

DUAL LANGUAGE PROGRAMME

# MATHEMATICS

## YEAR 1

TEXTBOOK

PART 2

**Writers**

Chan Yook Lean  
Wan Yusof bin Wan Ngah  
Gobi a/l Krishnan



**Editors**

Ainol Rafezah binti Alias  
Mohamad Arshad bin Sulaiman  
Nurul Shaheza binti Zamri



**Illustrator**

Wong Chi Ming



**Graphic Designers**

Najmi bin Mat Sarit  
Mohd Khairin bin Abd. Malek  
Aini binti Abd. Hamid



**Translator**

Norehan binti Shaharoun



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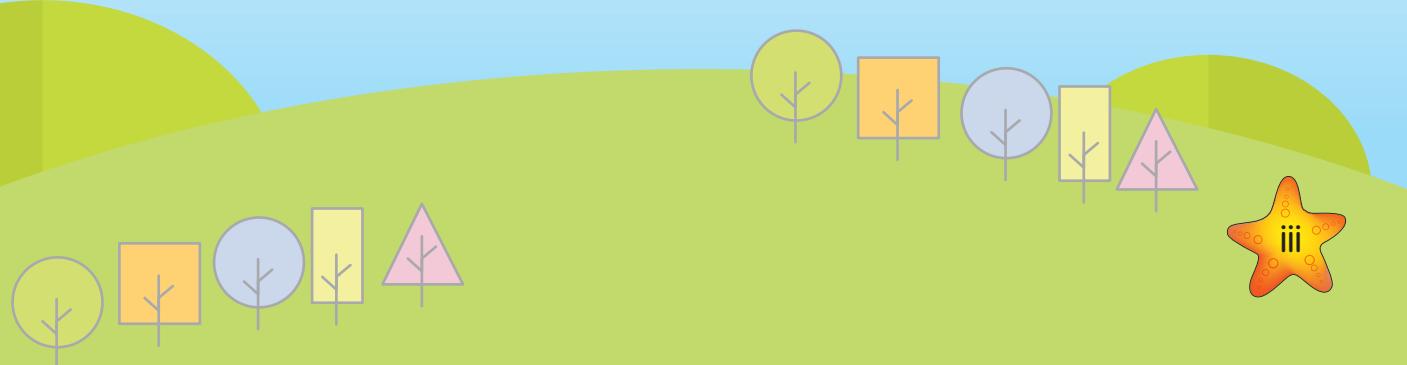
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- RECOGNISE TIME OF THE DAY  
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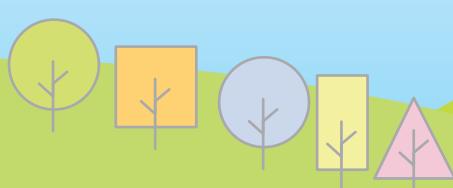
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## 3

## FRACTIONS

Ai Lin, mummy has cut this waffle.



Two equal parts.

I want half.

3.I.I



- Guide the pupils to talk about objects in the picture that show two equal parts.
- Discuss daily life situations which involve fractions.





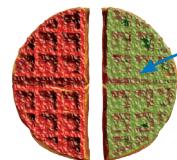
# RECOGNISE FRACTIONS

## One over two and one over four

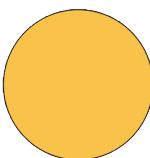
I What is one over two?



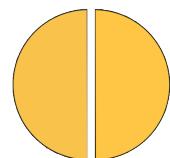
Half  
strawberry.  
Half kaya.



Half



One  
whole



Half

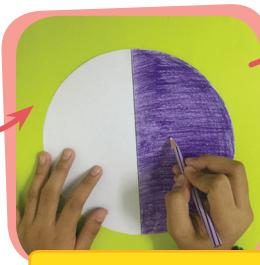
I out of 2 equal parts  
is one over two.



Fold  
a paper



Draw a line  
in the middle



Colour one  
part

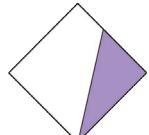
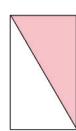
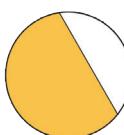


Write the  
fraction

Let's make one over two.



Which is  
one over two?  
Discuss.



3.1.1



- Explain that fraction is a part of a whole object through simulation. Every part must be of equal size.
- Conduct activities of colouring or shading one out of two parts of different shapes.
- Tell the pupils that one over two is also called half.

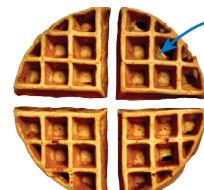
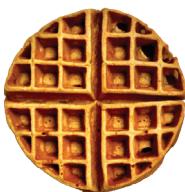


2

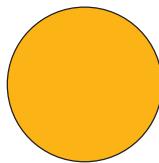
## What is one over four?



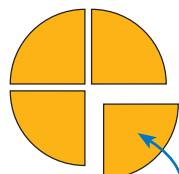
I out of 4 equal parts.



Quarter



One



One over four



Fold a paper



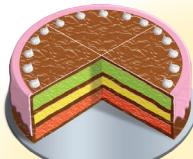
Draw lines



Colour one part



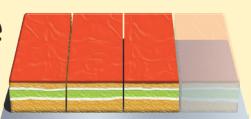
Write the fraction



Chocolate cake



Fruit cake



Layered cake

Adi eats one over four of a cake.  
Which cake is it?  
Discuss.



3.1.1



AB pages 1 - 3

- Conduct activities to understand one over two and one over four using fraction kits or fraction cards. Show to the pupils that each quarter when combined will form one whole (original shape).
- Surf <http://www.kidsnumbers.com/fractions.php>

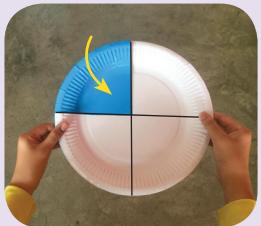


## Two over four and three over four

Each part is equal.



1 out of  
4 parts

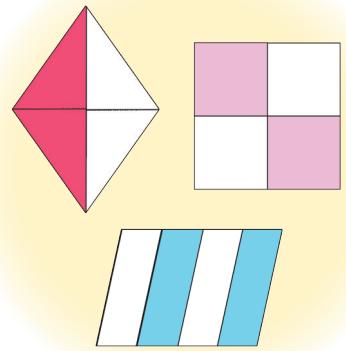
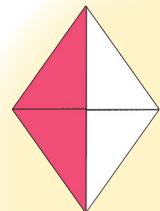


One over four

2 out of  
4 parts



Two over four

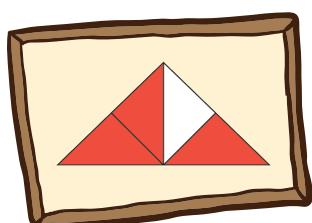


3 out of  
4 parts



Three over four

Three over four  
is also called  
three quarters.



Is the red-shaded part  
three over four? Discuss.



3.1.1



- Guide the pupils to understand the concepts of two over four and three over four through activities such as fraction kits, using concrete objects and paper folding.
- Compare two over four and one over two.
- Use a variety of shapes for pupils to identify fraction values.

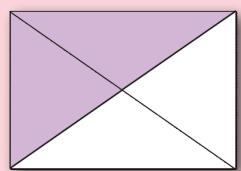
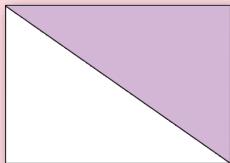
AB pages 4 - 5



# SHARPEN YOUR MIND

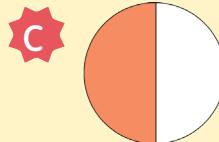
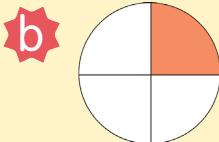
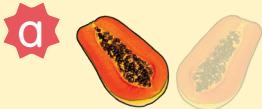


Are the shaded parts are of the same size? Explain.

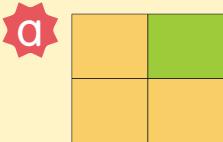


## SELF-TEST

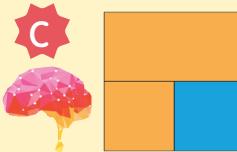
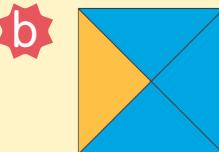
1 Which is one over two? Why?



2 Which is one over four?



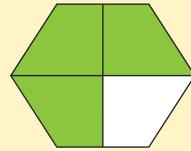
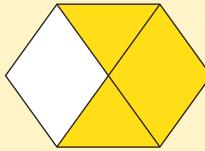
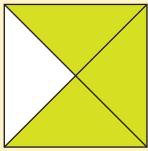
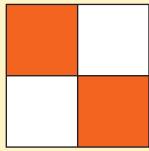
3 Name the fraction of the blue-shaded part.



4 Identify a diagram that shows:

a two over four.

b three over four.



3.1.1



- Provide more exercises to elicit the pupils' ideas such as questions 3 and 4.
- Provide more questions in the form of worksheets or question cards.





## MY PROJECT

### Fraction cookies

**Participants** 4 to 6 in a group.

**Materials** Dough, mould, saucer, ruler, decorative materials.

#### Method

- 1 Knead the dough.



- 2 Press and level out the dough.



- 3 Press the mould onto the dough.



- 4 Cut the cookie into two equal parts.



- 5 Decorate the cookie according to the fraction.



- 6 Label the fractions.



One over  
two



Two over  
four



One over  
four



Three over  
four

3.1.1



- Prepare enough suitable materials for activity. The dough can be replaced by plasticine.
- Guide the pupils to divide the cookies into equal parts.



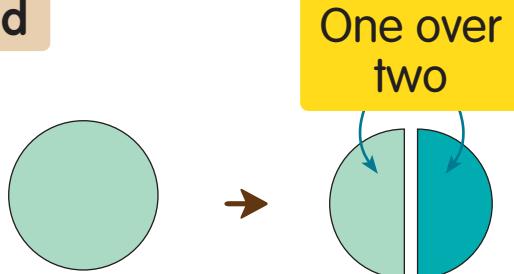


## SOLVE THE PROBLEMS

- 1 Suri cuts a cake into two equal parts.  
What is the fraction for each part?



### Method



Each part of the cake is **one over two**.

2

Mummy cuts this pizza.  
Four equal parts.  
One part is for Azim.



What is the fraction for  
Azim's pizza?

### Method



The fraction for Azim's pizza is **one over four**.

3.2.1

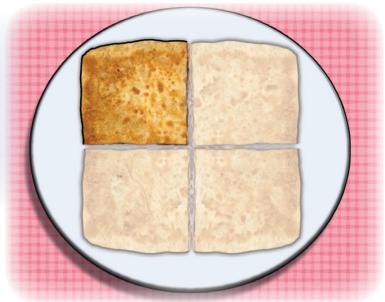


- Show other problem solving strategies such as simulation.
- Surf [http://www.homeschoolmath.net/teaching/f/understanding\\_fractions.php](http://www.homeschoolmath.net/teaching/f/understanding_fractions.php)
- Guide the pupils to check answers.

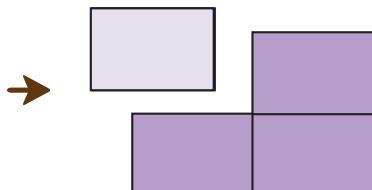
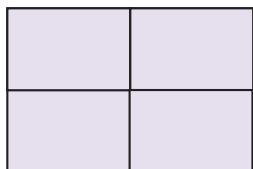




**3** I eat three equal parts of a *martabak*.  
What fraction of the *martabak* do I eat?



### Method

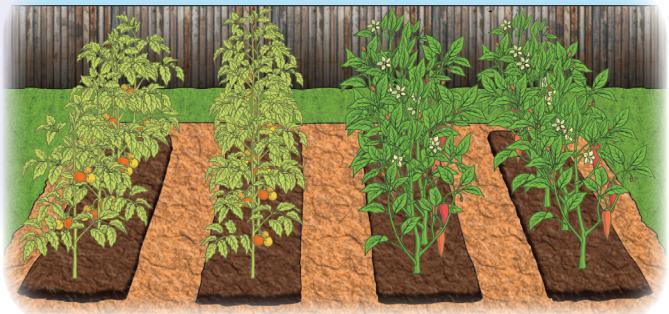


Three over four

I eat three over four of the *martabak*.



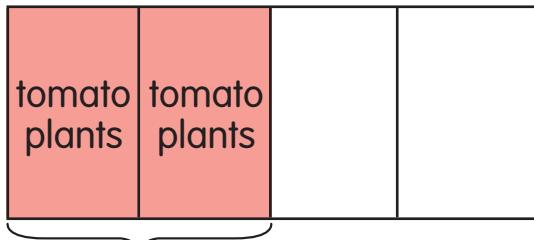
**4** Two out of four plots  
are planted with  
tomato plants. What  
is the fraction?



### Method



I draw  
a diagram.



Two over four

The fraction is two over four.

3.2.1



- Use geoboard to form one over four, one over two, two over four and three over four from one single shape.
- Encourage the pupils to check their answers.



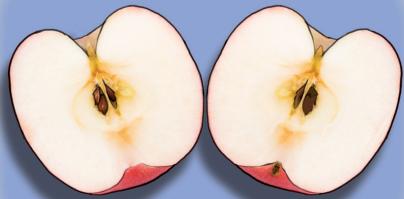
AB pages 6 - 8



## SELF-TEST

Solve these.

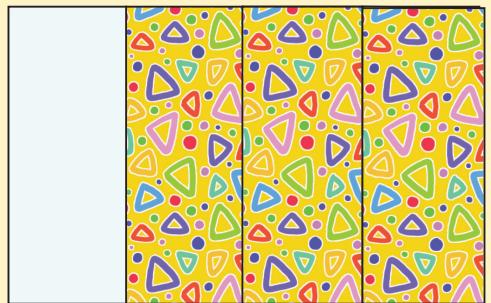
- a What is the fraction for each part of this apple?



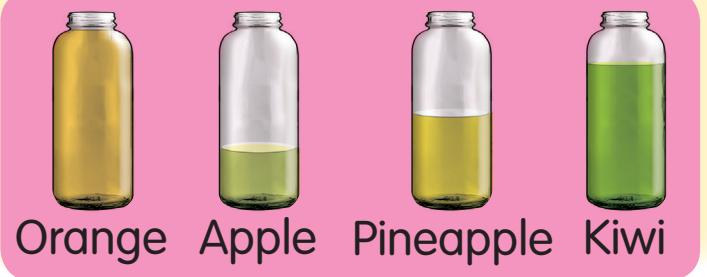
- b Ani eats a quarter of an omelette. What is the fraction?



- c Lim divides a piece of paper into four equal parts. He draws 3 parts with patterns. State the fraction with pattern.



- d Johan drinks half a bottle of juice. Which juice is it?



3.2.1



- Provide more questions in the form of worksheets or question cards.
- Surf [http://www.sheppardsoftware.com/mathgames/earlymath/fractions\\_shoot.htm](http://www.sheppardsoftware.com/mathgames/earlymath/fractions_shoot.htm)

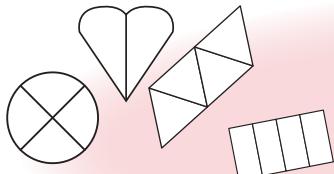




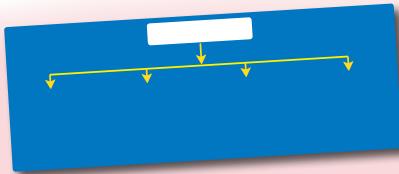
## Fun with Fractions

**Participants** 4 pupils in a group.

### Materials



Shape cards



Fraction chart



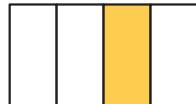
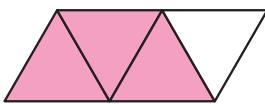
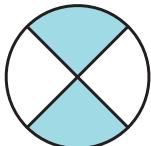
Coloured paper  
Glue



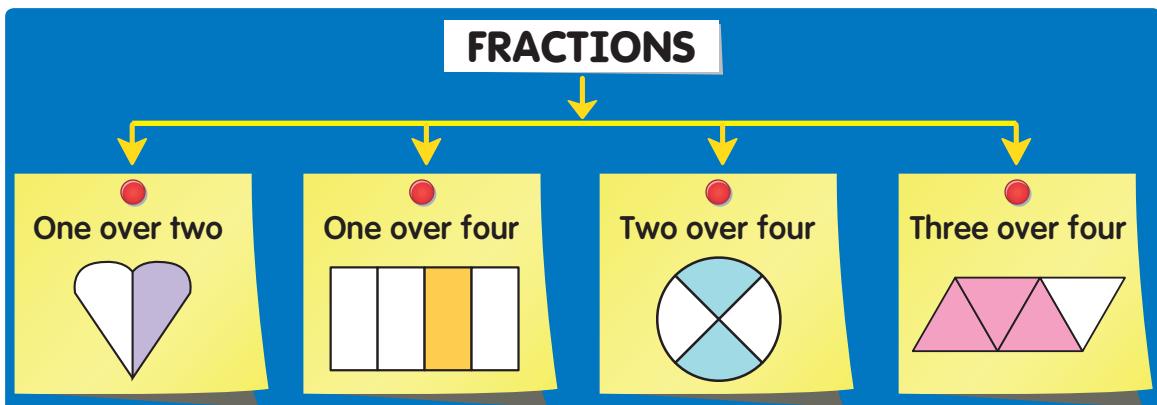
Coloured pencils

### Method

- Colour one, two or three parts.



- Paste the shapes on a fraction chart.



- Display your work. Talk about it.

3.I.I  
3.2.I



- Prepare materials and shapes that have been divided into equal parts for each group.
- Guide the pupils to carry out activities to reinforce the concept of fractions.

## 4

## MONEY



4.1.1  
4.2.1



- Ask the pupils to talk about the pictures. Expose them to the history of money such as the barter system and the old currencies.
- Instil moral values of spending wisely and caring for the environment.
- Surf <https://www.youtube.com/watch?v=J7hN0t2Y0J8>





# RECOGNISE MONEY

**I**

Look at the coins. Talk about it.

Gold in colour.

There are patterns, teacher.

Malaysian coins



Different sizes.

Silver coloured

Number

Round-shaped

Hibiscus

Gold coloured



**2**



Look at these coins. What are the similarities? What are the differences?



4.1.1



- Discuss similarities and differences among the four types of coins.
- Explain that money is an exchange tool in buying and selling activities.
- Surf [http://www.bnm.gov.my/files/publication/ar/bm/2011/cp02\\_001\\_rencana.pdf](http://www.bnm.gov.my/files/publication/ar/bm/2011/cp02_001_rencana.pdf) to explore more information on the characteristics of money.

12

3

## Hibiscus



## Number

## Bank Negara logo



## Wau bulan



Talk about these RM5 and RM10 notes. What are the differences?



## SELF-TEST

Talk about the money.

a



b



c



4.1.1



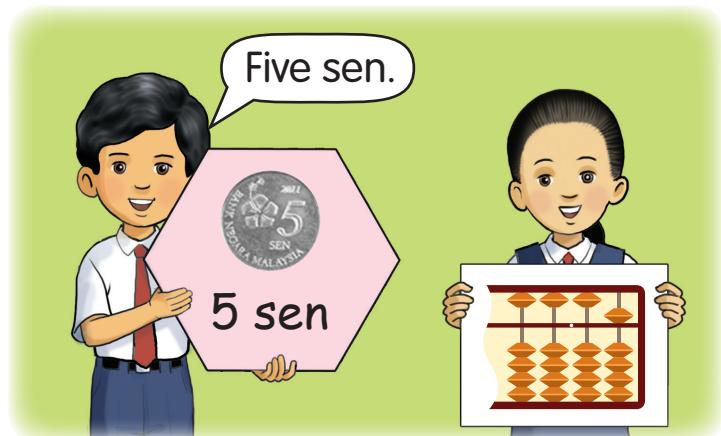
- Explain that the number on the money shows the value of the money.
- Encourage the pupils to talk about money.
- Provide more questions in the form of worksheets or question cards.
- Surf [http://www.bnm.gov.my/microsites/2011/banknotes/00\\_overview.htm](http://www.bnm.gov.my/microsites/2011/banknotes/00_overview.htm)

AB pages 11 - 14



# VALUE OF MONEY

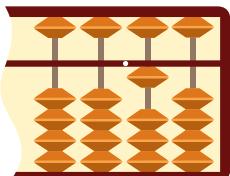
1



Ten sen

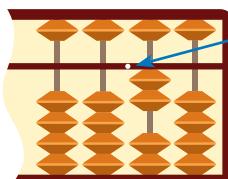


10 sen



Twenty sen

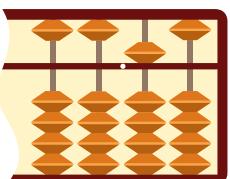
20 sen



This dot separates the ringgit and the sen.

Fifty sen

50 sen



2



Ten sen

10 sen



Thirty sen

30 sen

Count on  
20 sen, 30 sen.



65 sen

4.1.2



- Carry out simulation activities on combination of values of money.
- Encourage the pupils to show combination of values of money on the abacus.
- Emphasise that the value of a combination of money is the total amount of the values of money.



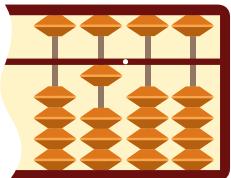
AB page 15

**3**



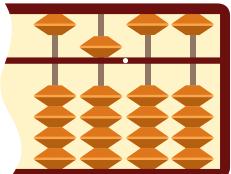
One ringgit

RMI

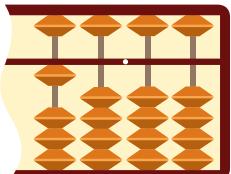


Five ringgit

RM10



RM10



**4**



Six ringgit

RM6



Two ringgit

RM2



## SELF-TEST

Say the value of money.

**a**



**b**



**c**



4.1.2



- Carry out group activities where pupils use play money and abacus to show the amount of money and write the value of money said aloud by teacher.
- Provide more questions in the form of worksheets or question cards.

AB page 16



# CONVERSION OF MONEY

1



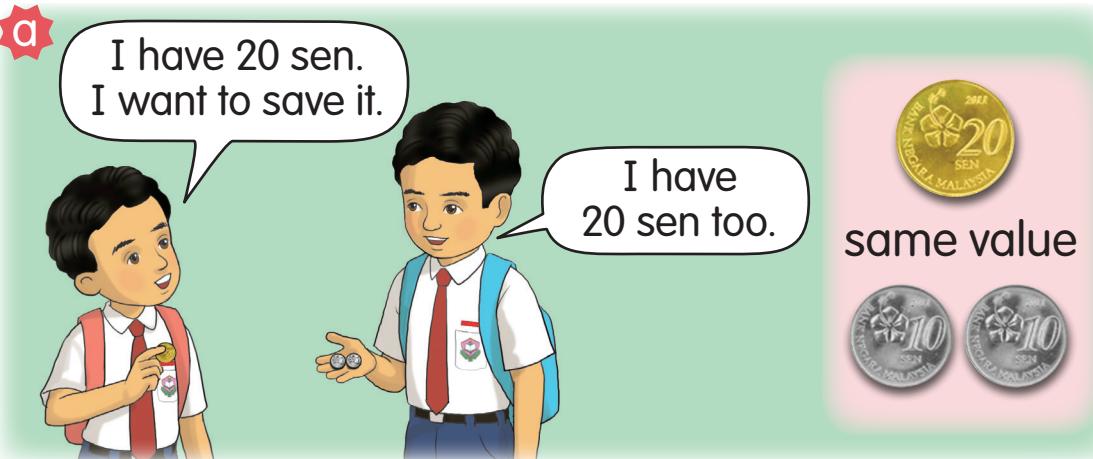
This machine does not accept 5 sen.  
This money needs to be converted.



same value



2



same value

**b**same  
value

same value



4.1.3



- Guide the pupils to convert money using different combinations of coins.



3



same value



same value



same value



same value

State other combinations  
to convert 50 sen.



4



RMI

There are other  
conversions of RMI.  
Talk about it.

same value

100 sen



same value

100 sen



same value

100 sen



4.1.3



- Explain that conversion of money is to give and receive money of the same value.
- Carry out quizzes on finding the conversion value of coins.
- Carry out simulation activities to enhance pupils' understanding.



same value



same value



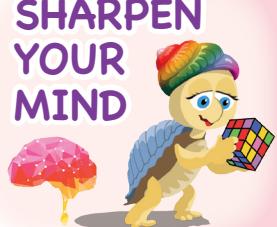
same value



Say other combinations for RM5.



## SHARPEN YOUR MIND



I have 8 coins.  
The value is RM1.

I have RM1 too.  
But I have 9 coins.

What is the value of each coin they have?

4.1.3



- Guide the pupils carry out simulation activities using play money to enhance their understanding of combination of money.
- Surf <https://www.mathsisfun.com/money/make-amount.html>



6

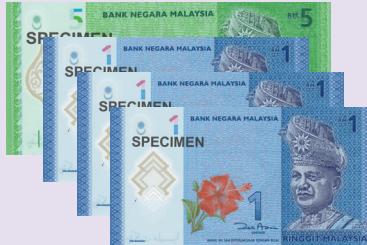
a



b



same value



Say other combinations that have  
the same value as



## SELF-TEST

Complete the conversion of money.

a



has the same value as



b



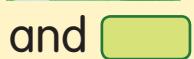
has the same value as



c



has the same value as



and



4.1.3



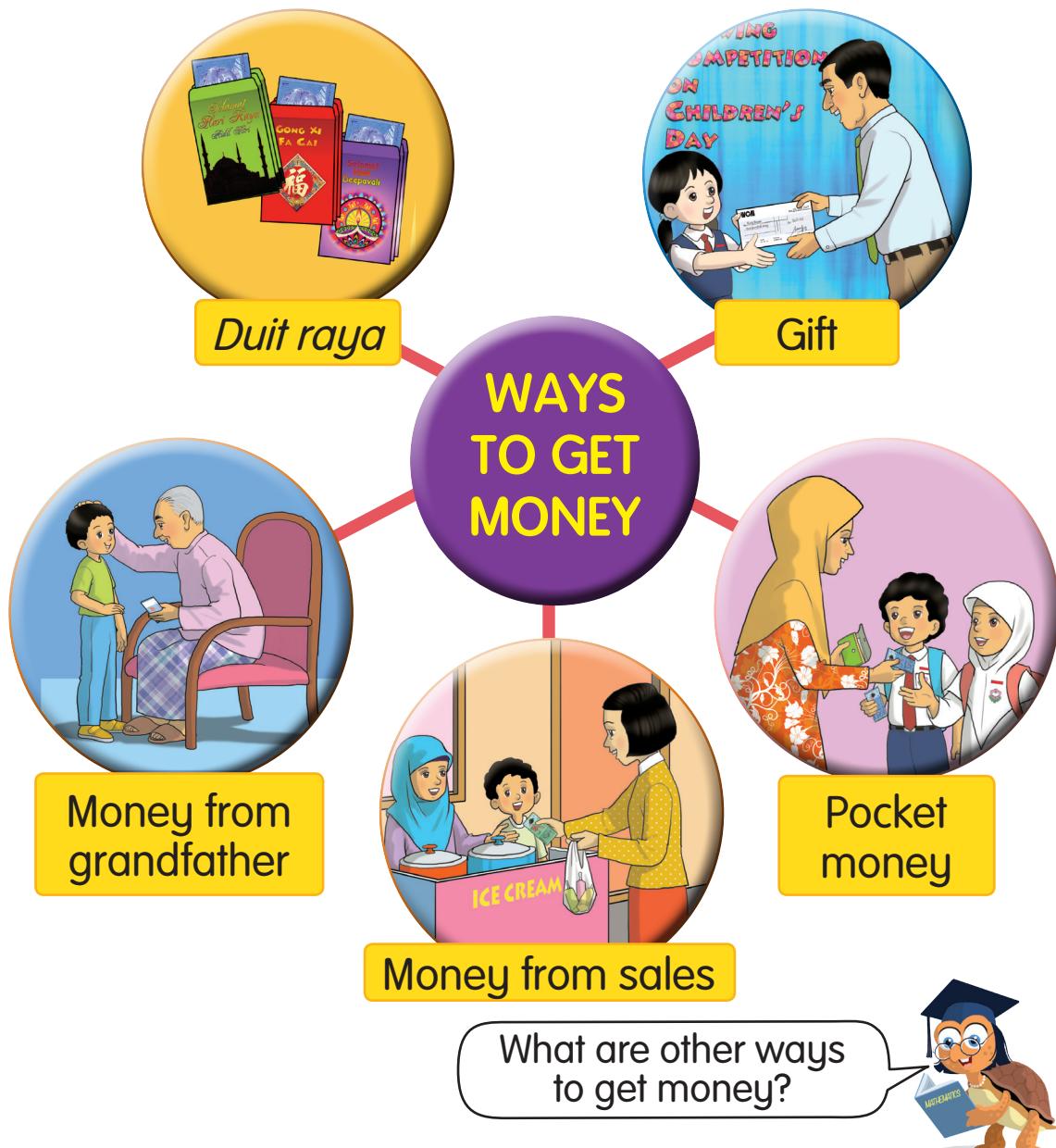
- Discuss the conversion value of 40 sen, 70 sen, RM3, RM8 and others.
- Provide more questions in the form of worksheets or question cards.
- Surf <http://www.mathsisfun.com/money/money-master.html>

AB pages 17 - 19





# GET AND RECORD MONEY



4.2.1  
4.2.2



- Explain that source of money is money that you get from a job or from someone, and discuss about the source of pupils' money.
- Explain that recording the flow of money is important for reference.
- Discuss ways of saving money safely and managing it wisely.



2



Li Ming draws a table.

Date	Money source	Save	Spend
10/3/2017	From granny	RM10	RM5
16/3/2017	Pocket money	90 sen	Bread
24/4/2017	Sell tins	RM5	RM1



Can Li Ming buy a wallet  
if he spends freely?

4.2.1  
4.2.2



- Discuss ways to get money.
- Apply moral values of fulfilling needs when spending instead of wants as shown in the ledger of pocket money book.
- Explain that spending freely is spending excessively.

AB pages 20 - 21





## MY PROJECT

Let's be  
thrifty

### Materials

Manila cards,  
catalogues,  
scissors, glue.

### Steps

- 1 Think of something you wish to buy in a week.
- 2 List out pocket money and expenses on a manila card.
- 3 Paste pictures of things you wish to buy.
- 4 Display at the Mathematics Corner.

Date	Pocket Money	Save	Spend
22.5.2017	RM3	RM2	RM1
23.5.2017	90 sen	20 sen	70 sen
24.5.2017	RM5	RM1	RM4
25.5.2017	80 sen	30 sen	50 sen
26.5.2017	RM2	RM1	RM1

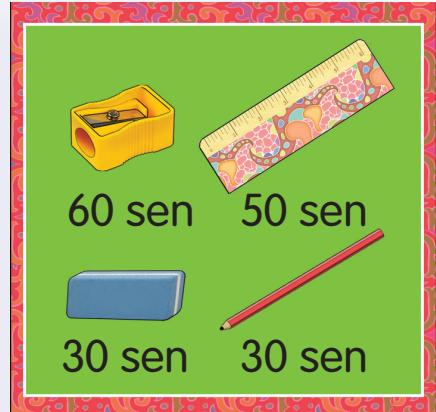
4.2.1  
4.2.2



- Guide the pupils to record savings and spending using MS Word software.
- Ask the pupils to bring a catalogue of goods.
- Activity can be done individually or in groups.



# SOLVE THE PROBLEMS



Kim buys and .

$$50 \text{ sen} + 30 \text{ sen} = \boxed{}$$

### Method 1

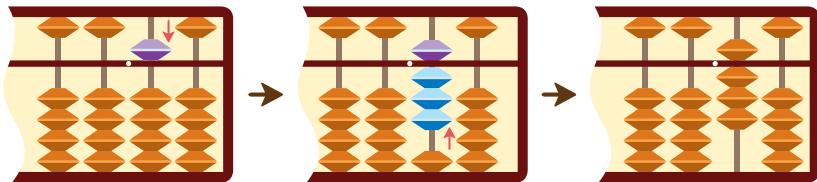
$$\begin{array}{r} 50 \text{ sen} \\ + 30 \text{ sen} \\ \hline 80 \text{ sen} \end{array}$$

### Method 2

Count on.  
50 sen, 70 sen, 80 sen.



### Method 3



$$50 \text{ sen} + 30 \text{ sen} = \boxed{80 \text{ sen}}$$

The total cost is **80 sen**.

4.3.1



- Do buying and selling activities in class. Provide more questions such as adding the costs of pencil and sharpener.
- Guide the pupils to add the values of coins through simulation using play money.
- Train the pupils to calculate using abacus.

AB page 22

 2

Arisa has 55 sen. Fei Fei has 25 sen more than Arisa. How much money does Fei Fei have?

$$55 \text{ sen} + 25 \text{ sen} = \boxed{\phantom{00}}$$

**Method 1**

$$\begin{array}{r} | \\ 55 \text{ sen} \\ + 25 \text{ sen} \\ \hline 80 \text{ sen} \end{array}$$

**Method 2**



$$55 \text{ sen} + 25 \text{ sen} = \boxed{80 \text{ sen}}$$

Fei Fei has **80 sen**.

 3

Ramu donates RM5. Kamal donates RM5 too. Calculate the total amount of money.



$$\text{RM5} + \text{RM5} = \boxed{\phantom{00}}$$

**Method 1**

$$\begin{array}{r} | \\ \text{RM } 5 \\ + \text{RM } 5 \\ \hline \text{RM } 10 \end{array}$$

**Method 2**



$$\text{RM5} + \text{RM5} = \boxed{\text{RM10}}$$

The total amount of money is **RM10**.

4.3.1



- Provide a variety of questions to enhance pupils' understanding.
- Encourage the pupils to use a variety of strategies in solving problems.





RM3

90 sen

70 sen

RM5

RM6



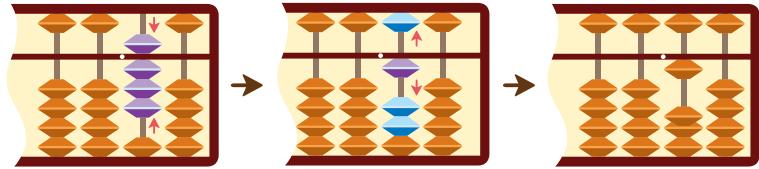
a Fara has 80 sen. She buys  . Find the amount left.

$$80 \text{ sen} - 70 \text{ sen} = \boxed{\phantom{00}}$$

### Method 1

$$\begin{array}{r} 80 \text{ sen} \\ - 70 \text{ sen} \\ \hline 10 \text{ sen} \end{array}$$

### Method 2



$$80 \text{ sen} - 70 \text{ sen} = \boxed{10 \text{ sen}}$$

The amount left is 10 sen.

b Find the difference in price between  and .

$$RM6 - RM3 = \boxed{\phantom{00}}$$

### Method 1

Count back



### Method 2

$$\begin{array}{r} RM6 \\ - RM3 \\ \hline RM3 \end{array}$$

$$RM6 - RM3 = \boxed{RM3}$$

The difference in price is RM3.

4.3.1



- Provide more questions on subtraction based on pictures such as to find what is left, the difference and how much less to enhance the subtracting skill.
- Surf <http://www.teach-nology.com/worksheets/math/money/mon1.html>



**5** Saiful has RM10. He donates RM4 to the poor.  
How much money is left?

$$\text{RM}10 - \text{RM}4 = \boxed{\text{ }}$$

**Method 1**

$$\begin{array}{r} \text{RM } 10 \\ - \text{RM } 4 \\ \hline \text{RM } 6 \end{array}$$



**Method 2**



$$\text{RM}10 - \text{RM}4 = \boxed{\text{RM6}}$$

The money left is **RM6**.



**6** Ying has RM10. Wafi has RM2 less than Ying.  
Calculate Wafi's money.

$$\text{RM}10 - \text{RM}2 = \boxed{\text{ }}$$

**Method**

$$\begin{array}{r} \text{RM } 10 \\ - \text{RM } 2 \\ \hline \text{RM } 8 \end{array}$$

Count back to check the answer.

$$\text{RM}10 - \text{RM}2 = \boxed{\text{RM8}}$$

Wafi has **RM8**.



4.3.1

TEACHER'S  
NOTES

- Guide the pupils to subtract values of coins and notes using a variety of strategies.
- Instil moral values such as honesty and being thrifty.



AB pages 24 - 25

7

Adib has 80 sen in his money box. He puts in 20 sen more. What is the total amount of Adib's money?

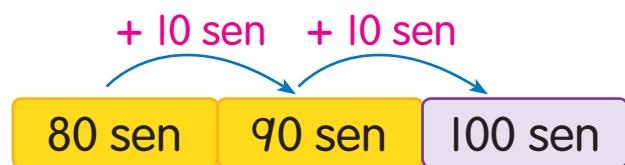


$$80 \text{ sen} + 20 \text{ sen} = \boxed{\phantom{00}}$$

### Method 1

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

### Method 2



$$80 \text{ sen} + 20 \text{ sen} = \boxed{100 \text{ sen}}$$

The total amount is **100 sen**.



Aini has 25 sen. Esha has 65 sen. How much more must Aini save to have the same amount?

$$25 \text{ sen} + \boxed{\phantom{00}} = 65 \text{ sen}$$

### Method

$$\begin{array}{r} 25 \text{ sen} \\ + 40 \text{ sen} \\ \hline 65 \text{ sen} \end{array}$$

Discuss ways to check the answer.

$$25 \text{ sen} + \boxed{40 \text{ sen}} = 65 \text{ sen}$$

Aini needs to save **40 sen** more.



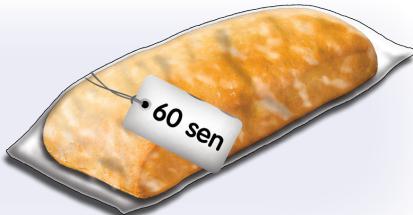
4.3.1



- Do simulation activities using play money to add or subtract money.



q) Najwa buys a bun. She pays RM1.  
How many 20 sen, 10 sen or 5 sen  
will she receive?



### Method 1

$$\text{RM } 1 - 60 \text{ sen} =$$



Bun is 60 sen. Pay RM1.

How much is the change?



### Method 2

$$\begin{array}{r} 100 \text{ sen} \\ - 60 \text{ sen} \\ \hline 40 \text{ sen} \end{array}$$

$$\text{RM } 1 - 60 \text{ sen} = \boxed{40 \text{ sen}}$$

Najwa may receive 4 pieces of 10 sen.



Najwa may receive other changes. Discuss.

### SHARPEN YOUR MIND

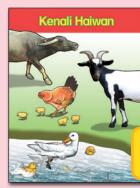


You have  and 4 .

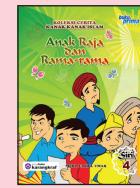
Mummy gives  . Which book would you buy? Why?



**RM8**



**RM9**



**RM10**

4.3.1

TEACHER'S NOTES

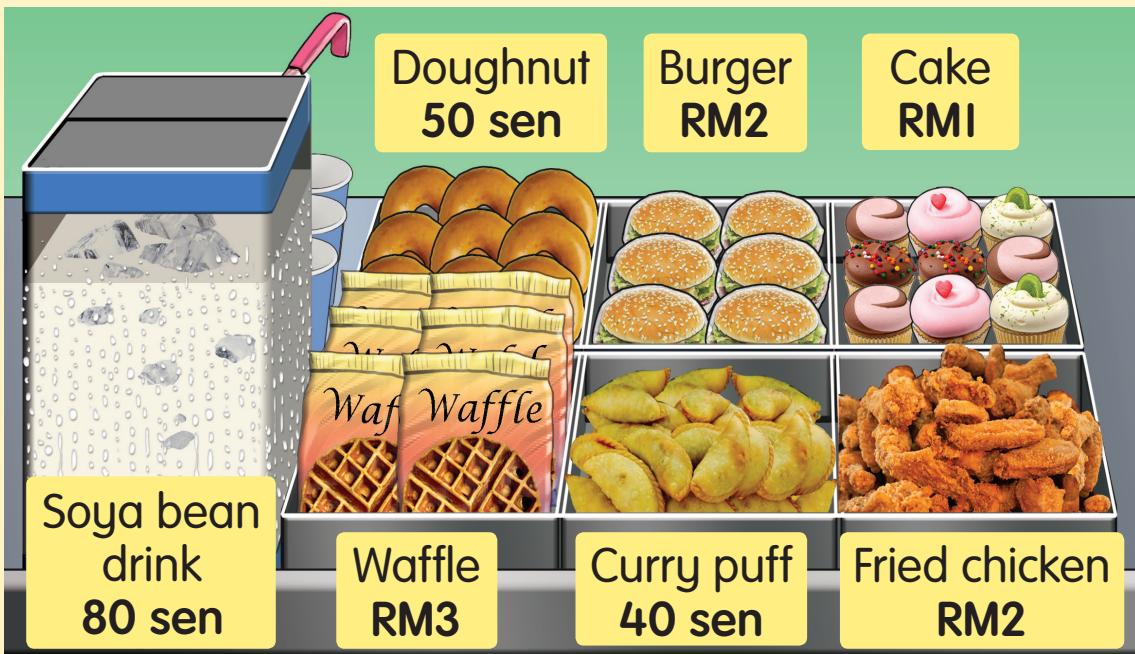
- Explain that a combination of money is several pieces of money that has a value.
- Provide a variety of daily life situations involving subtraction of money such as buying and selling activities, and savings.

AB pages 26 - 28



## SELF-TEST

Solve these.



- What is the total price of one doughnut and one curry puff?
- Find the difference in price between one fried chicken and one cake.
- Sara has RM3. She buys one burger. Calculate Sara's amount of money left.
- Kim has 50 sen. He wants to buy a soya bean drink. How much more money does he need?
- Ramjit pays RM5 for one waffle. How many will he receive?



4.3.1



- Provide a variety of questions to enhance pupils' understanding.
- Provide more questions in the form of worksheets or question cards.
- Surf <http://www.kidsmathgamesonline.com/money/funshopping.html>

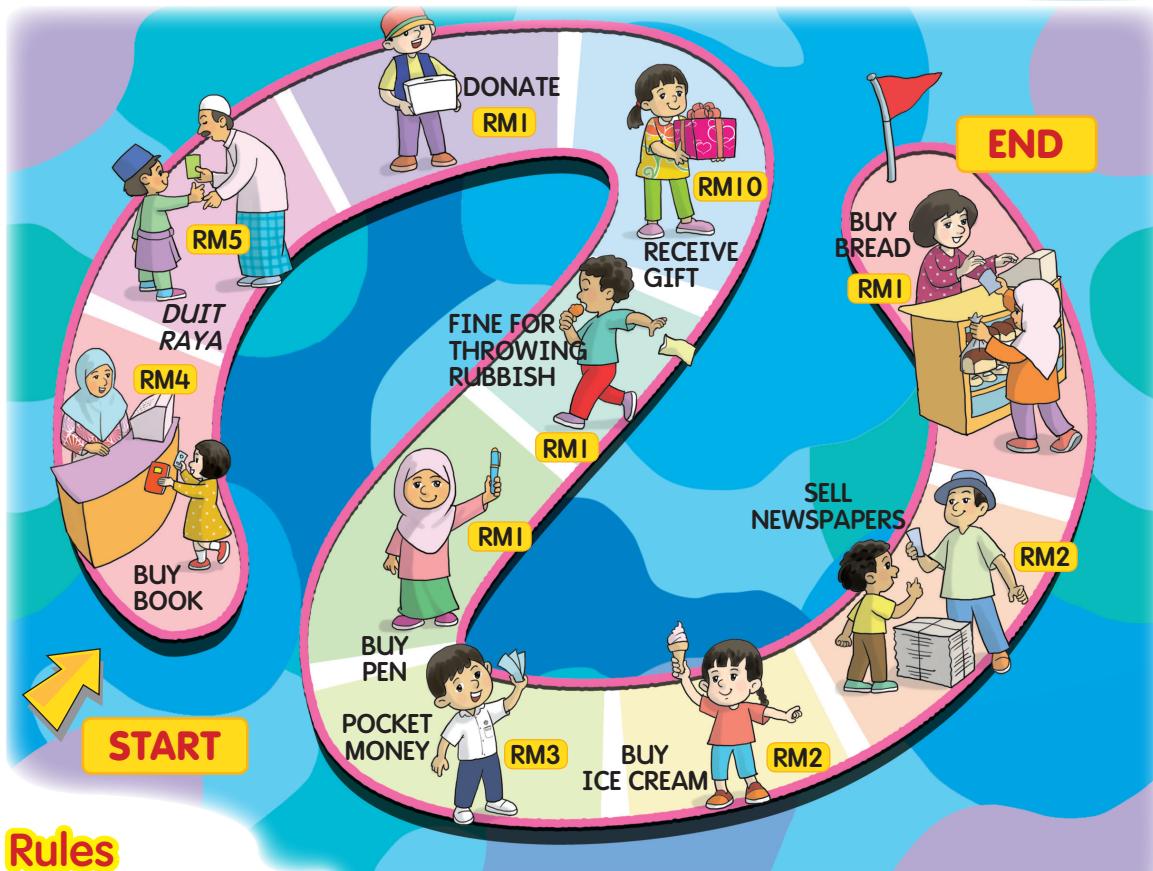




## Let's collect some money!

**Participants** 3 players and 1 cashier.

**Materials** Play money, coins, chips, pencils, papers.



### Rules

- 1 Take RM10.
- 2 Toss a coin. If it is head, move the chip 1 step onward. If it is tail, move the chip 2 steps onward.
- 3 Follow the instructions on the squares.
- 4 Jot down money received or spent.
- 5 Take turns until the game is finished.
- 6 The player with the most amount of money is the winner.

4.2  
4.3



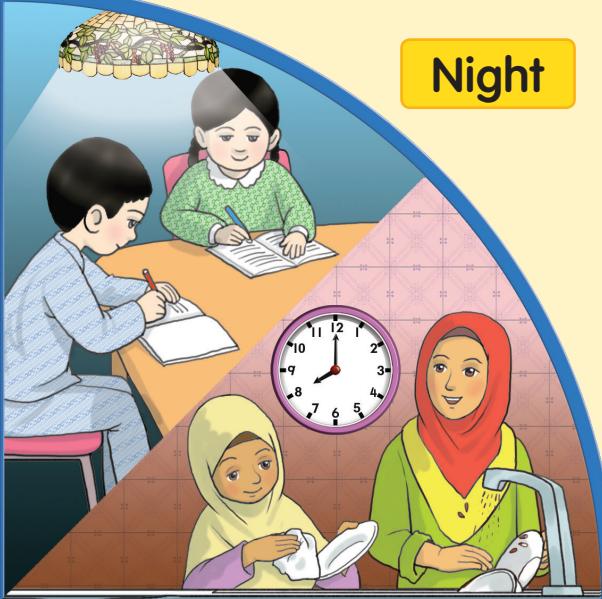
- Ask the pupils to determine their turns. Ask the cashier to give RM10 to each player.
- Carry out quizzes or other games activities according to the pupils' abilities.

# 5 TIME

**Day**



**Night**



5.I.1  
5.I.2



- Ask the pupils to talk about the pictures. Apply Elements Across the Curriculum (EMK) like moral values of appreciating time and the environment.
- Surf <https://nrich.maths.org/6070>



# RECOGNISE TIME OF THE DAY



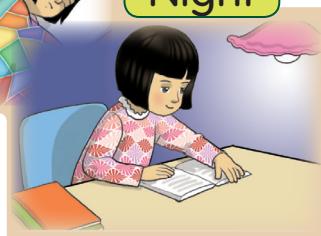
Morning



Afternoon



Night



Evening



Talk about the activities in the picture.



## SELF-TEST



Say the activities and the time of the day.



5.I.1  
5.I.2



- Guide the pupils to talk about their activities which are suitable in the morning, afternoon, evening, night and midnight.
- Guide the pupils to say the time based on activities in the picture cards.
- Instil values of practicing daily activities according to schedule.



AB pages 31 - 33



## RECOGNISE THE CLOCK AND TIME

1



This is a clock face.  
There are numbers from 1 to 12.

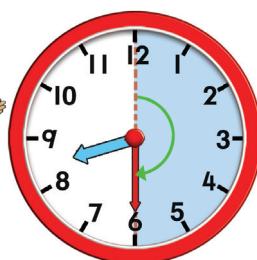


The **short hand** is the **hour hand**.  
The **long hand** is the **minute hand**.

2

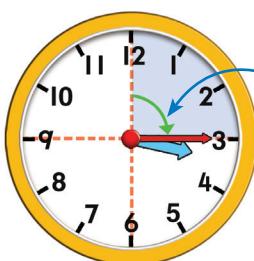


The minute hand moves over half of the clock face.



Half an hour

3



The minute hand moves over one over four of the clock face

One over four of an hour  
is called a quarter of an hour.



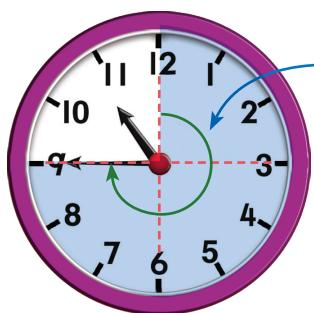
Quarter of an hour

5.2.1  
5.2.2



- Guide the pupils to know the hour hand and the minute hand.
- Relate the concepts of fractions of half, quarter and three quarters to guide the pupils to understand the concept of half an hour, a quarter of an hour and three quarters of an hour.

4



The minute hand moves over three over four of the clock face

Three over four of an hour  
is known as three quarters  
of an hour.



Three quarters of an hour

### SHARPEN YOUR MIND

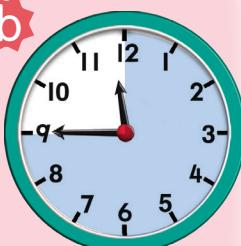


Look at the white-shaded part. What is the time in hours?

a



b



### SELF-TEST

Look at the blue-shaded part. State which is half an hour, a quarter of an hour or three quarters of an hour.

a



b



c



5.2.2



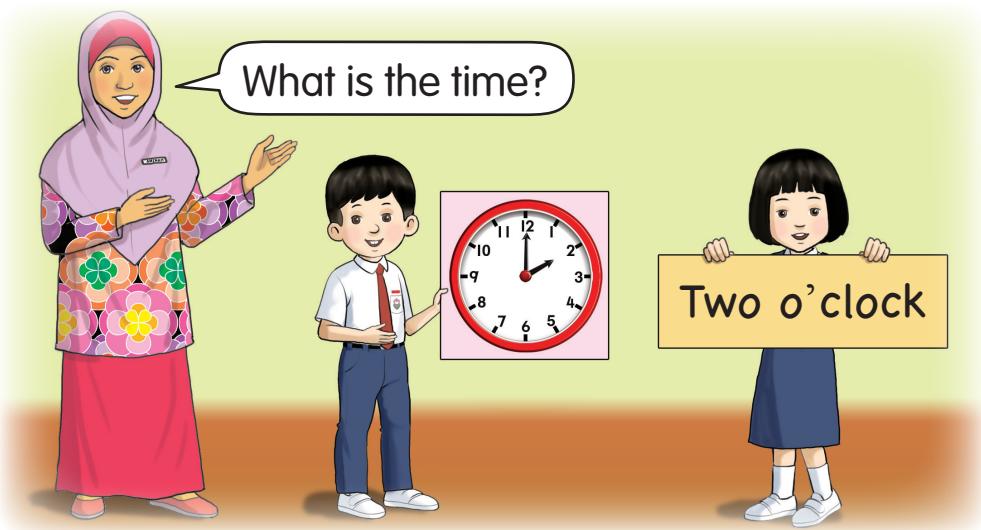
- Use actual clock or clock model in activities to understand half an hour, a quarter of an hour and three quarters of an hour.
- Provide more questions in the form of worksheets or question cards.



AB pages 34 - 35



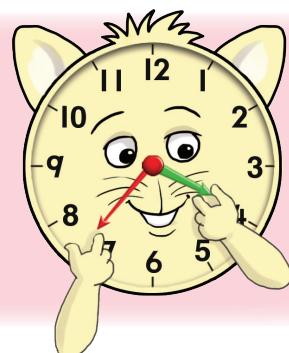
## SAY AND WRITE THE TIME



**SHARPEN  
YOUR  
MIND**



The minute hand and the hour hand are at the same number. What is the time?



5.2.3



- Guide the pupils to say time correctly based on the clock model.
- Carry out simulation activities such as moving the hour hand and minute hand according to the times mentioned.
- Surf [https://www.superteacherworksheets.com/time/time-5\\_TZTNN.pdf](https://www.superteacherworksheets.com/time/time-5_TZTNN.pdf)

**3****a**

The hour hand is between 4 and 5. The minute hand points to 6.

**b**

half past seven

Where is the  
hour hand at  
half past eight?

**4****a****b****c**

Quarter past ten

Quarter past three



### SELF-TEST

Say and write  
the time.

**a****b**

5.2.3



- Guide the pupils to say and write the time in half an hour and a quarter of an hour.
- Use actual clock so that the pupils understand the position of the hour hand and the minute hand.
- Provide more questions in the form of worksheets or question cards.

AB pages 36 - 37



## MY PROJECT

### Time sense

**Participants** 2 pupils in a group.

**Materials** Polystyrene or paper plate, glue, number cut-outs, hour hand, minute hand, thumb tacks.

#### Steps

1 Prepare the materials.



2 Paste numbers 1 to 12 on a plate.



3 Fasten the hour hand and the minute hand.



4 Do question and answer activities with your friends. For example:



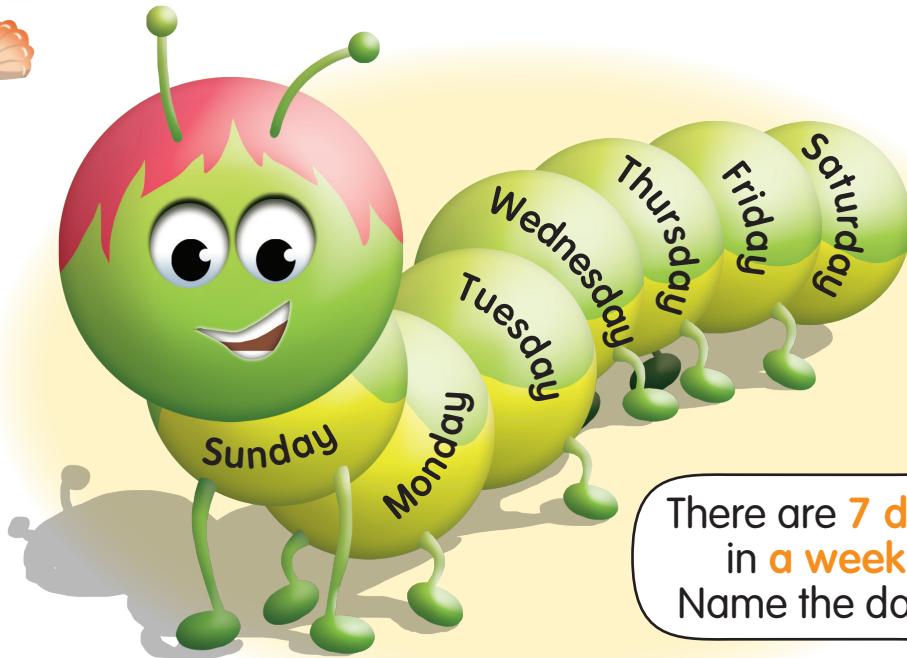
- 5.2.1
- 5.2.2
- 5.2.3



- Guide the pupils to carry out the activity to build a clock during the arts lesson.
- Prepare related question cards.



# RECOGNISE DAYS, WEEKS AND MONTHS



There are **7 days** in a week.  
Name the days.



Today is Friday.

Yesterday was Thursday.

Tomorrow is Saturday.

The day after tomorrow is Sunday.

Tuesday is between Monday and Wednesday.

Today is Monday. What day was yesterday?



## SHARPEN YOUR MIND



One week is from Sunday to Saturday.  
So, Thursday until   is also one week.

5.1.3



- Guide the pupils to say the name of days in a week in sequence using calendar, class timetable or MS PowerPoint.
- Carry out activities to describe events in a week. Instil moral values.
- Surf <https://www.youtube.com/watch?v=HaqXe8rn3cY>



2



There are **12 months** in a year.

The first month is **January**.

Before the month of **May** is **April**.

After the month of **September** is **October**.

Name the months from January to December.



**SHARPEN  
YOUR  
MIND**



I was born  
in March  
2010.



I was born in  
the same year  
but I am older.

In what month was Ai Ling born? Discuss.

5.1.4



- Guide the pupils to say the months in a year in sequence.
- Discuss the months for festivals in Malaysia, Mother's Day, Father's Day and so on.
- Carry out activity to get birth dates of classmates.
- Surf <https://www.youtube.com/watch?v=KScIYZSnIck>

AB pages 38 - 40





## SELF-TEST

Complete the table.



Sunday

Monday

Tuesday



Wednesday

Saturday

Friday

Thursday

Day	Activity
Sunday	Community project
	Revision
	Play draughts
	Play netball
	Recycle campaign
	Go to the library
	Visit orphanage

5.I.3  
5.I.4



- Provide more questions in the form of worksheets or question cards.
- Provide variety of activities e.g. crossword puzzle to enhance pupils' understanding.
- Surf [https://www.superteacherworksheets.com/calendars/months-this-next-last\\_MONTH.pdf](https://www.superteacherworksheets.com/calendars/months-this-next-last_MONTH.pdf)





## SOLVE THE PROBLEMS

- 1 Maya helps her mother in the kitchen. What time is it?

### Method

Look at the hour hand and the minute hand.



Maya helps her mother at a **quarter past eleven**.



- 2 The clock shows the time Suyin reads her storybook. What is the time?

### Method

The shows it is night.  
The clock shows half past nine.



Suyin reads the storybook at **half past nine at night**.

5.3.1



- Guide the pupils to seek information such as what is given and what is asked for.
- Show various strategies to solve problems such as simulation.

3

Today is Tuesday. Nizam learns Physical Education. The day after tomorrow, he will learn it again. State the day.



### Method

Tuesday      Wednesday      Thursday      Friday



Today

Tomorrow

The day after

The day after tomorrow is Thursday.

4

Ajay has a test after September.  
In what month is the test?



### Method

JANUARY 2017							FEBRUARY 2017							MARCH 2017							APRIL 2017							
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
1	2	3	4	5	6	7	5	6	7	8	9	10	11	5	6	7	8	9	10	11	2	3	4	5	6	7	8	
8	9	10	11	12	13	14	12	13	14	15	16	17	18	12	13	14	15	16	17	18	9	10	11	12	13	14	15	
15	16	17	18	19	20	21	19	20	21	22	23	24	25	19	20	21	22	23	24	25	16	17	18	19	20	21	22	
22	23	24	25	26	27	28	26	27	28	29	30	31		26	27	28	29	30	31		23	24	25	26	27	28	29	
29	30	31																			30	31						
MAY 2017							JUNE 2017							JULY 2017							AUGUST 2017							
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
1	2	3	4	5	6	7	4	5	6	7	8	9	10	4	5	6	7	8	9	10	2	3	4	5	6	7	8	
8	9	10	11	12	13	14	11	12	13	14	15	16	17	11	12	13	14	15	16	17	9	10	11	12	13	14	15	
15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21	16	17	18	19	20	21	22	
22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28	25	26	27	28	29	30	31	
29	30	31					25	26	27	28	29	30		30	31						30	31						
SEPTEMBER 2017							OCTOBER 2017							NOVEMBER 2017							DECEMBER 2017							
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21	16	17	18	19	20	21	22	
22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28	25	26	27	28	29	30	31	
29	30	31					29	30	31																			

The month after September is October.

The test is in October.

- Provide a variety of questions so that the pupils can achieve TP6.
- Surf <http://www.edhelper.com/TimeMath16.htm>

5.3.1





## SELF-TEST

Solve these.

- 1 Nurul waters her plants in the morning. What time is it?



- 2 Look at the information.

- a What time are the treatment hours?  
b List all the days that the clinic is open.

### Dr. Wong Clinic

#### Treatment hours

- Mondays to Saturdays.
- 9 in the morning to 9 in the evening.
- Closed on Sundays and public holidays.

- 3 Today is Friday. Tomorrow, Jeni will visit her grandmother. State the day.

- 4 Arya wants to buy a new school bag at the end of the year. State the month.



5.3.1



- Surf <http://www.math-aids.com/Time/>
- Provide more questions in the form of worksheets or question cards.

AB pages 41 - 42



## Precious time

Let's chant.



Quarter past seven we are in class  
Listen to teachers on what they say  
Quarter past eight the clock tells us  
Every day we learn and play



Ring-a-ring the bell is ringing  
It is half past ten and time for break  
Feel so happy we start to sing  
Happy faces we feel so great



Day and time we count each tick  
To have 12 months in one whole year  
We go to school five days a week  
To gain knowledge from our teacher



Sunday, Monday, Tuesday, Wednesday  
Thursday, Friday and Saturday  
To mum and dad we must obey  
You will be happy along the way

5.1  
5.2

- Recite jazz chant and instil moral values.
- Ask the pupils to show the time mentioned in the chant using a clock model, to say the days of a week and the months of a year in sequence.



AB pages 43 - 44

## 6

# LENGTH, MASS AND VOLUME OF LIQUID



6.1.1



- Encourage the pupils to talk about the stimulation picture above.
- Focus their attention on the benches (long and short), trees (tall and short), cars (far and near), children playing on the see-saw (heavy and light), water fountain and lake (less and more).



# RECOGNISE LENGTH OF OBJECTS



We use one short bamboo and one long bamboo.

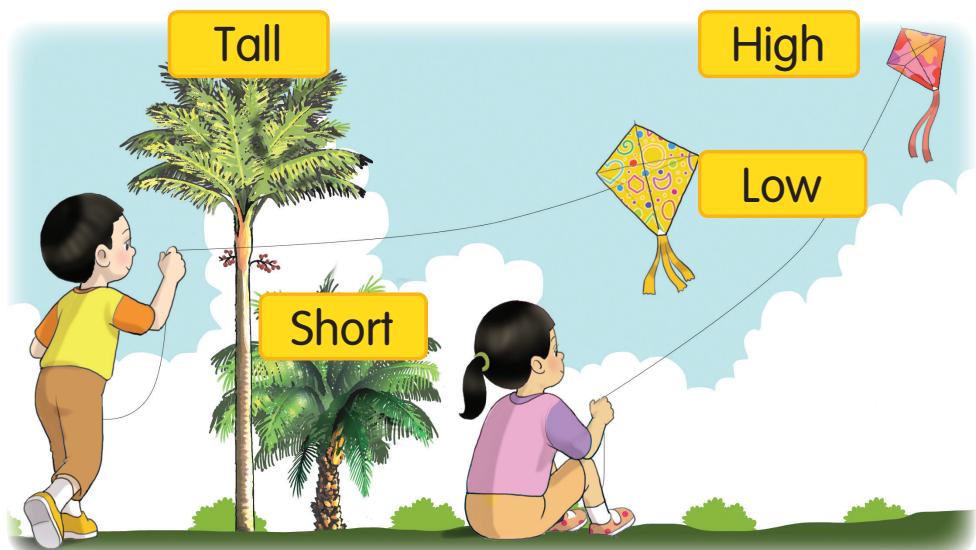


Tall

High

Short

Low



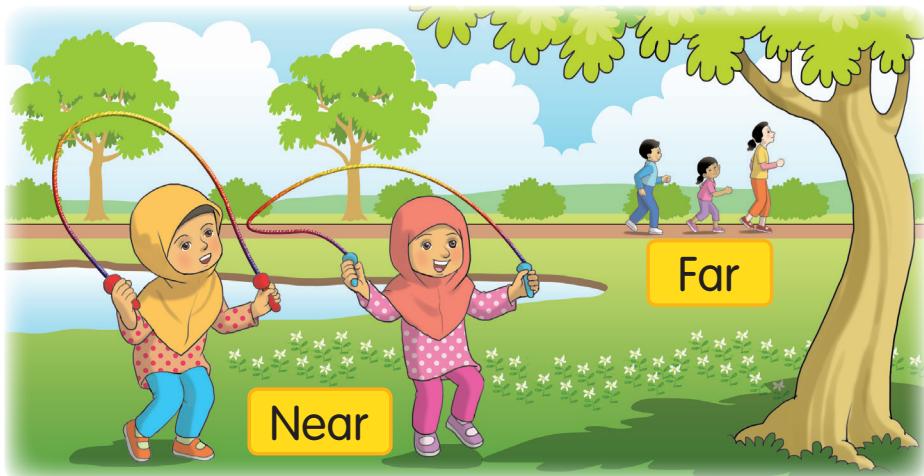
The *pinang* tree is **tall**. The palm tree is **short**.  
The flies **high**. The flies **low**.

6.I.1  
6.I.3



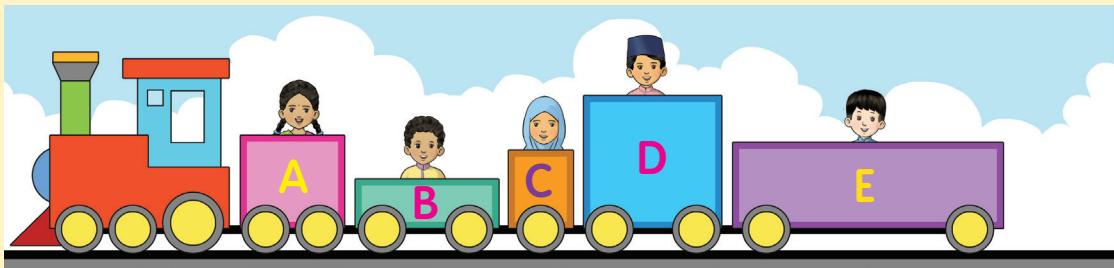
- Emphasise the use of the terms for length in various daily life situations.  
For example comparing objects in the classroom.
- Surf <https://www.ixl.com/math/kindergarten/long-and-short>

3



## SELF-TEST

Compare.



- a The coach which is **the nearest** to the locomotive is  .
- b The coach which is **the farthest** from the locomotive is  .
- c Coach  is **the longest**.
- d Coach  is **the shortest**.
- e Coach  is **the tallest**.
- f Coach  is **the lowest**.

6.1.1  
6.1.3



- Conduct activities to build objects that are long, short, high, low, far and near using plasticine, blocks and others.
- Provide more questions in the form of worksheets or question cards.
- Surf <https://www.ixl.com/math/kindergarten/long-and-short>

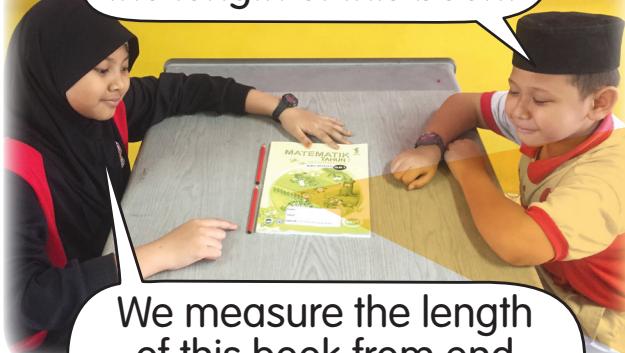
AB pages 45 - 46



# MEASURE AND COMPARE THE LENGTH OF OBJECTS



How shall we measure the length of this book?



The length of the book is the same as 2 pencils long.



The length of the coloured pencil is equal to 4 .



The length of the watch is equal to 7 .

is longer than .

6.I.2  
6.I.3



- Guide the pupils to measure length of objects using suitable non-standard units such as paper clips, coloured chips, buttons and etc.
- Provide more questions in the form of worksheets or question cards.



3



Kaswini



I hand span

Amni measures the width of the same table, 6 hand spans. Why is her measurement different from Kaswini?



4



Adli



The length of the mat is about 4 steps.

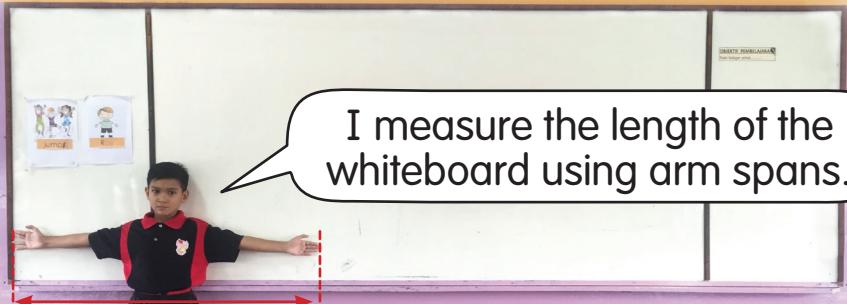
6.I.2  
6.I.3



- Carry out activities to measure length of suitable objects using hand span and so on. Discuss why the lengths differ between pupils.
- Measure the same object using different non-standard units. Discuss.



5



I arm span

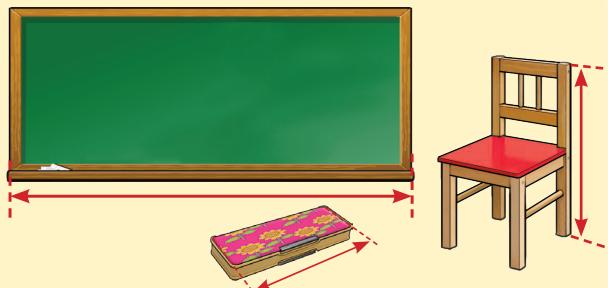
I measure the length of the whiteboard using arm spans.

The length of the whiteboard is about  
[ ] arm spans.



## SELF-TEST

- 1 Decide how to measure these objects.



- 2 Complete these.



The height of [ ] is equal to [ ] [ ].

The height of [ ] is the same as [ ] [ ] height.

[ ] is taller than [ ].

[ ] [ ] [ ].

6.I.2  
6.I.3

- Guide the pupils to make estimation before they carry out the measurement activity and compare their estimated measurements with the actual measurements.
- Surf <http://www.primaryresources.co.uk/mathsmathsEl.html#length>
- Provide more questions in the form of worksheets or question cards.

AB pages 47 - 51





## RECOGNISE MASS OF OBJECTS

This gas cylinder is heavy.  
I use a trolley to carry it.



This box  
of tissues is light.  
I can carry it.

**SHARPEN  
YOUR  
MIND**



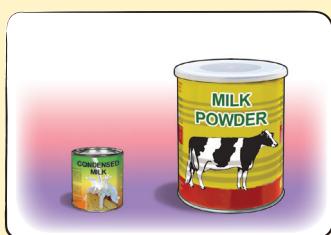
Which box  
is heavier?  
Give reasons.



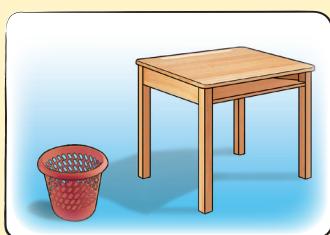
### SELF-TEST

Compare the objects below. Heavy or light?

a



b



c



6.1.1  
6.1.3



AB pages 52 - 53

- Guide the pupils to do simulation activities by carrying objects in the classroom and introduce the words “heavy” and “light”.
- Guide the pupils to reason that heaviness or lightness of an object depends on the capacity, amount, type of material used and etc.
- Provide more questions in the form of worksheets or question cards.



## WEIGH AND COMPARE THE MASS OF OBJECTS

1



The mass of the red book is equal to 5 marbles.



The mass of the blue book is equal to 8 marbles.

The mass of the red book is **less than** the mass of the blue book.

2



The mass of the apples is the same as the mass of 2 tins of sardines.



The mass of the mangoes is equal to 3 tins of sardines.

Which fruit is lighter?



6.I.2  
6.I.3



- Explain that mass is the weight value of an object.
- Guide the pupils to use different non-standard units to weigh and compare mass of objects.



3



The mass of soya sauce is less than the mass of sugar.



The mass of rice is more than the mass of sugar.

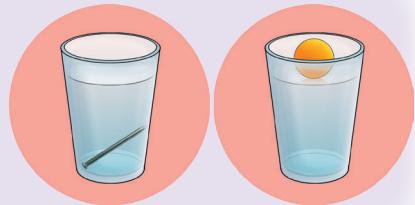
The lightest is soya sauce.

The heaviest is [ ] .

### SHARPEN YOUR MIND



Which is heavier?  
The nail or the table tennis ball? Explain.



### SELF-TEST

Weigh objects using marbles. Write down the number of marbles. Compare these.

Object	Number of marbles
Carrot	[ ]
Tomato	[ ]
Potato	[ ]

- 1 What is the heaviest object?
- 2 What is the lightest object?

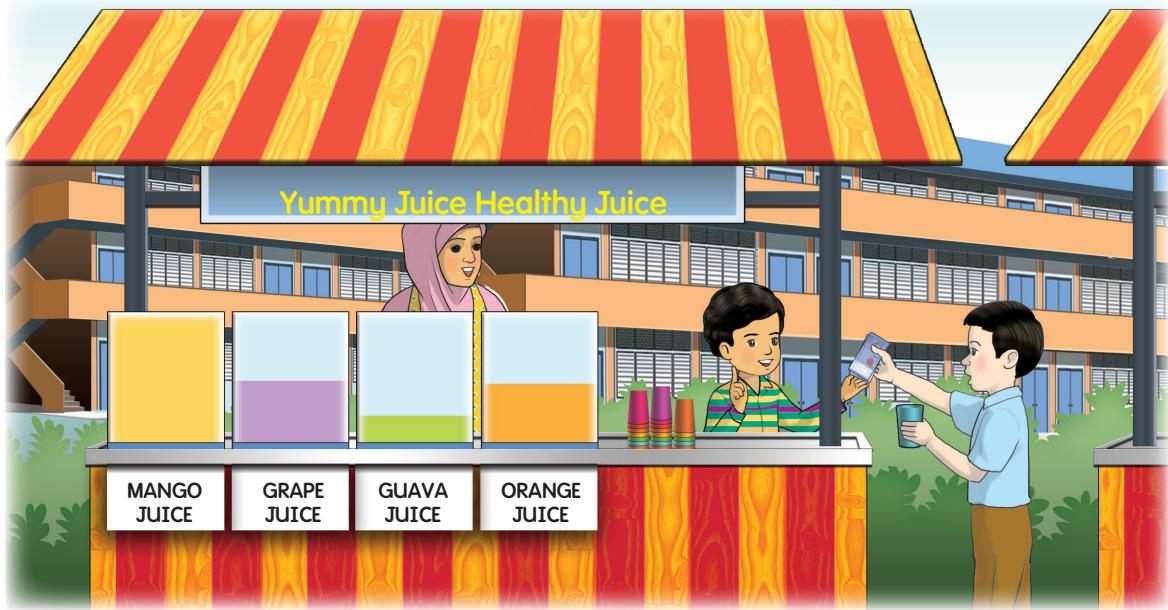
6.I.2  
6.I.3

- Build a weighing tool using clothes hangers or suitable objects to weigh and compare mass of objects in the classroom.
- Provide more questions in the form of worksheets or question cards.

AB pages 54 - 57



# RECOGNISE VOLUME OF LIQUID



The mango juice container is **full**.

There is only **a little** guava juice in the container.

The grape juice and orange juice containers are **half full**.

The volume of grape juice is the **same as** the volume of orange juice.



## SELF-TEST

Look at the picture.  
State the volume.

a lot    a little    full    half full    quarter full



6.I.1  
6.I.3

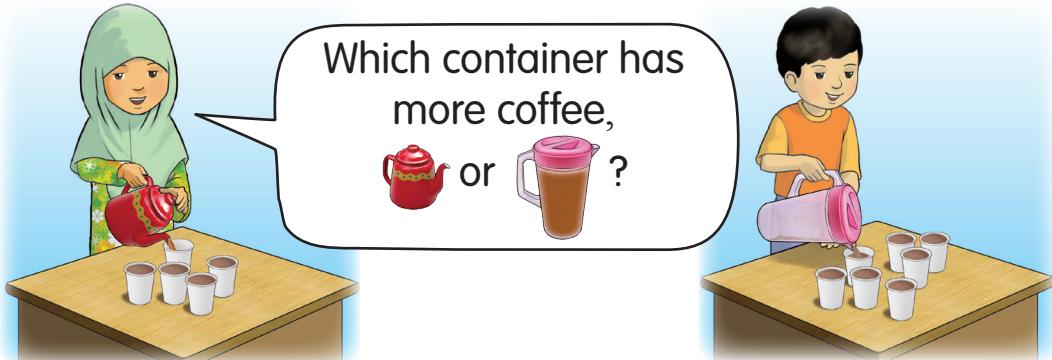


- Guide the pupils to understand volume of liquid by using different sizes of containers. For example various size of bottles. Introduce the terms "half full" and "quarter full".
- Provide more questions in the form of worksheets or question cards.

AB pages 57 - 58



## MEASURE AND COMPARE THE VOLUME OF LIQUID



The volume of is equal to 5 .

The volume of is equal to 7 .

The volume in the is **more**.



2 Compare the volumes of milk.



The volume of chocolate milk is **the most**.  
The volume of fresh milk is **the least**.

6.1.2  
6.1.3



- Explain that volume is the amount of liquid in a container.
- Carry out activities to measure volume of liquid in various containers using the same non-standard unit. Guide the pupils to make conclusions.



## SELF-TEST

Look at the picture. Answer the questions.



The volume of is equal to  .

The volume of is equal to  .

The volume of is equal to  .

The volume of is  than the volume of .

The volume of is .

6.I.2  
6.I.3



- Carry out activities to measure volume of liquid in several different containers using the same non-standard unit. The pupils record every measurement and compare them to make conclusions.
- Provide more questions in the form of worksheets or question cards.

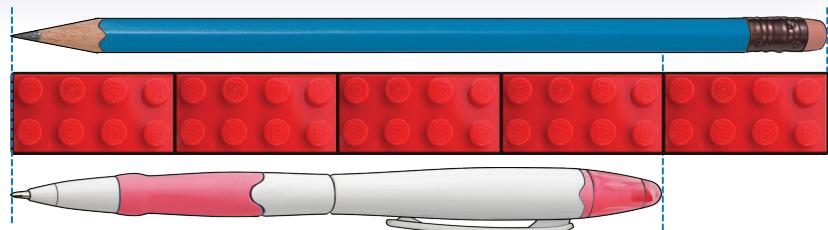
AB pages 59 - 61



## SOLVE THE PROBLEMS

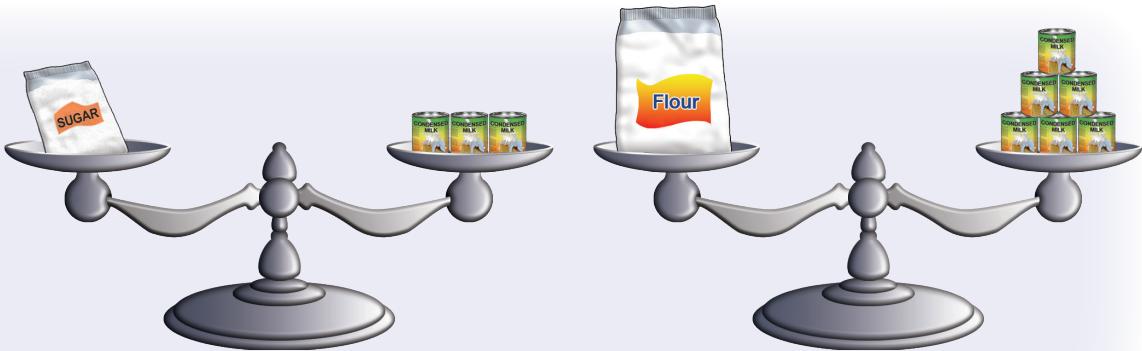
**1** The length of the pen is equal to 4 . The length of the pencil is equal to 5 . Which is longer, the pen or pencil?

### Method



The pencil is **longer than the pen.**

**2**



Which is lighter, the sugar or the flour?

### Method

The mass of sugar is equal to 3 tins of milk.  
The mass of flour is equal to 6 tins of milk.  
3 tins are less than 6 tins.

**Sugar is lighter than flour.**

6.2.1



- Use simulation method or construct model to solve problems.

3

The volume of  is equal to 6 .

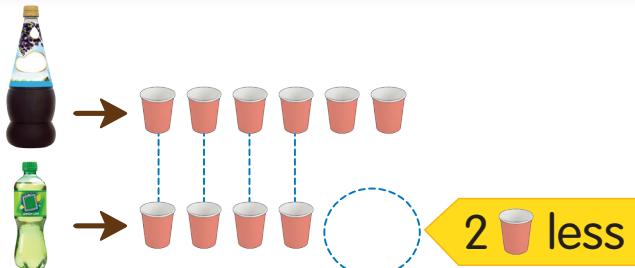


The volume of  is 2  less than the volume of .



What is the volume of ?

### Method



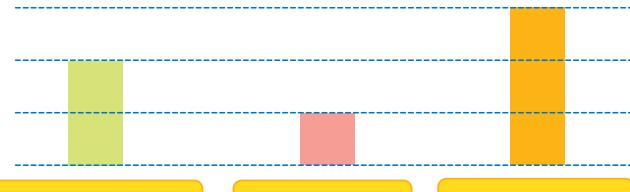
The volume of  is equal to 4 .

4



The volume of sugar cane juice is more than barley drink. The volume of sugar cane juice and barley drink is less than the volume of coconut water. Which liquid has the least volume?

### Method



Sugar cane juice

Barley drink

Coconut water



Barley drink has the least volume.

6.2.1



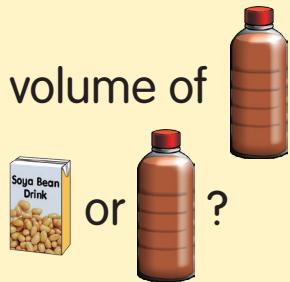
- Provide more examples involving various problems of length, mass and volume of liquid to enhance pupils' understanding.



## SELF-TEST

Solve these.

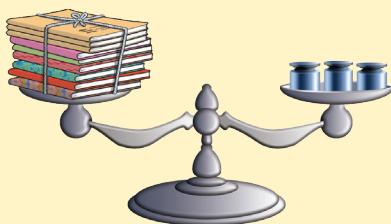
1 The volume of  is equal to 4 . The volume of



is equal to 6 . Which volume is more,  or ?

2 Ramu pours a carton of lychee juice into several glasses. Kiran drinks 1 glass. His friends drink 5 glasses. How many glasses can a carton of lychee juice fill?

3



a Which is heavier, the newspapers or the books?



b How many  for the total mass of newspapers and the books?

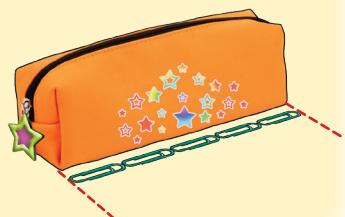
4 The length of the pencil case is equal to 5 .



The length of a pencil is equal to 4 .

Can the pencil be kept in the pencil case?

Explain.



6.2.1



- Solve given problems using suitable methods.
- Surf <https://www.sheppardsoftware.com/mathgames/menus/measurement.htm>
- Provide more questions in the form of worksheets or question cards.

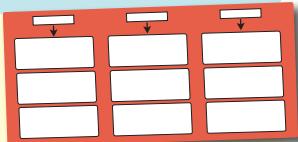




## Comparison chart

### Method

- 1 Paste suitable pictures on the task cards.



Length	Mass	Volume
High       Low	Heavy       Light	A lot       A little
Far       Near	Flour is heavy. Biscuit is light.	Full      Half full      Quarter full
The length of the pencil is 7 cm. The length of the crayon is 4 cm. The pencil is longer than the crayon.	The mass of sugar is 2 g. The mass of rice is 3 g. The mass of sugar is less than the mass of rice.	The volume of guava juice is the same as the volume of syrup water.

- 2 Decorate the task cards.  
3 Display at the Mathematics Corner.

6.1



- Prepare materials for the SMART FUN activity and guide the pupils to build the chart above.
- Carry out activities at three stations. The first station is to measure length, the second station is to measure mass and the third station is to measure volume of liquid. Prepare enough materials for these activities.

AB pages 65 - 66

7

# SHAPES



7.I.I



- Discuss the three-dimensional (3-D) shapes in the picture.
- Introduce the concept of 3-D and give examples in daily life situations.

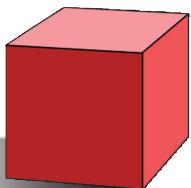


# 3-D SHAPES

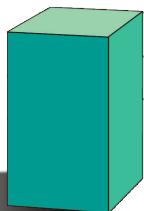


## 3-D Shapes

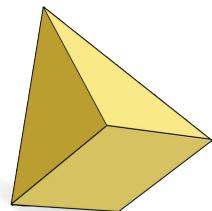
Cube



Cuboid



Pyramid



What is the shape  
of this tissue box?



7.1.1



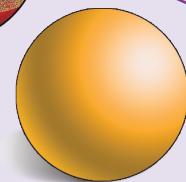
- Explain that a 3-D shape means a shape which has length, width and height.
- Conduct activities to relate real objects to cubes, cuboids and pyramids.
- Surf <http://www.ixl.com/math/grade-4/which-3-dimensional-figure-is-being-described>

2

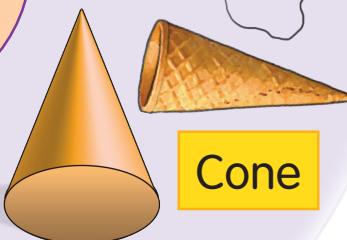


Cylinder

These are  
3-D shapes  
too.



Sphere

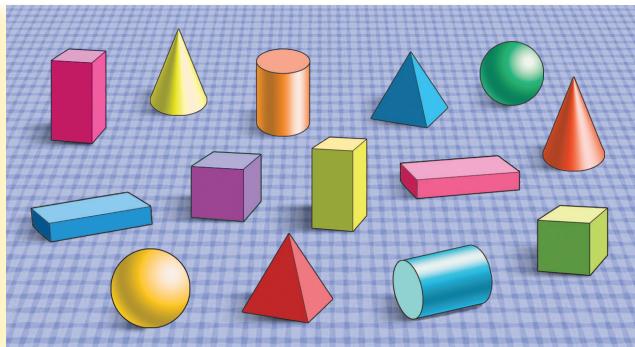


Cone



## SELF-TEST

Name the 3-D shapes in  
the picture. Count every  
shape.



What is the  
shape of  
this object?



7.I.I



- Name real objects which are in the shape of cone, cylinder and sphere.
- Provide more questions in the form of worksheets or question cards.

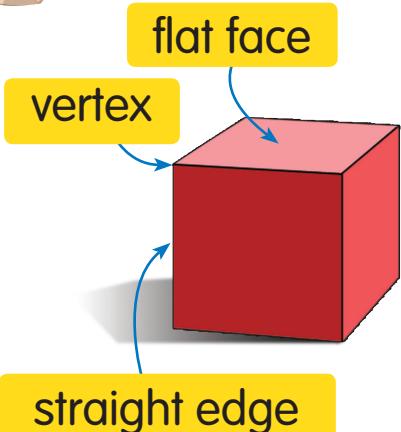
AB page 67





# RECOGNISE 3-D SHAPES

1



This is a flat face.  
All faces are of  
the same size.



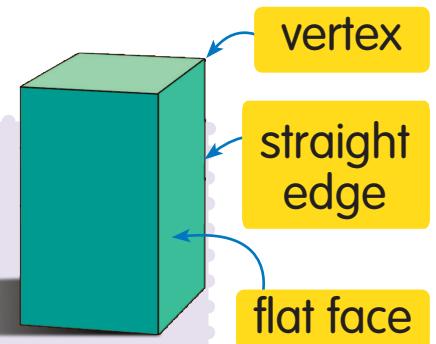
## Cubes

- 6 flat faces
- 8 vertices
- 12 straight edges

2

## Cuboid

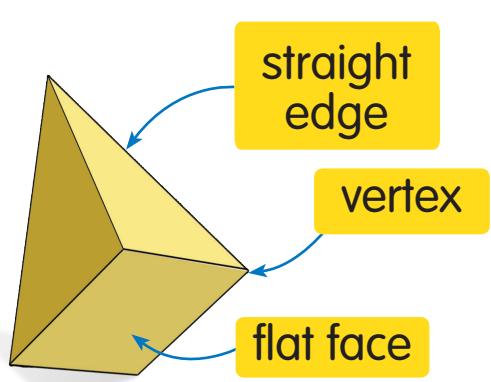
- 6 flat faces
- 8 vertices
- 12 straight edges



3

## Pyramid

- 5 flat faces
- 5 vertices
- 6 straight edges



7.1.2



- Carry out simulation to identify flat faces, vertices and straight edges using 3-D models.
- Conduct classification activities involving groups of 3-D objects according to their characteristics.
- Surf <https://www.ixl.com/math/kindergarten/shapes-of-everyday-objects>

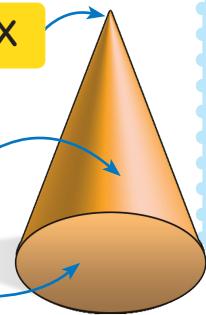


4

vertex

curved face

flat face



### Cone

- 1 flat face
- 1 curved face
- 1 vertex

5

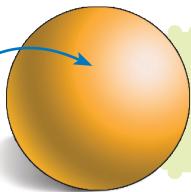
### Cylinder

- 2 flat faces
- 1 curved face



6

curved face



### Sphere

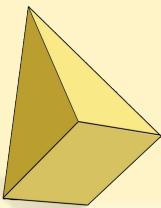
- 1 curved face



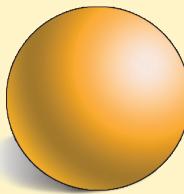
## SELF-TEST

- 1 Name the shapes that have flat faces.
- 2 All faces are of the same size. What shape is this?
- 3 Talk about the shapes.

a



b



7.I.2



- Encourage the pupils to build *i-Think* maps for characteristics of 3-D objects.
- Explain that the shape of an object is built to suit its use, for example a ball is sphere-shaped.
- Provide more questions in the form of worksheets or question cards.

AB pages 68 - 69





## 3-D SHAPES PATTERNS

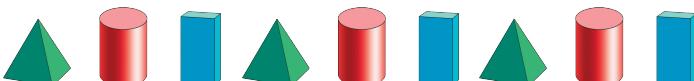


**Pattern 1**

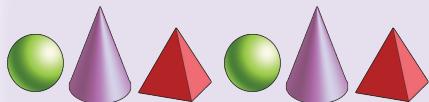


Cubes and cones are arranged repeatedly.

**Pattern 2**



Three 3-D shapes are arranged repeatedly.



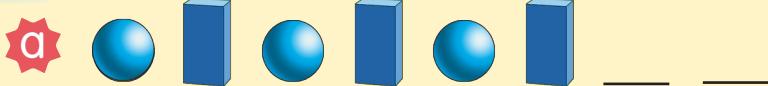
What is the 8th shape in this pattern?



### SELF-TEST



Name the missing 3-D shapes.



7.1.3

TEACHER'S NOTES

- Carry out activities to arrange small objects in 3-D patterns.
- Build mobiles of 3-D shapes pattern.
- Provide more questions in the form of worksheets or question cards.





## BUILD MODELS



Wow! So beautiful! This model is made up of 3-D shapes.



Castle

Tower

Castle Model

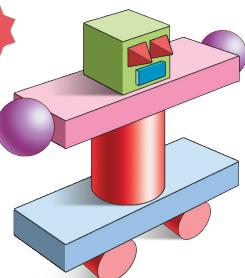
Shape	Number of shapes
Cone	2
Cylinder	3
Cube	2
Cuboid	1
Pyramid	1

Tower Model

Shape	Number of shapes
Cone	1
Cylinder	2
Cube	1
Cuboid	1

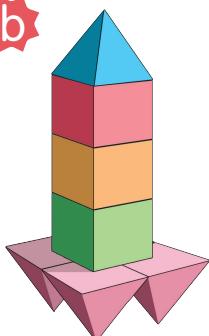


a



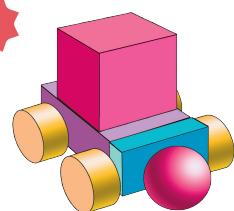
Robot

b



Rocket

c



Car



SELF-TEST

Build your own models.  
What 3-D shapes did you use?

Talk about  
the 3-D shapes  
in these three  
models.



7.1.4



- Encourage the pupils to build and name their own models and then display their work in class.
- Surf <http://www.primaryresources.co.uk/mathsmathsE3.htm#2>
- Provide more questions in the form of worksheets or question cards.

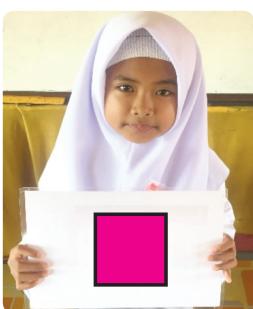
AB page 71



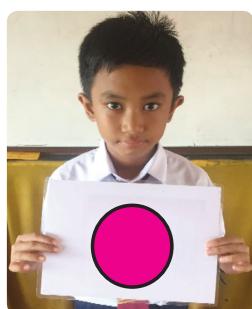
## 2-D SHAPES

2-D shapes exist on the flat faces of 3-D shapes.

1



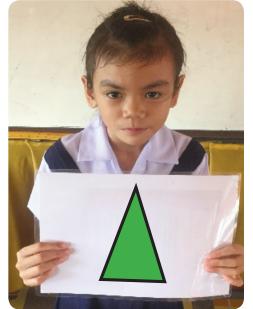
2



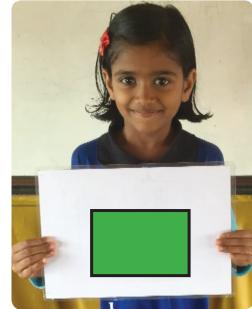
Square

Circle

3



4



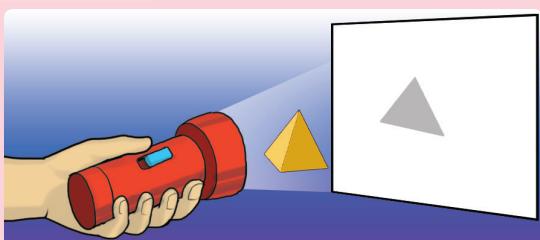
Triangle

Rectangle

**SHARPEN  
YOUR  
MIND**



What is the 2-D shape shown on the screen?



SELF-TEST

Name these  
2-D shapes.

a



b



7.2.1



- Trace around one flat face of a 3-D shape to get a 2-D shape.
- Explain the meaning of 2-D shapes by comparing it with 3-D shapes.
- Provide more questions in the form of worksheets or question cards.



AB page 72

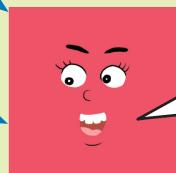


# RECOGNISE 2-D SHAPES



There are  
**4 straight sides.**  
There are  
**4 corners.**

corner  
straight side



I am  
**a square.**



I am  
**a rectangle.**



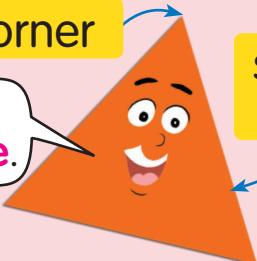
straight side

There are  
**4 straight sides.**  
There are  
**4 corners.**

corner



corner  
I am  
**a triangle.**



straight side

There are **3 straight sides.**  
There are **3 corners.**



curved side  
I am  
**a circle.**

There is **1 curved side**  
only.



## SELF-TEST

- 1 My side is curved. What shape am I?
- 2 Name the 2-D shape that has no curved side.

7.2.2



- Explain that 2-D shape is a shape that has a flat face and no thickness.
- Ask the pupils to name and show corners, straight sides and curved sides based on picture cards of 2-D shapes.
- Carry out activities to build 2-D shapes using the geoboard.

AB pages 73 - 74





## 2-D SHAPES PATTERNS



Pattern 1



Triangles and rectangles are arranged repeatedly.

Pattern 2



Three types of shapes are arranged repeatedly.



### SELF-TEST

What are the missing shapes?

a



b



7.2.3



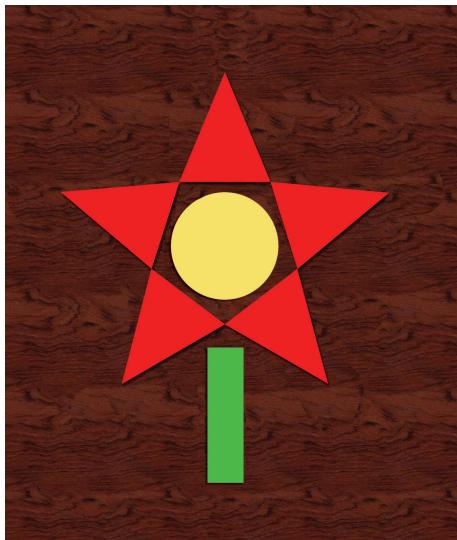
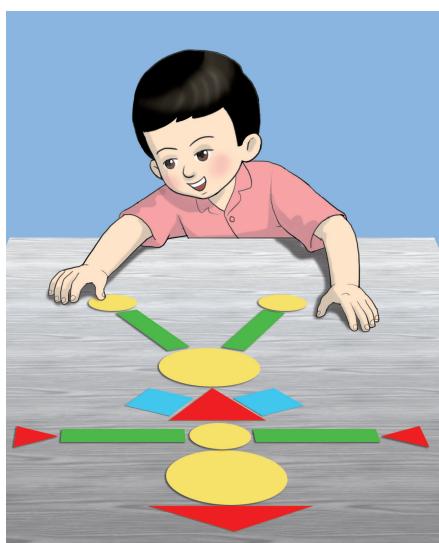
- Explain the meaning of pattern to pupils.
- Encourage the pupils to surf the Internet for various patterns found on mats, bedsheets, clothes and others.
- Provide more questions in the form of worksheets or question cards.

AB page 75

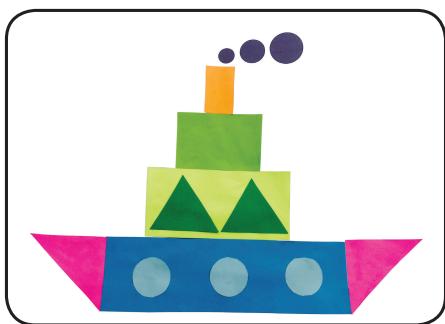




## CREATE PATTERNS



Shape				
Number of shapes	2	5	4	4



Talk about  
the pattern.

Shape				
Number of shapes	0	1	5	1



### SELF-TEST



Create your own  
patterns.

7.2.4



- Guide the pupils to understand the meaning of pattern and design, and differentiate it.
- Carry out activities in pairs to make patterns using 2-D shape cut-outs.
- Surf <http://www.kidzpark.com/worksheet/Fun-with-shapes-6/1556/>

AB page 76

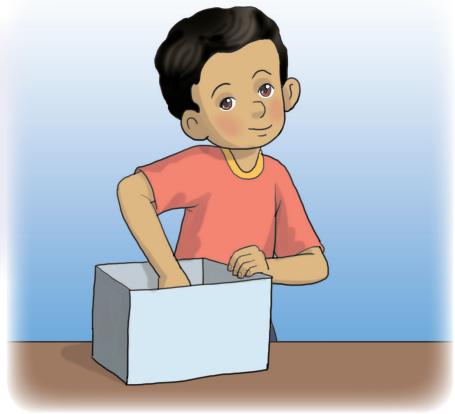




## SOLVE THE PROBLEMS



1 Danish picks a 3-D shape from a box. It has 1 vertex and 1 flat face. What shape is it?



### Method

Guess and check.

**Shape 1**



It has 5 vertices and 5 flat faces.

**Shape 2**



It has 1 vertex and 1 flat face.

It is a **cone**.

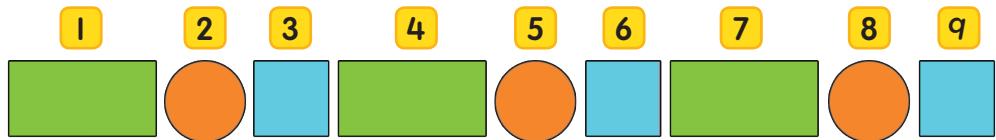


2 Yong arranges a 2-D shapes pattern. What is the eighth shape?

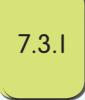


### Method

Arrange a 2-D shapes pattern.



The eighth shape is a **circle**.



- Guide the pupils to underline important information in the question.



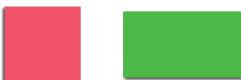


3 Azri chooses two 2-D shapes. The total number of sides for both shapes is 7. What are the two shapes?



### Method

First try



$$4 \text{ sides} + 4 \text{ sides} = 8 \text{ sides}$$

Second try



$$4 \text{ sides} + 3 \text{ sides} = 7 \text{ sides}$$

Third try



$$3 \text{ sides} + 4 \text{ sides} = 7 \text{ sides}$$

Azri chooses 1 square and 1 triangle.

Azri can also choose 1 triangle and 1 rectangle.



### SELF-TEST

- 1 Seha looks at two 2-D shapes. The total number of sides is 8. What are the shapes?
- 2 I have vertex. I have flat face. I also have curved face. What shape am I?

7.3.1



- Use simulation strategy based on the given characteristics.
- Provide more questions in the form of worksheets or question cards.

AB pages 77 - 78



## Fun shapes

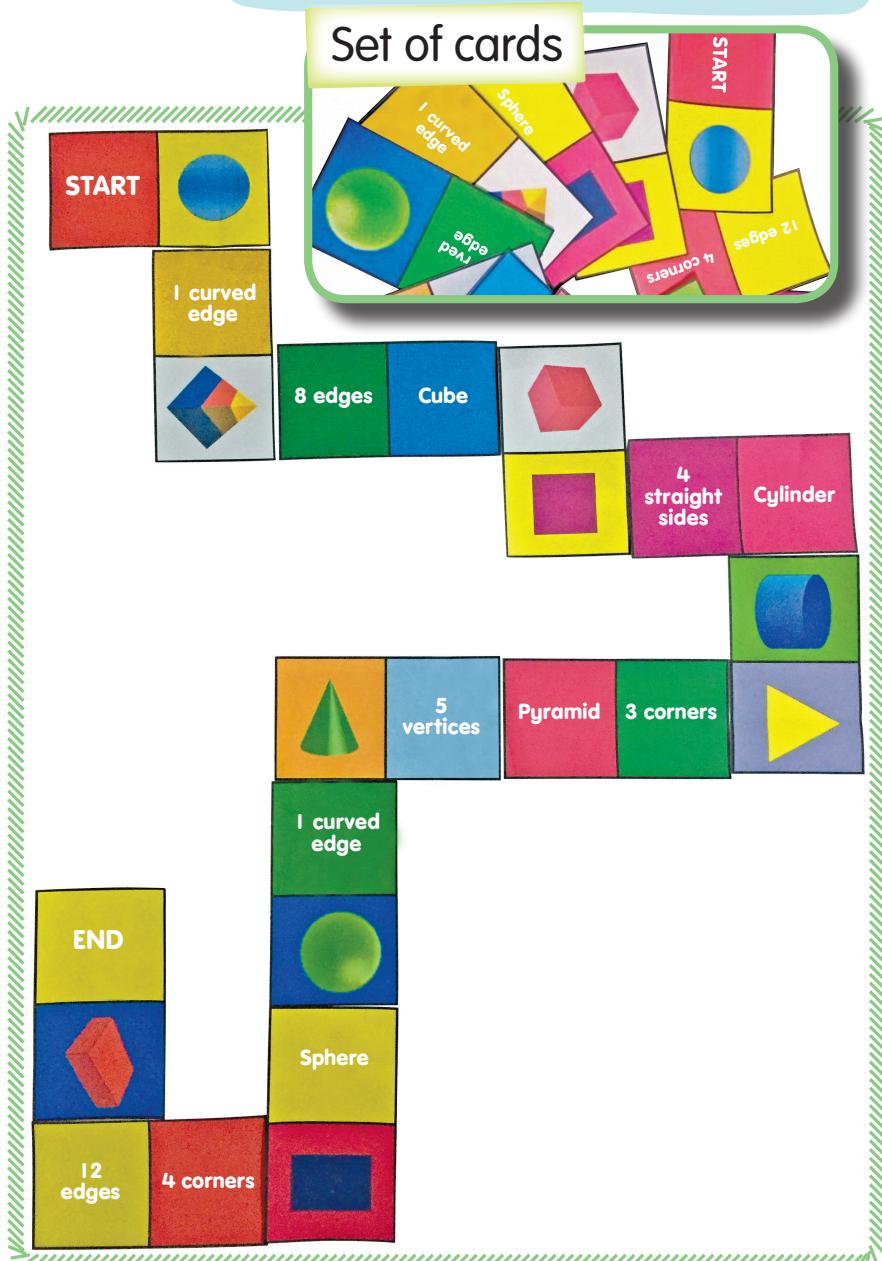
### Rules

- 1 Take a set of cards.
- 2 Match the cards one by one.
- 3 Paste all the cards onto the drawing paper.
- 4 The group that finishes first is the winner.
- 5 Display your work. Talk about it.

**Participants** 4 to 6 pupils in a group.

**Materials** Matching-cards (1 set - 12 cards), glue, drawing paper.

### Set of cards



7.I.1  
7.I.2  
7.2.1  
7.2.2



- Prepare enough materials for the group activity.
- Guide the pupils to carry out the activity as a team.

## 8

## DATA



8.I.I



- Explain that data is a group of information or facts.
- Carry out collection of data activities in groups about the types of clothes, favourite food and beverages, and etc.
- Surf <http://www.toytheater.com/fishing.php>



## COLLECT DATA



Draughts

Kite



Football



There are  
three games.



Game	Tally
Draughts	
Football	
Kite	



1, 2, 3, 4.

I make  
tally.

8.1.1

TEACHER'S  
NOTES

- Pose questions to pupils based on the picture to extract information such as types of games and number of players.
- Collect other data like gender of players.
- Surf <http://www.iboard.co.uk/iwb/Alien-Snail-Racing-634>



After you make tally, count the players.

The mark | is 1. The mark **||||** is 5.

Game	Tally	Number of players
Draughts		4
Football		3
Kite		6



Collect data on the number  
of girls and boys.



Player	Tally	Number of players
Girls		
Boys		



## SELF-TEST

Count the number of objects in the classroom.  
Complete the table.

Object	Tally	Number of objects
Light		
Glasses		
Pencil case		

8.I.I



- Explain that tally is a mark made when counting to make sure there is no counting error.
- Provide more exercises in making tally based on pictures of situations or data.
- Surf <http://www.topmarks.co.uk/Flash.aspx?b=maths/interpretingdata>

AB pages 81 - 83



## RECOGNISE PICTOGRAPH



This is a pictograph about favourite games for a group of children.

Favourite Games

Draughts	4 smiley faces
Football	3 smiley faces
Kite	5 smiley faces

Smiley face represents 1 child

a There are 4 children who like to play draughts.

b 3 children like to play football.

c [ ] children like to fly kite.

d The most favoured game is [ ].

e The least favoured game is [ ].

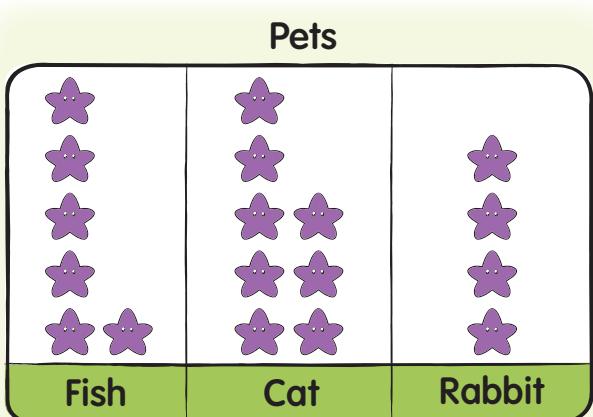
8.2.1



- Explain that a pictograph is a diagram with pictures or symbols.
- Carry out activities to read information and answer questions based on the given pictograph.



**2** Afif collects information on pets of his classmates.



represents 1 pupil

**a** How many pupils keep each pet?

Fish

6

Cat

8

Rabbit



**b** The animal that most pupils keep as pet is .

**c** The least pet that Afif's friends keep is .



<i>Kuih Sales</i>	
Curry puff	
Pau	
Doughnut	
Koci	

Pau is sold 1 less than doughnut.  
How many pau is sold?

represents 1 *kuih*

8.2.1



- Instil moral values on the need to love animals.
- Provide a variety of questions on pictograph to strengthen pupils' understanding.

AB pages 84 - 85

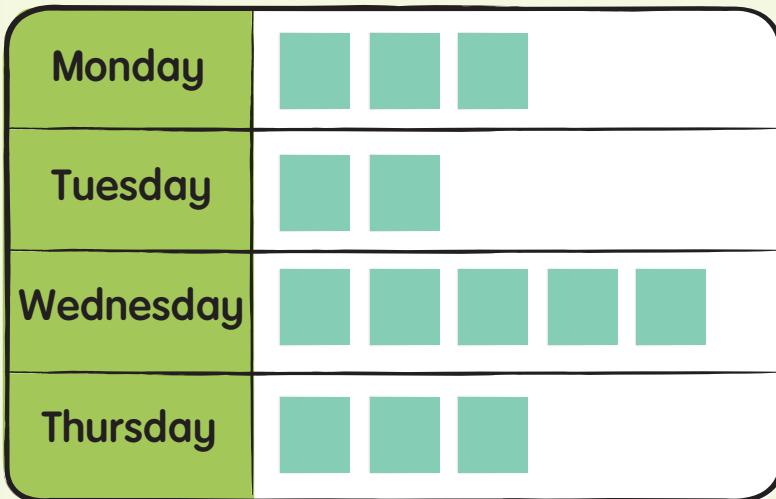




## SELF-TEST

Look at the pictograph. Answer the questions.

Nadia's Savings



represents RMI

- a How much money is saved on:
  - i Monday?      ii Tuesday?
- b On what day does Nadia save RM5?
- c What is the least amount of money saved?
- d Nadia saves the same amount of money for two days.  
Name the two days.
- e On what day does Nadia save the most?

8.2.1

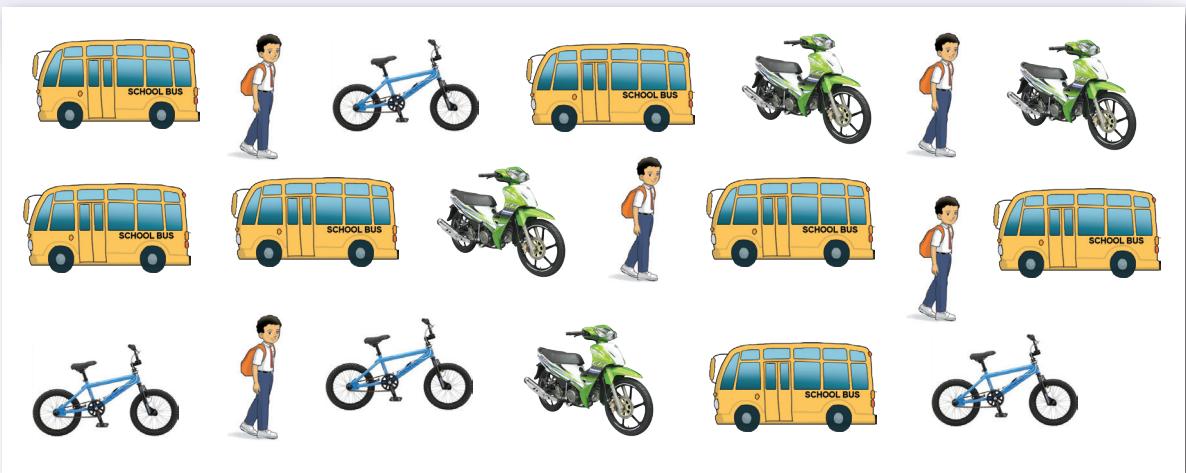


- Provide more questions on extracting information based on various pictographs in the form of worksheets or question cards.
- Surf <http://www.toytheater.com/fruit-fall.php>



## SOLVE THE PROBLEMS

- I Look at the data of ways that Year I Pintar pupils go to school. Arrange the data in a table.



### Method

### Ways to Go to School

Way	Tally	Number of pupils
Bicycle		4
School bus		7
Motorcycle		4
Walk		5



Many pupils take the bus. Why?

8.3.1



- Guide the pupils to solve problems by showing systematic steps to solve problems and use variety of strategies such as drawing diagrams.
- Surf [http://www.learnalberta.ca/content/me3us/flash/lessonLauncher.html?lesson=lessons/15/m3\\_15\\_00\\_x.swf](http://www.learnalberta.ca/content/me3us/flash/lessonLauncher.html?lesson=lessons/15/m3_15_00_x.swf)
- Guide the pupils the correct way to make tally.

2

The pictograph shows the favourite fruits of a group of pupils.



Favourite Fruit

Grapes	
Mango	
Durian	
Apple	

represents 1 pupil

- a What is the most favoured fruit?
- b How many pupils like mango?

### Method

a	Grapes	
	Mango	
	Durian	
	Apple	



Durian is the favourite fruit.

Durian is the most favoured fruit.

- b 4 pupils like mango.

8.3.1



- Guide the pupils to solve problems using simulation and representation.
- Provide various types of question to enhance pupils' understanding.
- Surf <http://www.topmarks.co.uk/Flash.aspx?f=pictograms>

AB pages 86 - 88



## SELF-TEST

- 1 Look at the data on games of a group of children.

Snakes and ladders	Chess	Snakes and ladders
Chess	Snakes and ladders	Chess
Snakes and ladders	Congkak	Snakes and ladders
Congkak	Snakes and ladders	Chess



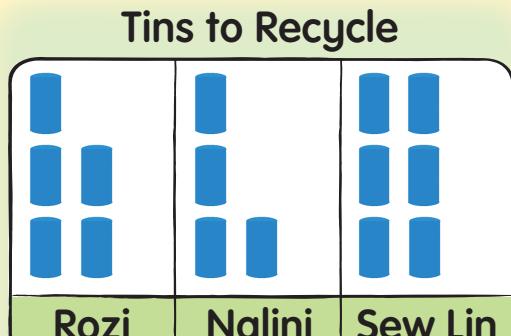
- a Arrange the data in the table.

Type of game	Tally	Number of players

- b What is the favourite game?

- 2 Look at the pictograph. Solve the problem.

- a How many tins did Nalini collect?  
b Who collected the most tin?



represents 1 tin

8.3.1



- Guide the pupils to compare data such as the most number, the least number and etc.
- Provide more questions in the form of worksheets or question cards.



## Wheel of data

**Participants** 6 pupils in a group.

**Materials** Fruit-wheel, pencil, pen, table.

### Method

- 1 Take turns to turn the wheel twice.
- 2 Fill up the tally column in the table.
- 3 Complete the table.

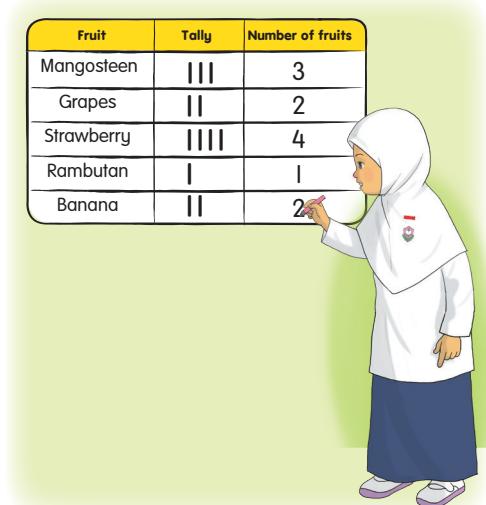
### Maju Group

Fruit	Tally	Number of fruits
Mangosteen		3
Grapes		2
Strawberry		4
Rambutan		1
Banana		2



- 4 Talk about your group's data.

Fruit	Tally	Number of fruits
Mangosteen		3
Grapes		2
Strawberry		4
Rambutan		1
Banana		2



8.I.I



- Prepares the fruit-wheel or it can be modified to other themes such as hobbies, animals and others.
- Instil moral values such as cooperation.

AB pages 89 - 90