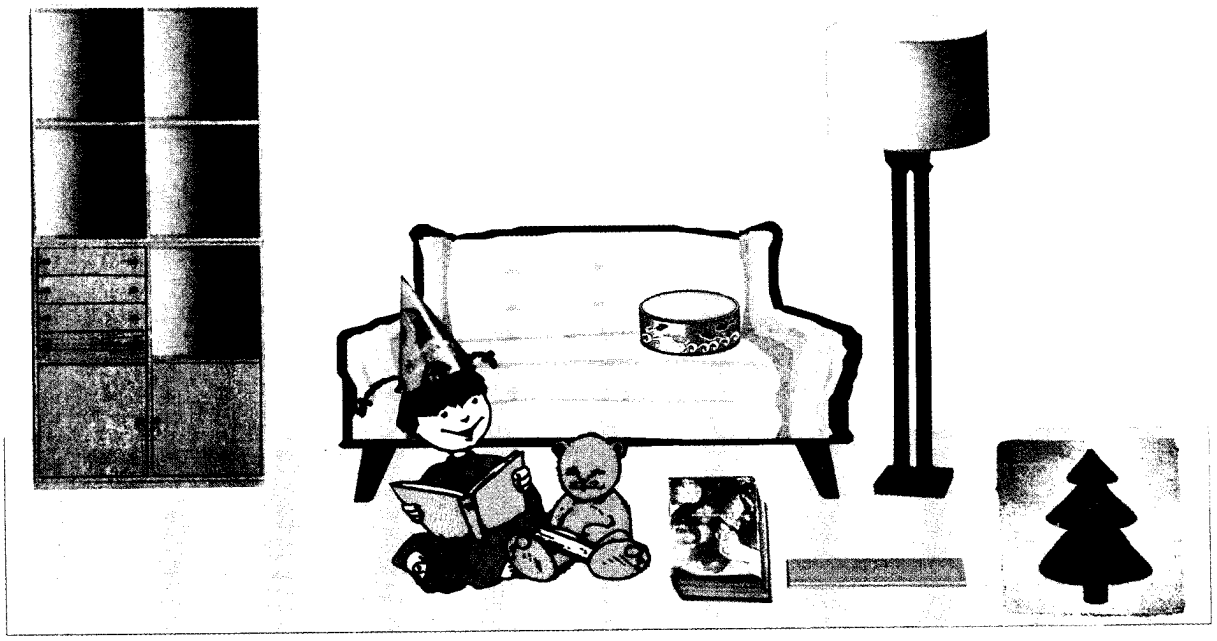


Rectangle



This is a rectangle.

Look at the picture below. Say which things have the shape of a rectangle.

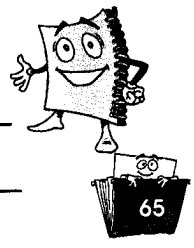


In-Class Activity

Look around your classroom. Find the things that have shapes of a square or a rectangle. Write below the names of four things you have found and their shapes.

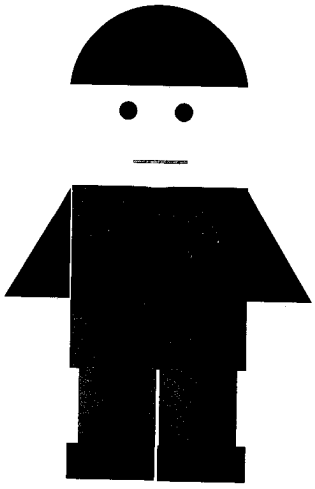
1. _____ **2.** _____

3. _____ **4.** _____



Let's Try

1. Look at the picture carefully.

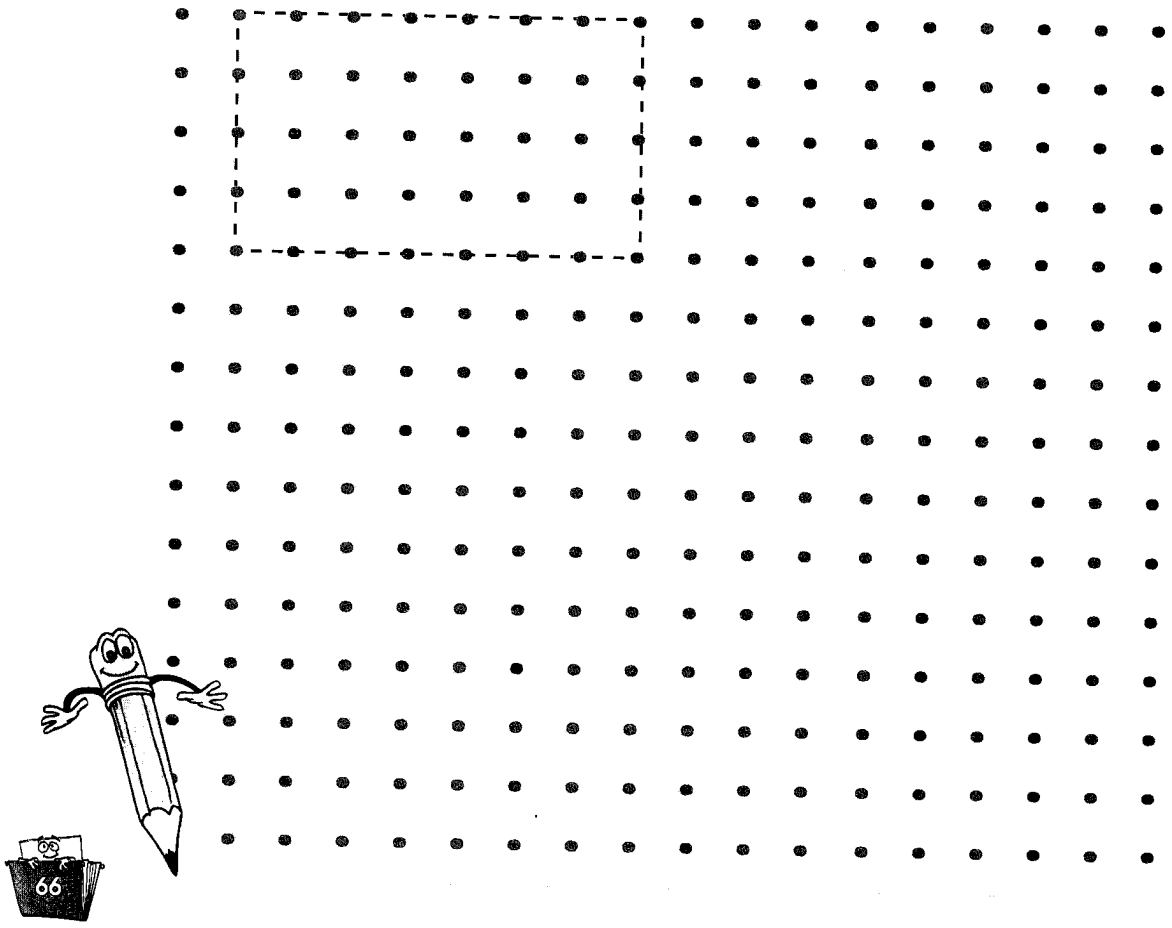


(a) How many squares are there? ☐

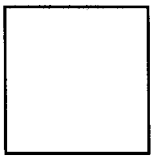
(b) How many rectangles are there? ☐

(c) Do you see any other shapes in the picture? ☐

2. Trace out the rectangle in dotted lines. Then draw a square and a rectangle using the dots.

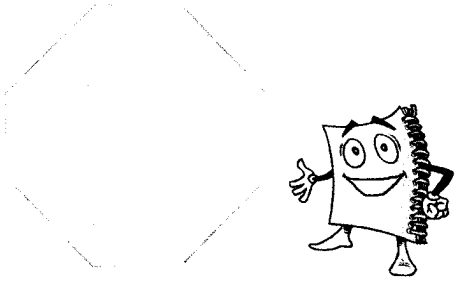


1. Name the shapes shown below.

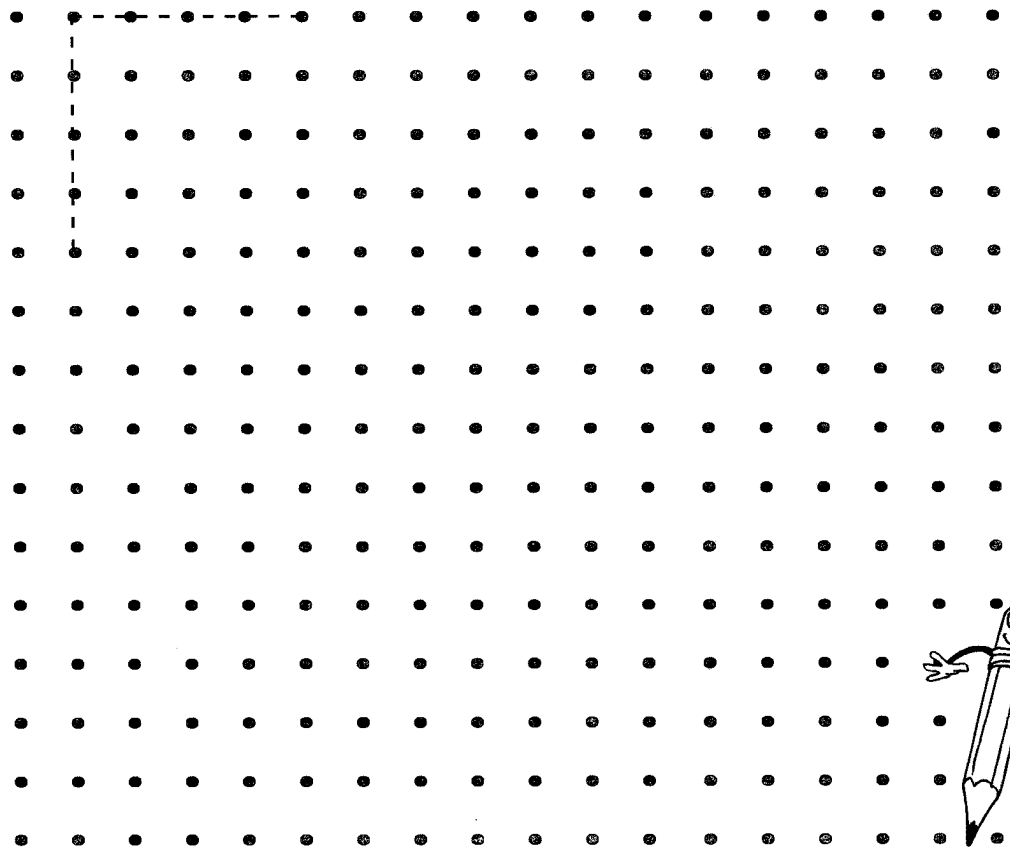
(a) 

(b) 

2. How many squares do you see in the picture?

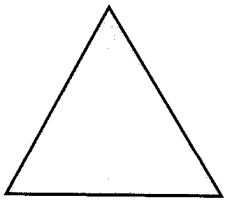


3. Complete the square by joining the dots. Then draw a bigger square next to it. Then draw a rectangle.



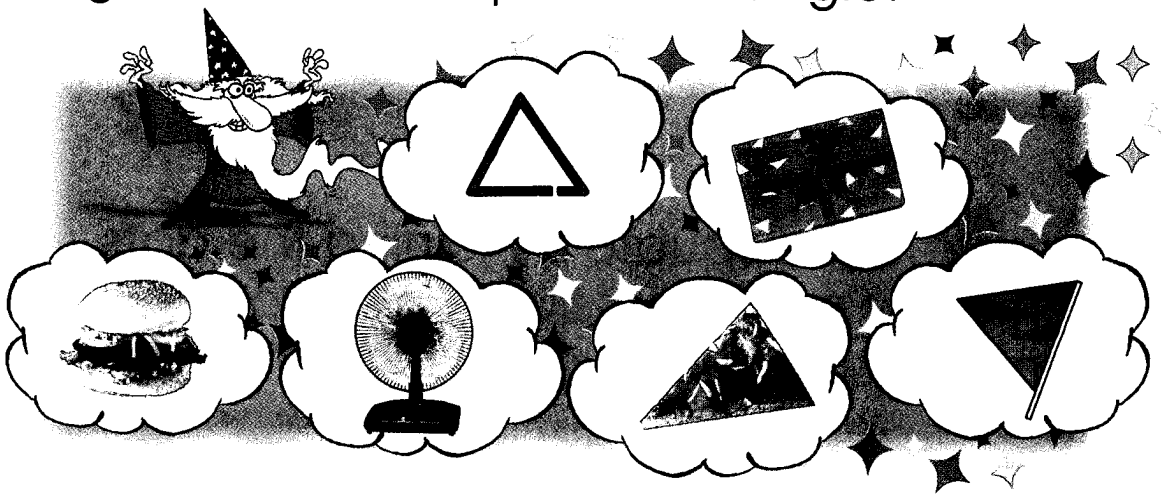
Let's Learn

Triangle



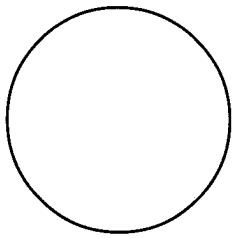
This is a triangle.

Look at the things below. Say which of these things have the shape of a triangle.



Circle

This is a circle.

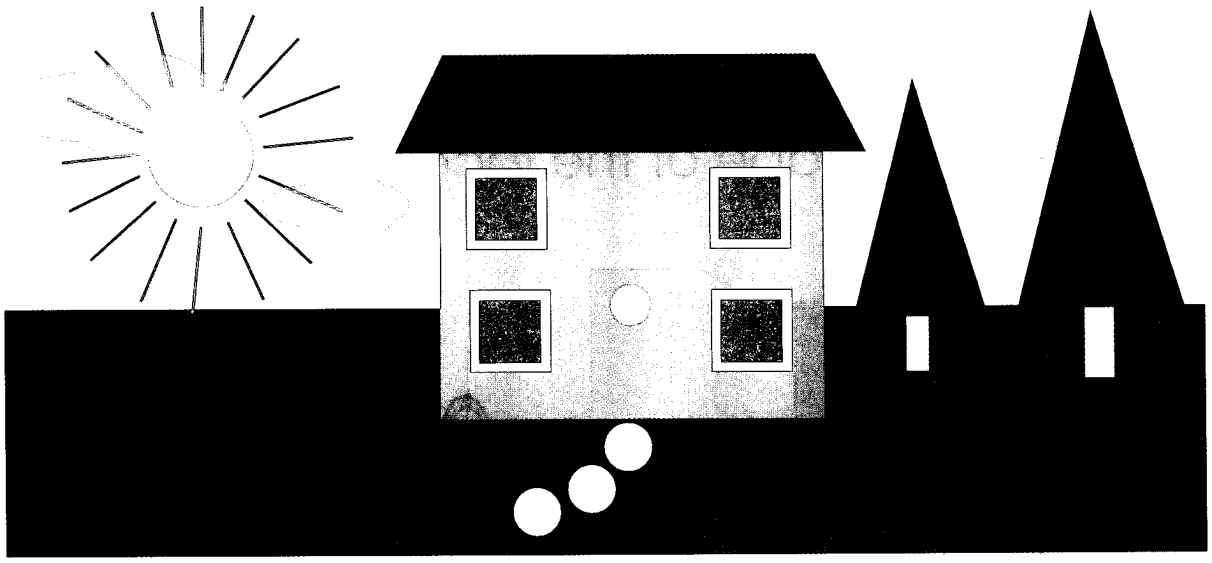


Which of these things have the shape of a circle?

Can you name other things that have the shape of a circle?

Let's Try

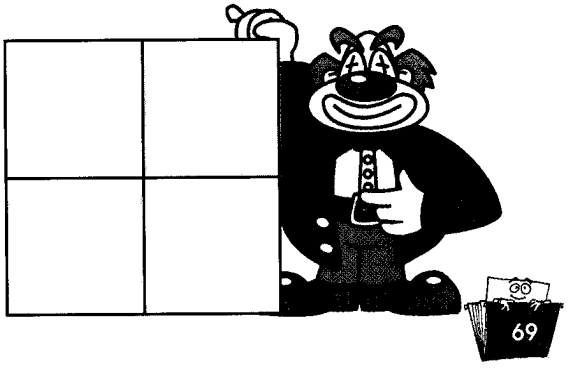
1. Look at the picture below. What shapes do you find? How many of each shape are there in the picture?



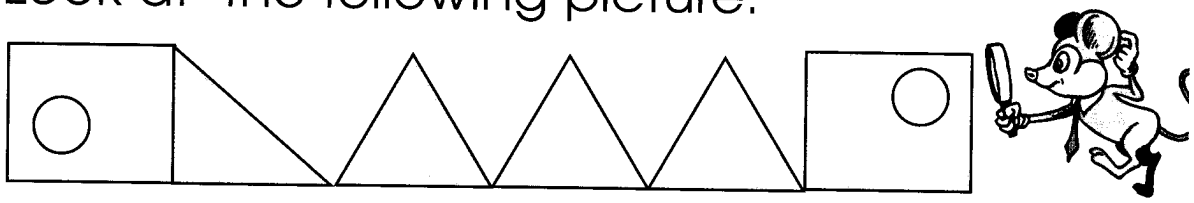
2. Draw 3 of each shape on coloured paper. Cut the shapes out. Make your own picture by pasting the cut-out shapes on drawing paper.

Practice 7B

1. How many squares can you find in the picture?

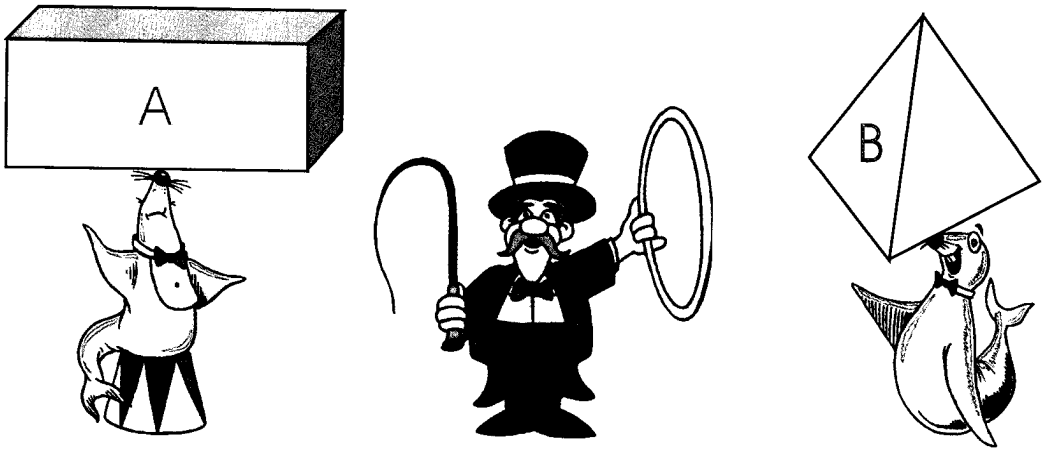


2. Look at the following picture.

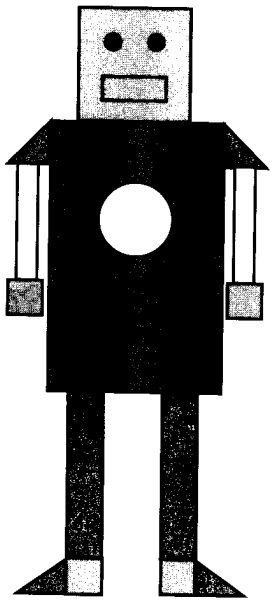


(a) How many triangles do you see?
(b) Name the different shapes in the picture.

3. Name the shape of the faces marked A and B below.



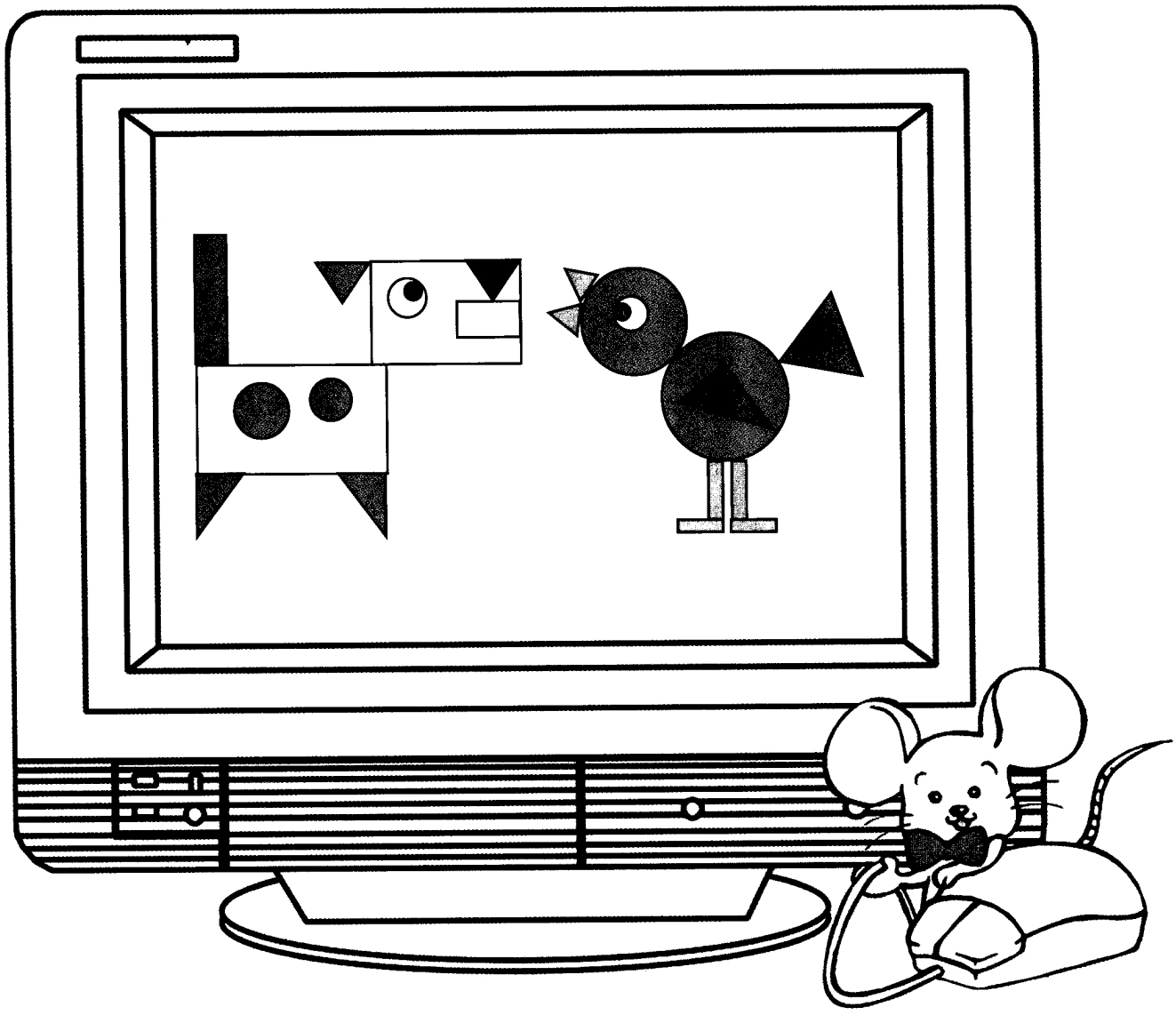
4.



Look at Mr Robot. How many squares, rectangles, triangles, and circles do you see on him?

Create an animal using the shapes that you have learnt. Then draw your animal using the computer.

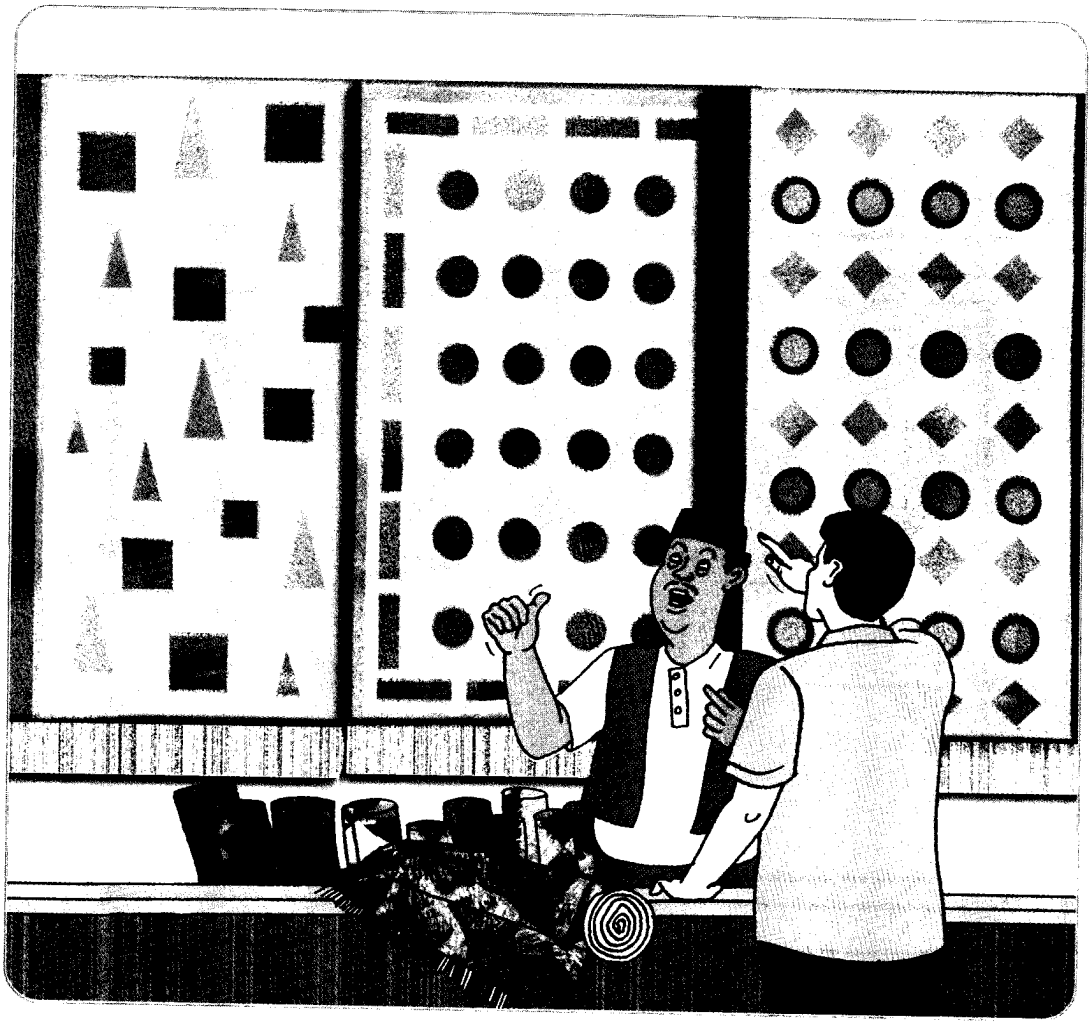
You may ask your teacher to help you.



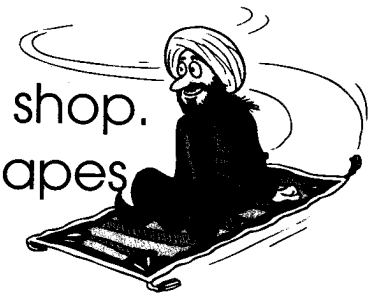
CHAPTER 8

PATTERNS

Hassan's Carpet Shop



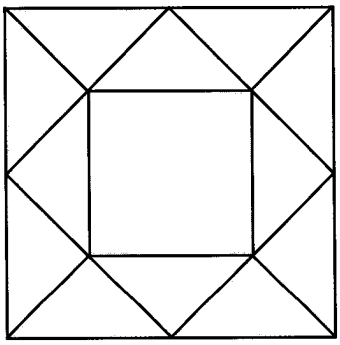
Look at the carpets in Hassan's shop. They have pretty patterns of shapes and colors.



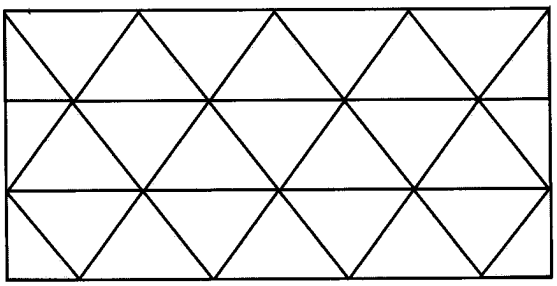
Do You Know?

Patterns can be found on the tiles of floors.

Here are some shapes that fit together to form a pattern.



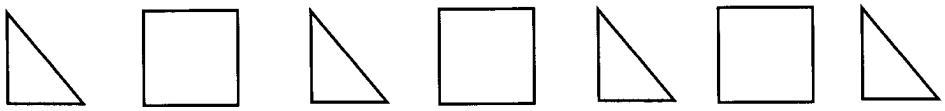
Can you see any patterns on the floor tiles of your home or school?



Let's Learn

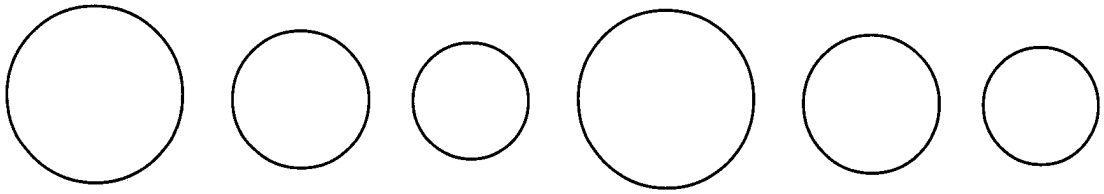
These are rows of shapes arranged in different patterns. What shapes and colors do you find here?

This pattern is arranged according to shape.



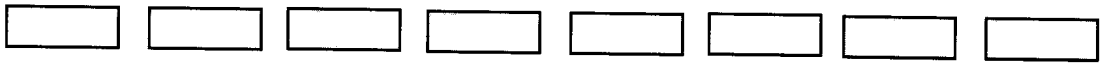
The pattern is triangle, square, triangle, ...

This pattern of circles is arranged according to size.



The pattern is small, smaller, smallest, small, ...

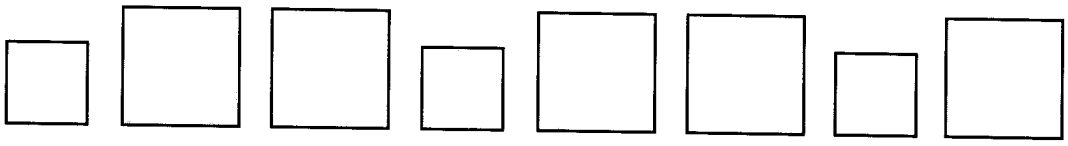
This pattern of rectangles is arranged according to color.



The pattern is green, green, pink, pink, green, ...

What comes next in the pattern above?

This is a pattern of squares arranged according to size and color.



What comes next in this pattern?

In-class Activity

You need a worksheet for this activity.

Make 5 patterns with the shapes provided.
Arrange the shapes according to

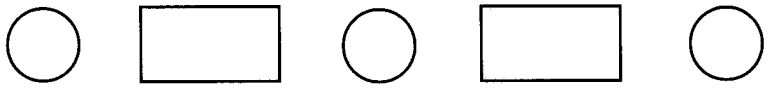
(a) shape **(b)** size **(c)** color
(d) shape and color **(e)** shape and size

Make the patterns by pasting the shapes in the space provided on the worksheet.

Let's Try

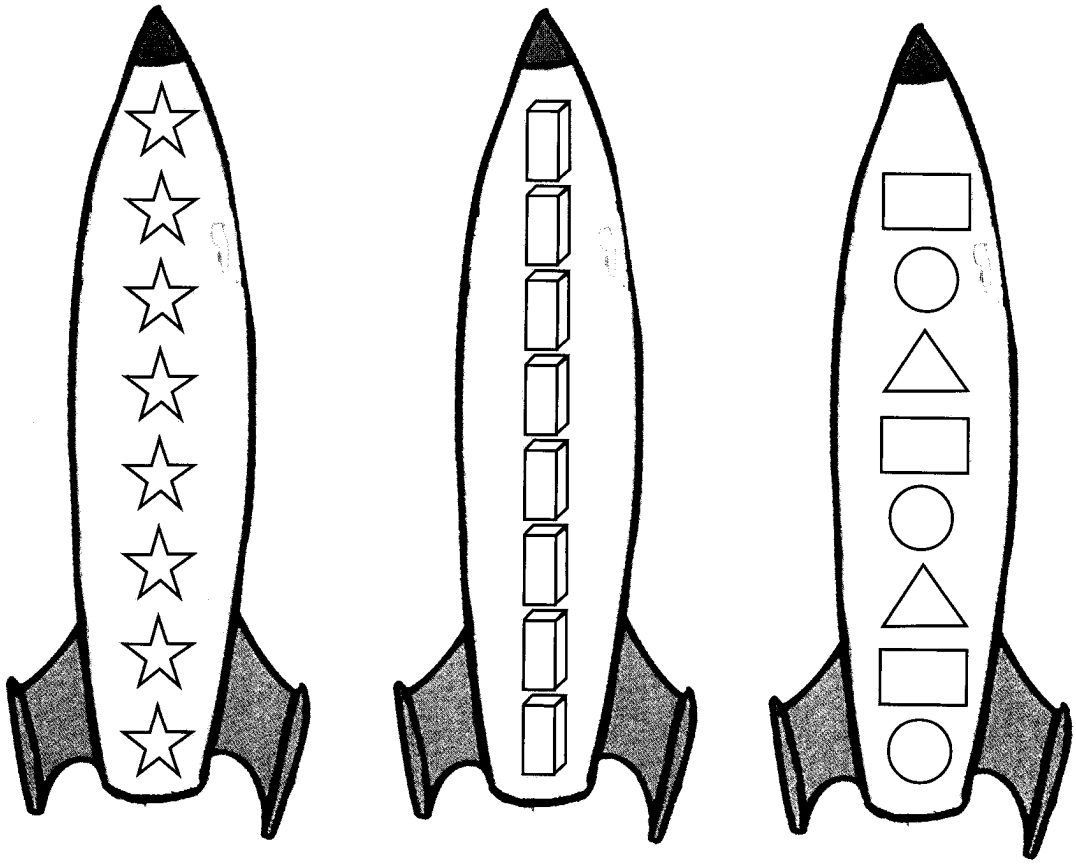
1. Complete the patterns below.

(a) According to shape and color.



(b) According to shape and size.

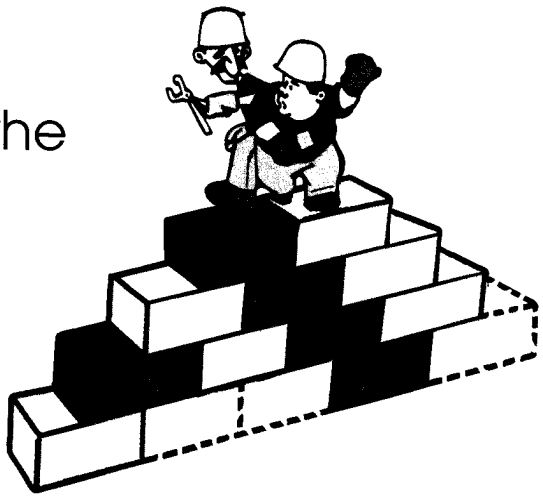
2. Use 3 colors to make color patterns.



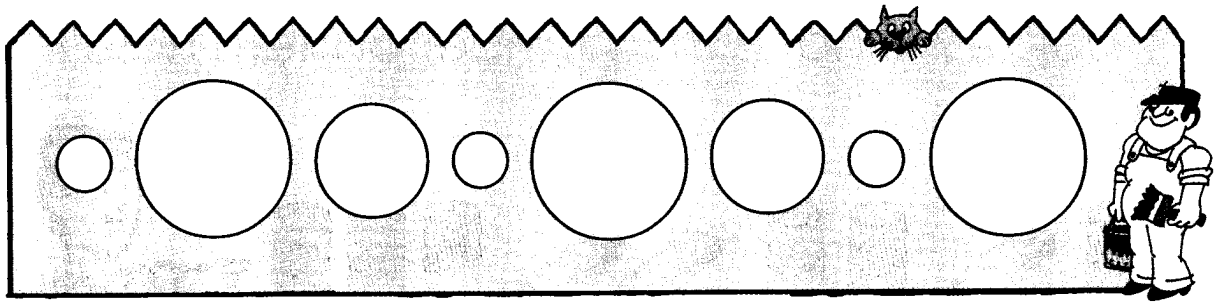
Practice 8A

1. Draw the missing shape to complete the pattern. ○□○□○□○ ____

2. Color the missing bricks to complete the pattern on the wall.

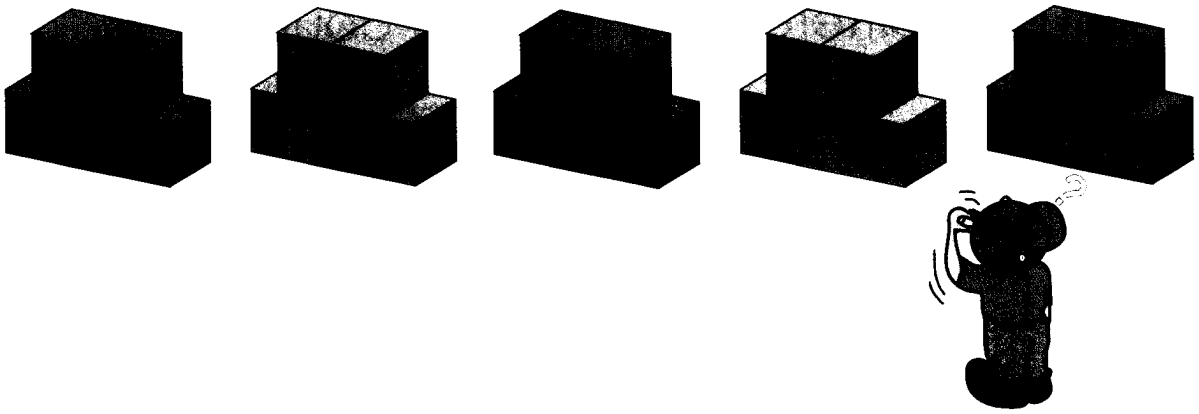


3. Color the circles to complete the pattern.

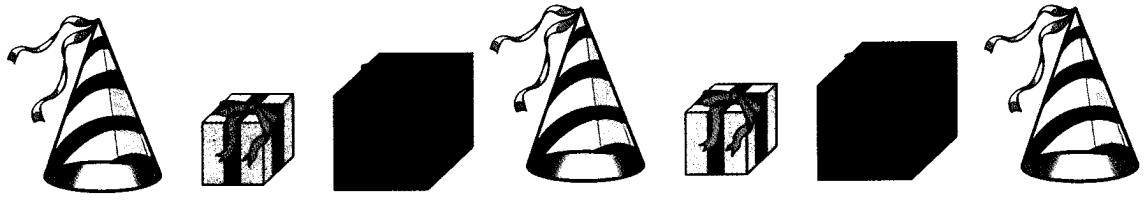


Let's Learn

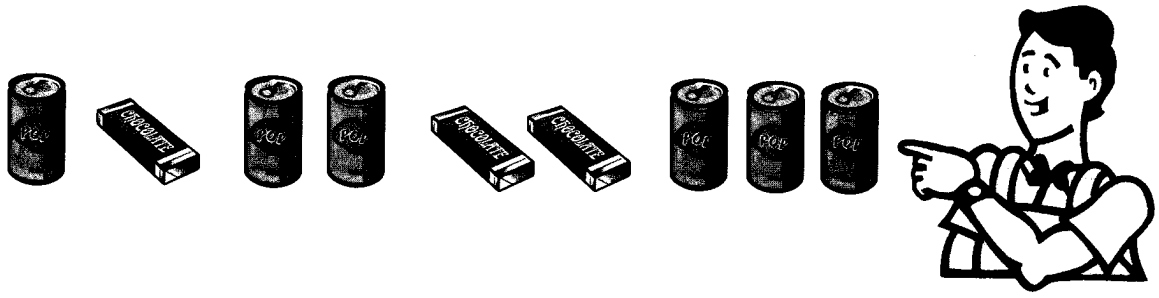
This is a pattern according to color.



This a pattern according to shape and size.

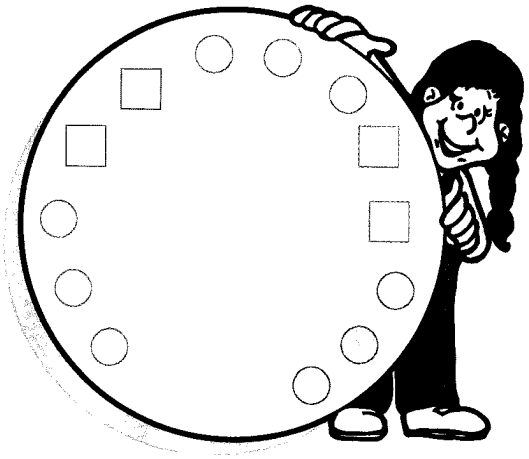


This is a pattern according to shape and color. What comes next in the pattern below? What is the number pattern here?



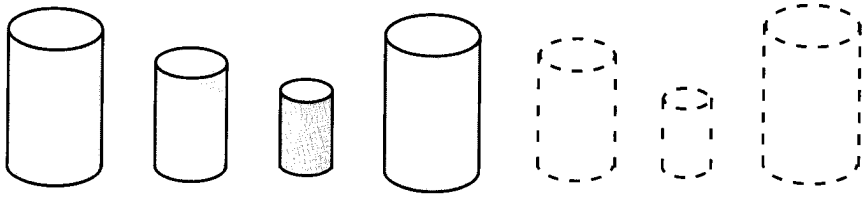
In-Class Activity

1. Make patterns with 10 counters:
(a) according to shape and color;
(b) using different numbers of counters.



Let's Try

1. Color the objects to complete the pattern.



2. Complete the rainbow using the shapes given.

Practice 8B

1. Complete the patterns below.

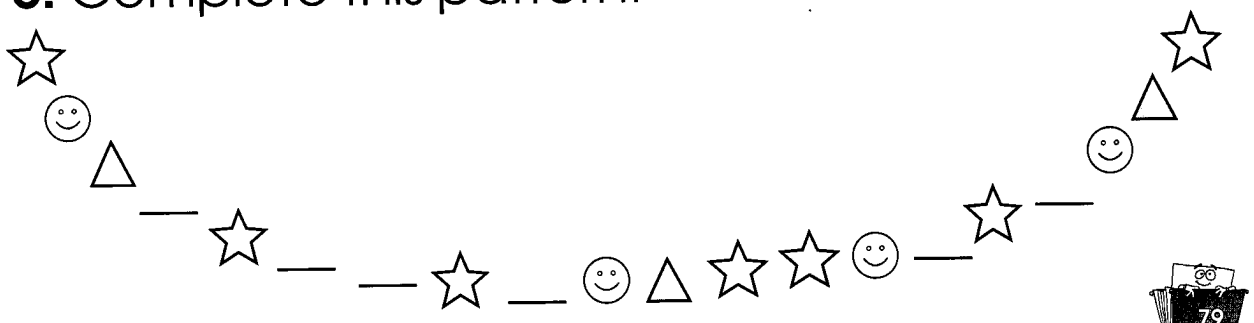
(a) △△△○○○▭▭ ____

(b) ■ □ ▲ ■ □ ▲ ■ ____ ▲

2. 

Color the correct shape from the box to complete the above pattern.

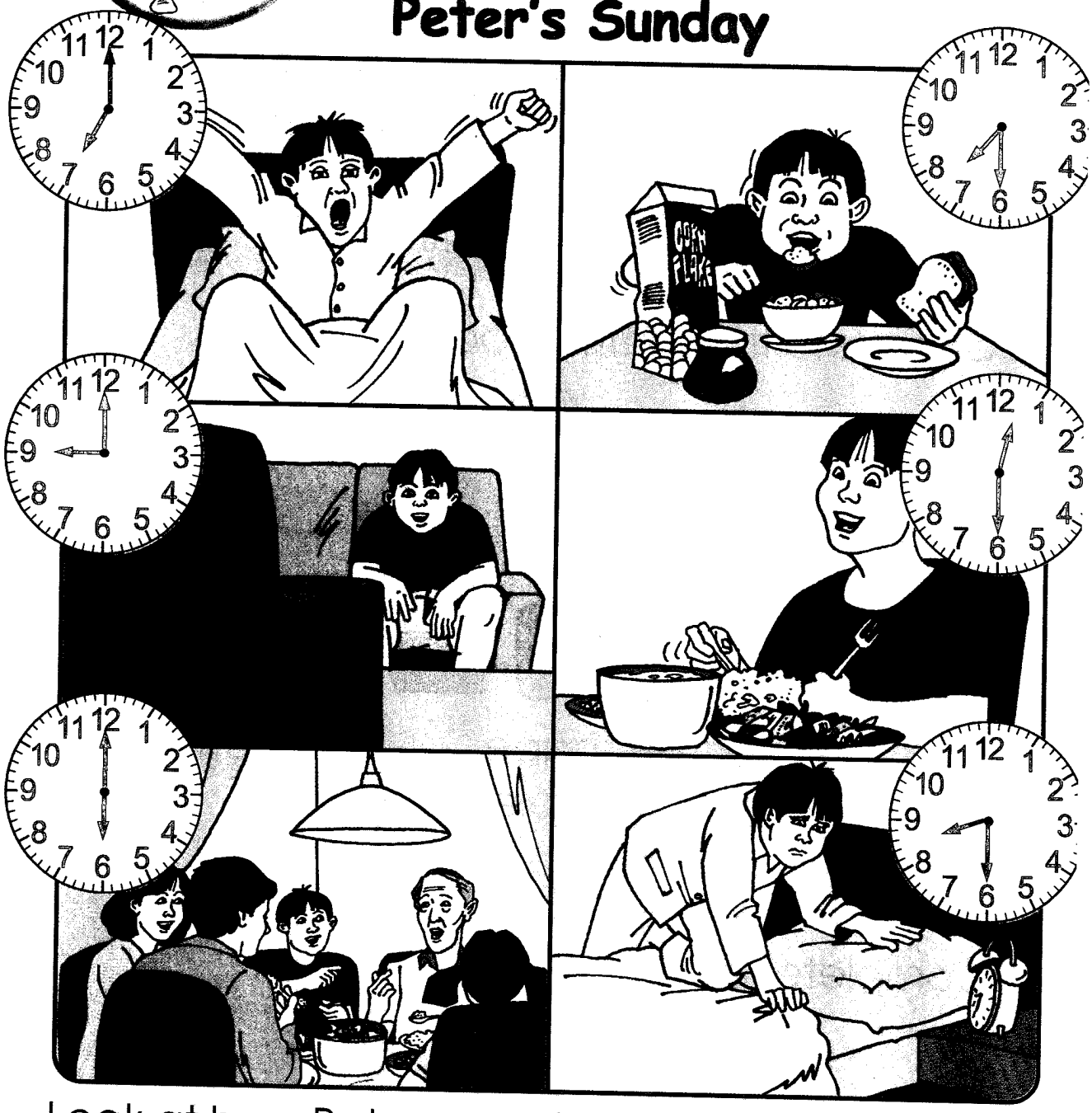
3. Complete this pattern.



CHAPTER 9

TIME

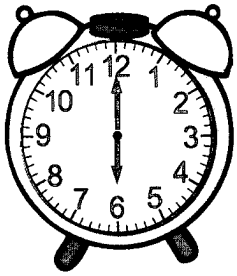
Peter's Sunday



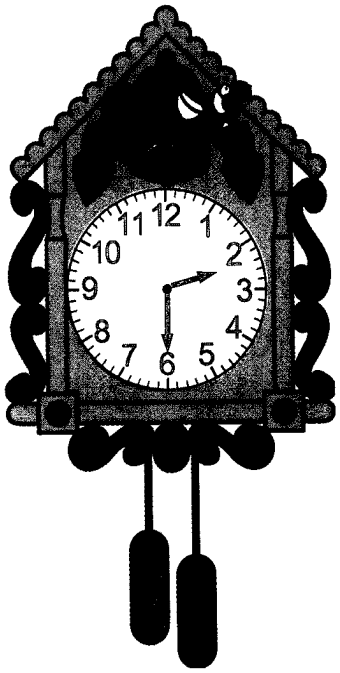
Look at how Peter spends his Sunday.
How do you plan your Sunday?

We use clocks and watches to tell the time.

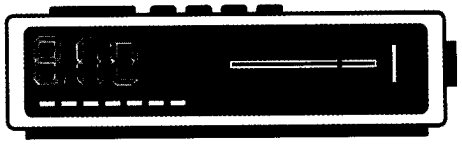
Here are some clocks.



6 o'clock in the morning

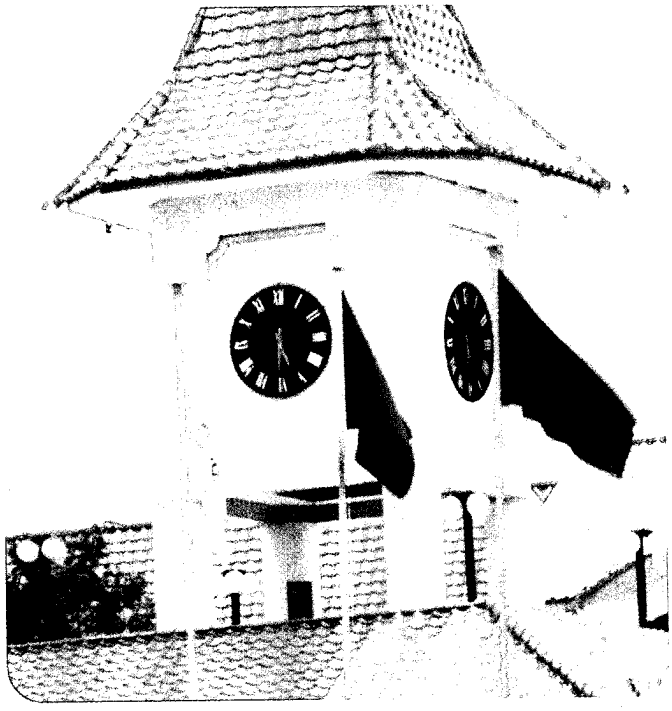


Half past 2 in the afternoon



8 o'clock at night

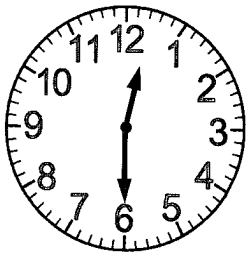
10 o'clock at night



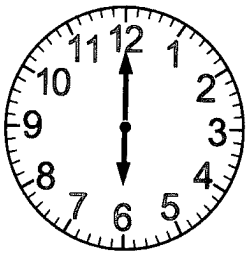
Half past 5 in the evening

Let's Learn

Telling time

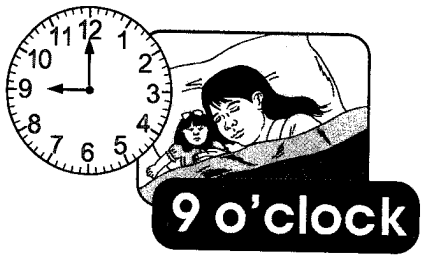


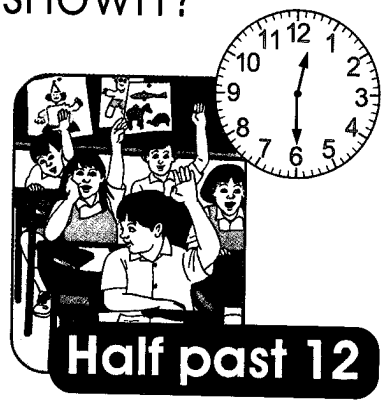
What time in the afternoon is Mary in class?
The time is half past 12.

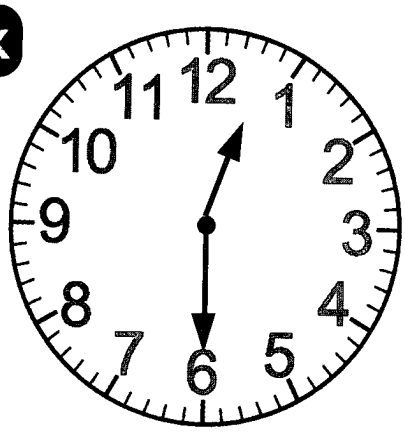


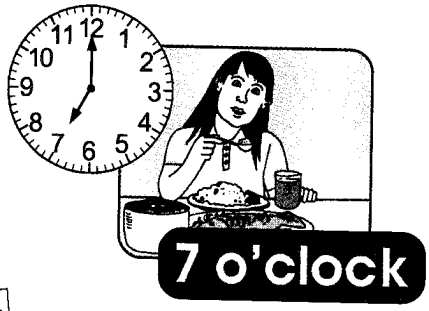
What time in the evening does Mary leave school for home?
The time is 6 o'clock.

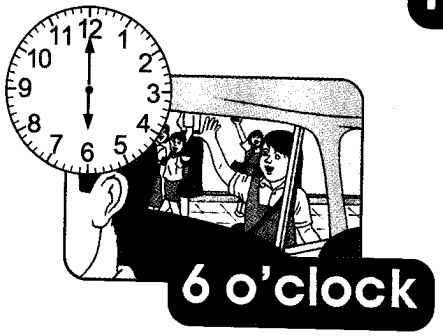
How does Mary spend her day?
What does she do at the times shown?



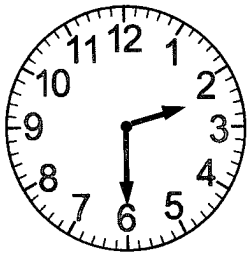


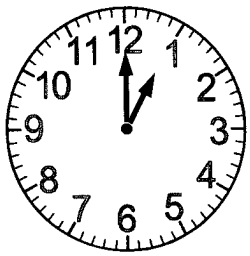






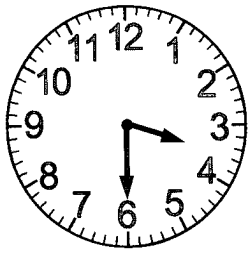
Look at the 2 hands of the clock.
The **hour** hand is shorter.
The **minute** hand is longer.





When the hour hand is at 1 and the minute hand is at 12, we say the time is 1 o'clock.

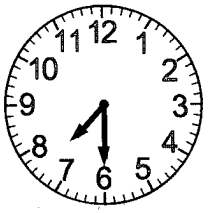
When the hour hand is between 3 and 4, and the minute hand is at 6, we say the time is half past 3.



Let's Try

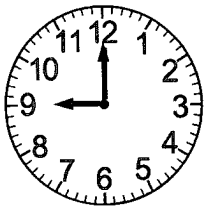
Tell the correct time.

1. Father starts work at this time in the morning.



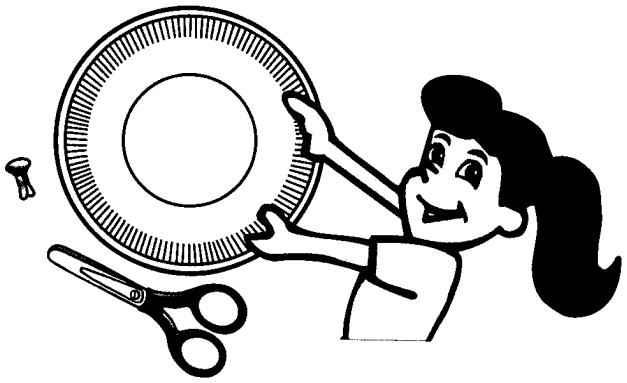
☐ past ☐

2. Tom has to go to bed at this time at night.



☐ o'clock

In-Class Activity



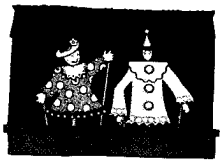
Things you will need:

* A paper plate
* A pair of scissors
* A paper fastener

Write the numbers of a clock on the paper plate. Cut out two paper strips to make the clock hands.
Join the hands together at the centre of the clock. Tell your class about your favorite time of the day.

Practice 9A

1. Match the correct time to each show at the Fun Fair.

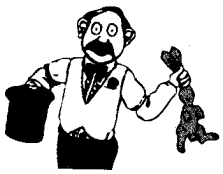


Puppet show

half past 11

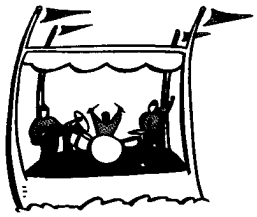
Fireworks

7 o'clock



Magic show

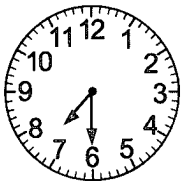
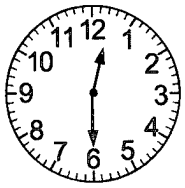
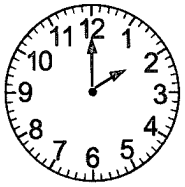
half past 4

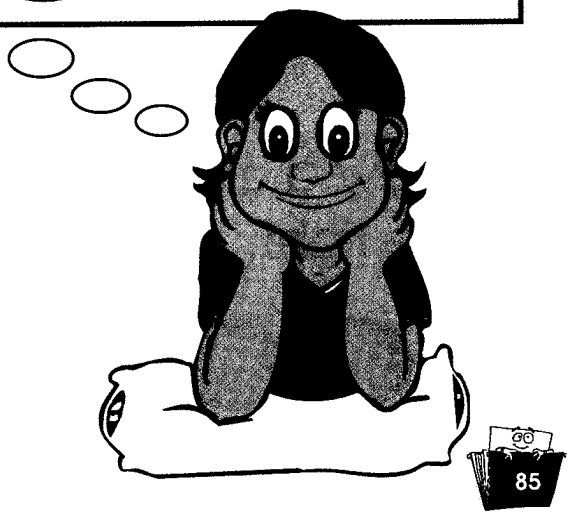


Music show

2 o'clock

2. The chart below shows how Siti will spend her time next Saturday. Write the correct time for each of her activities.

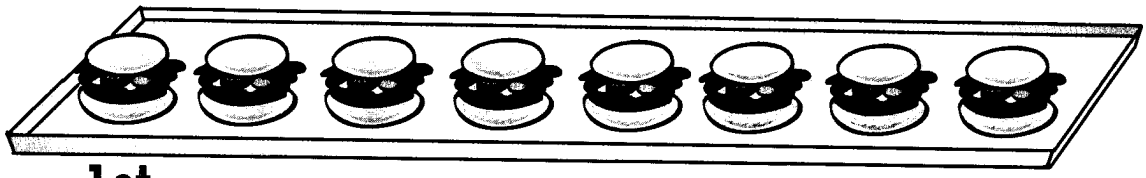
Things To Do	Time
Go to the market with Mother.	
Go swimming at the beach.	
Have a picnic lunch.	
Play games with family members.	



REVISION 2

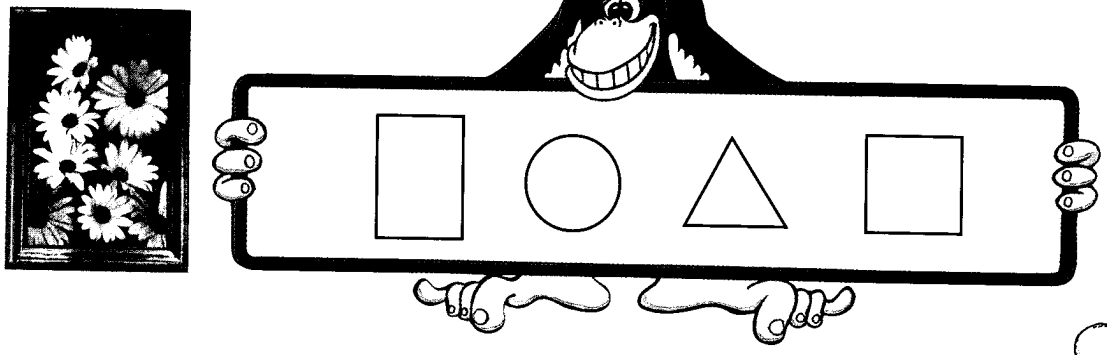
Exercise 1

1. Cross out the sixth hamburger and circle the second one.

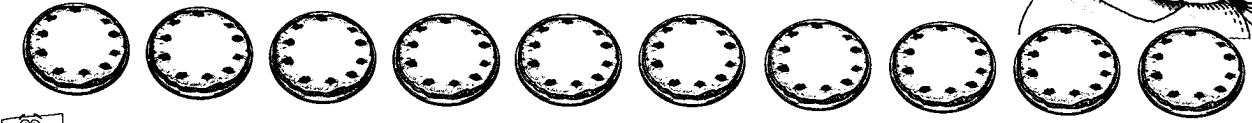


1st

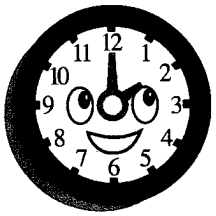
2. Color the shape that matches the picture.

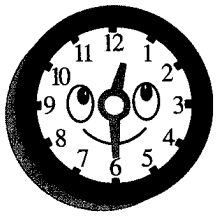


3. Draw a cherry on the 10th pie from the right.



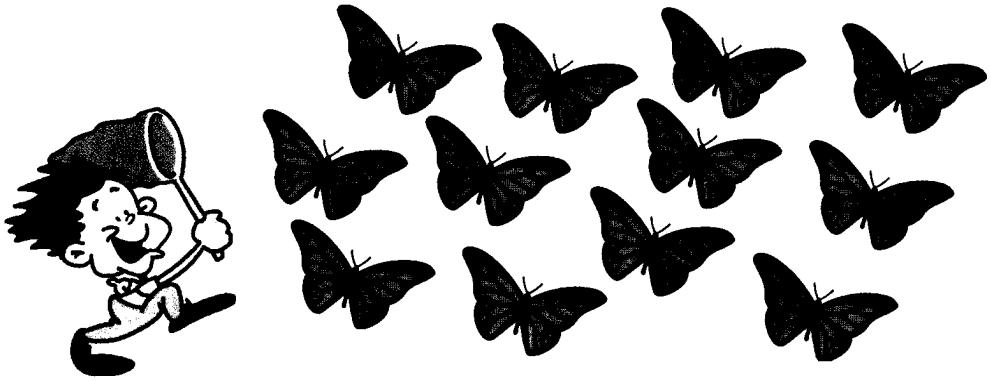
4. Match the clocks to the correct time.





- Half past 12
- 2 o'clock
- Half past 5

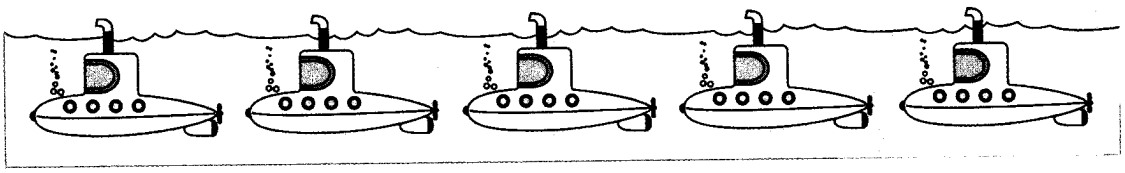
5. Count and write the number in words.



There are ☐ butterflies in the picture.

Exercise 2

6. Fill in the boxes with the correct answers.



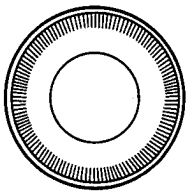
sixth eighth

7. Look at these objects and fill in the blanks.

A

B

C



D

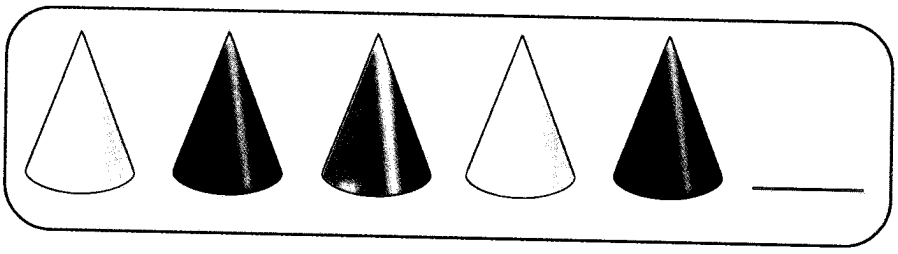
(a) Objects ☐ and ☐ have the same shape.

(b) What is the shape of object A? _____

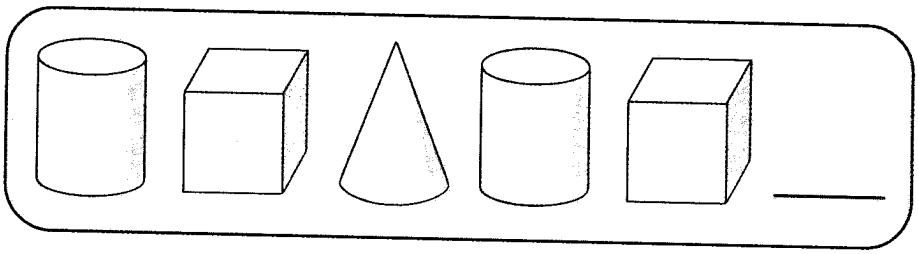
(c) What is the shape of object C? _____

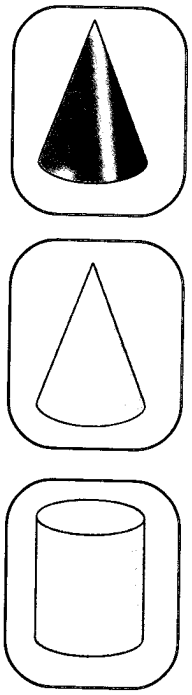
8. Complete these patterns by matching them to the correct shape.

(a)



(b)

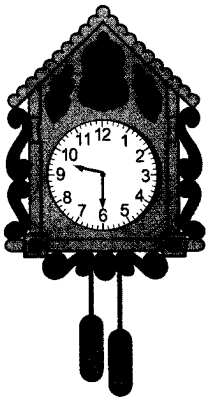




9. Write the correct time.

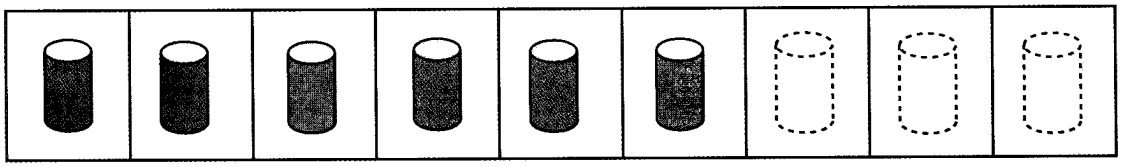
(a) 

_____

(b) 

_____

10. Color the shapes in dotted lines to complete the pattern below.



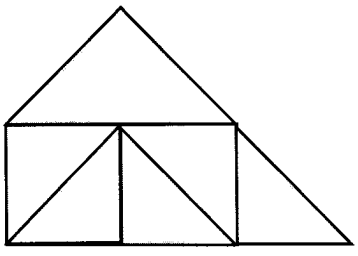
11. Fill in the blanks.

(a) 12 and 5 make ☐.

(b) 15 – 10 = ☐

Exercise 3

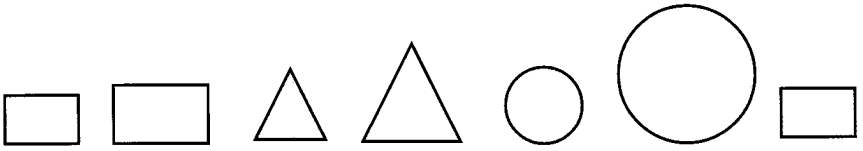
12.



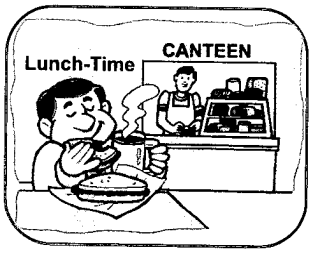
(a) How many triangles can you find? ☐

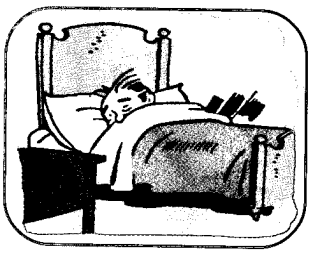
(b) How many squares are there? ☐

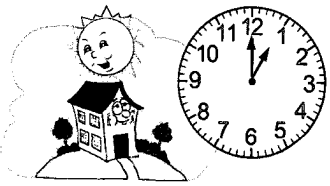
13. Draw the shape that comes next.

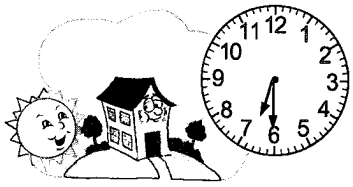


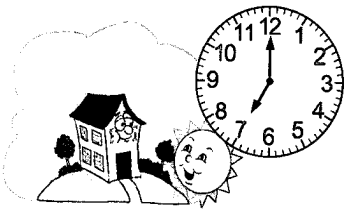
14. Match each picture to the correct time.



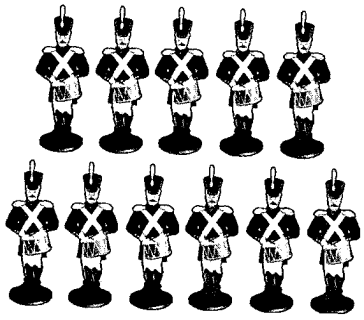


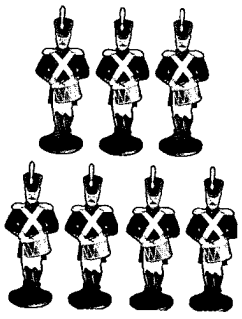






15. Make a ten and add.





10 + ☐ = ☐

16. Devi has 8 sweets and Minghua has 14 sweets. Who has fewer sweets? How many fewer?