RUKUN NEGARA

Bahawasanya Negara Kita Malaysia
mendukung cita-cita hendak:

Mencapai perpaduan yang lebih erat dalam kalangan
seluruh masyarakatnya;

Memelihara satu cara hidup demokrasi;

Mencipta satu masyarakat yang adil di mana kemakmuran negara
akan dapat dinikmati bersama secara adil dan saksama;

Menjamin satu cara yang liberal terhadap
tradisi-tradisi kebudayaannya yang kaya dan pelbagai corak;

Membina satu masyarakat progresif yang akan menggunakan
sains dan teknologi moden.

MAKA KAMI, rakyat Malaysia,
berikrar akan menumpukan
seluruh tenaga dan usaha kami untuk mencapai cita-cita tersebut
berdasarkan prinsip-prinsip yang berikut:

KEPERCAYAAN KEPADA TUHAN
KESETIAAN KEPADA RAJA DAN NEGARA
KELUHURAN PERLEMBAGAAN
KEDAULATAN UNDANG-UNDANG
KESOPANAN DAN KESUSILAAN

(Sumber: Jabatan Penerangan, Kementerian Komunikasi dan Multimedia Malaysia)

STANDARD-BASED CURRICULUM FOR PRIMARY SCHOOL (REVISED 2017)
DUAL LANGUAGE PROGRAMME

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YEAR 3

PART 2

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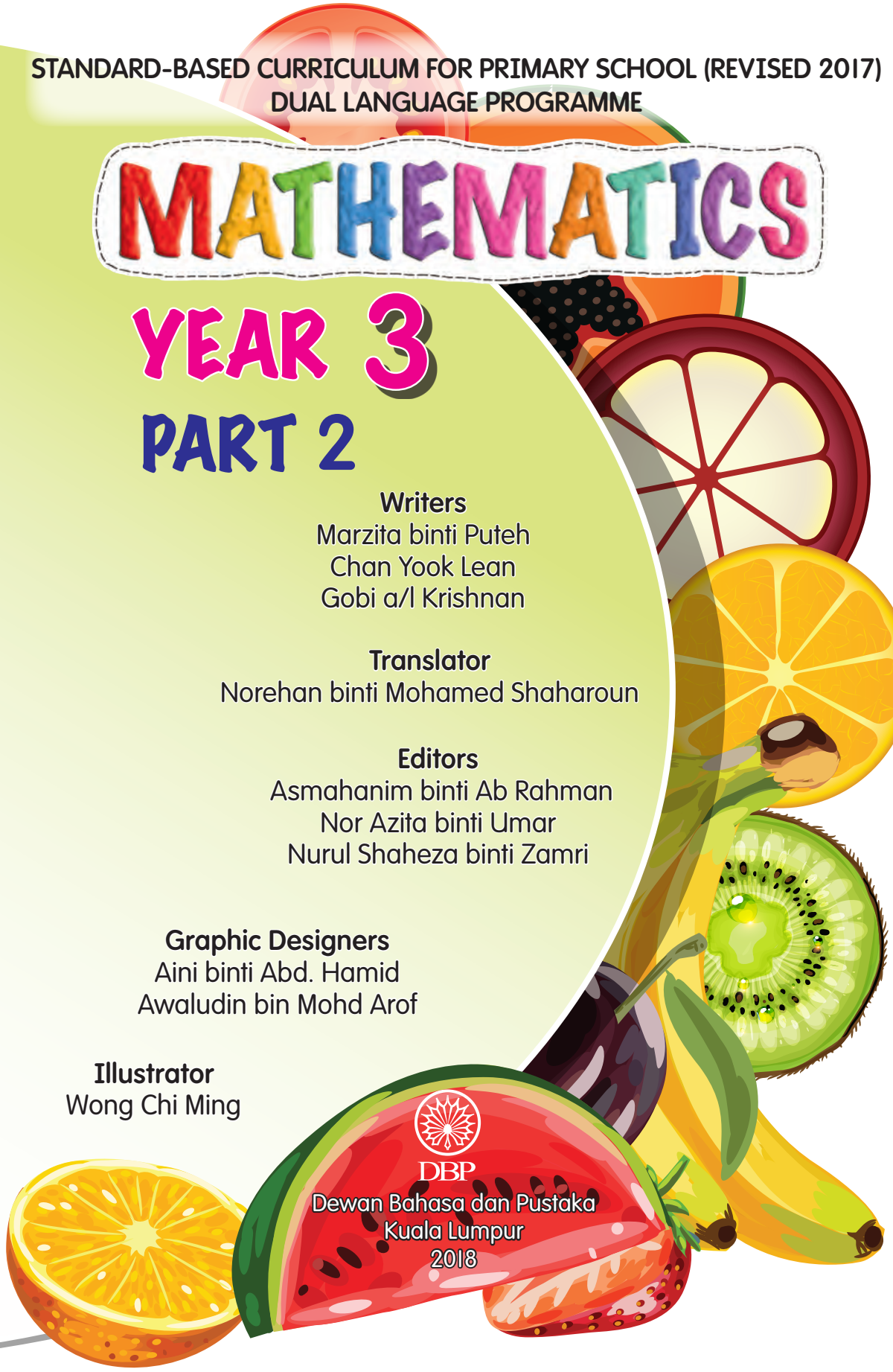

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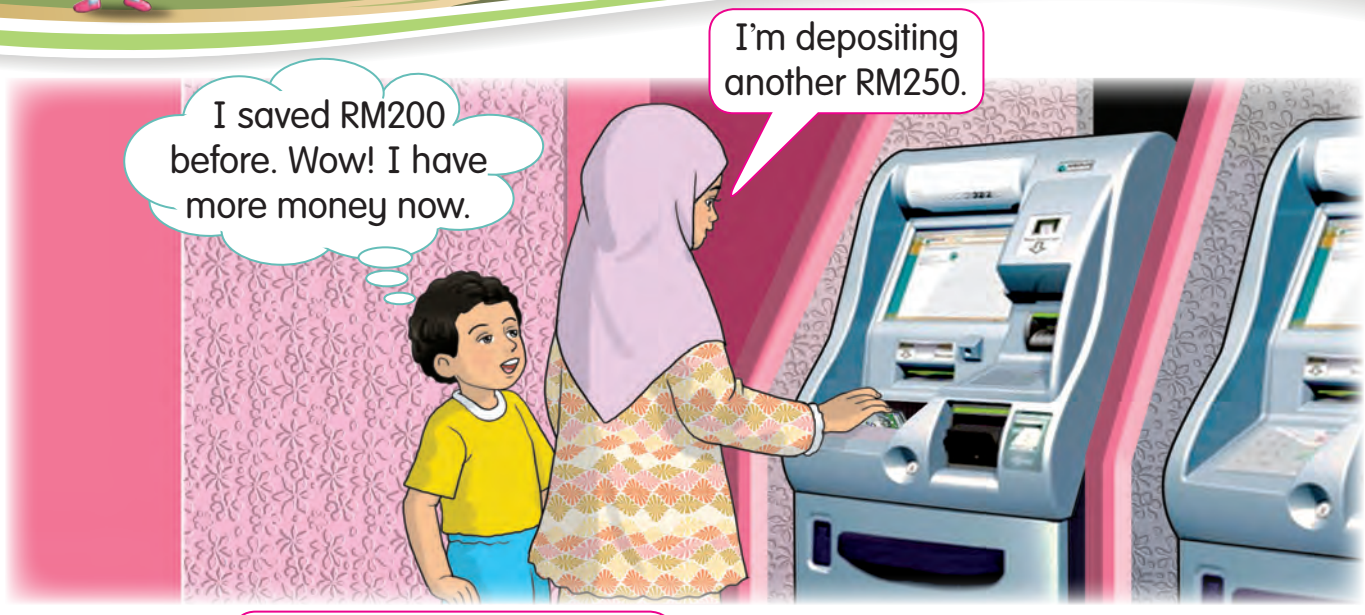
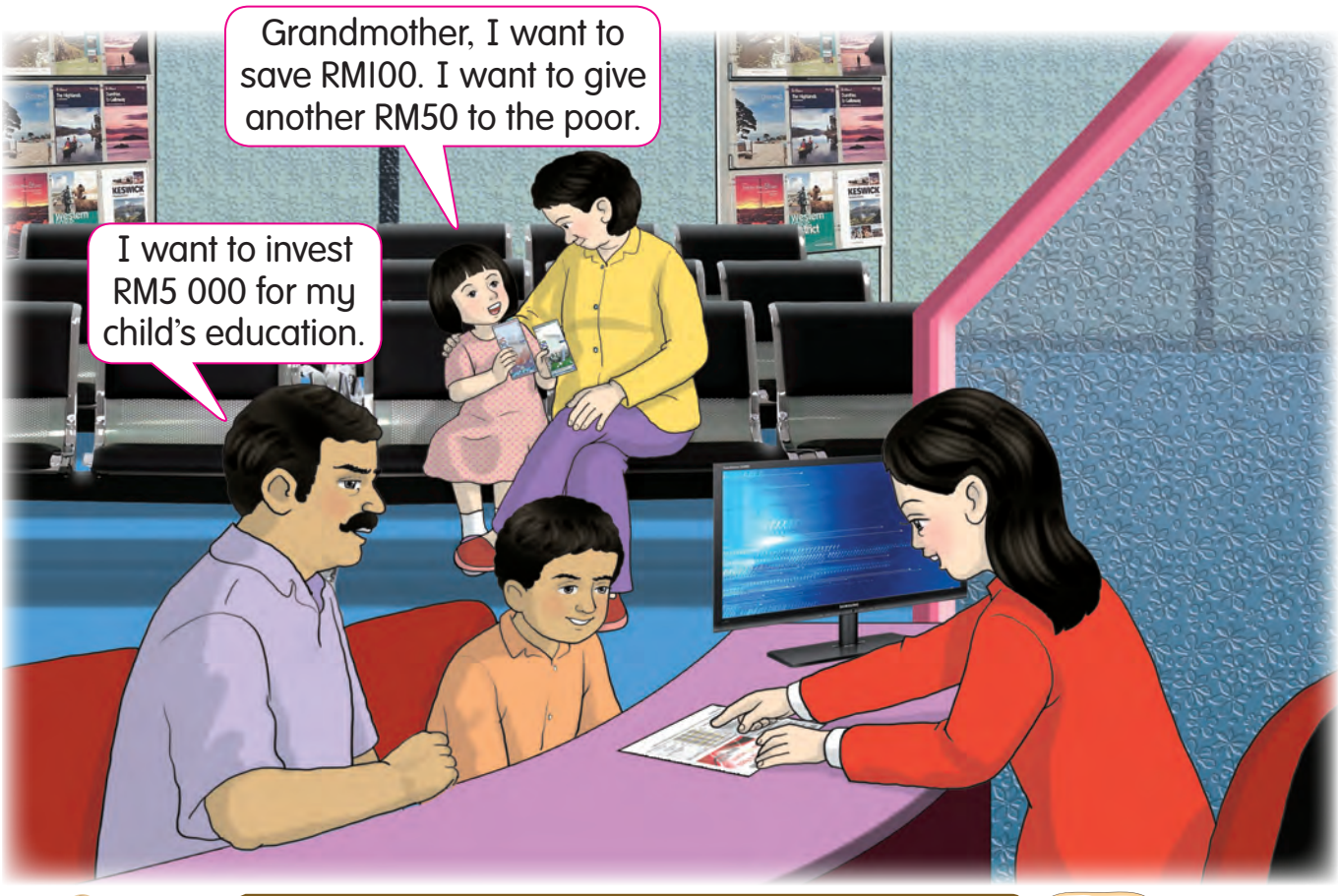
4 MONEY





TEACHER'S NOTES

- Ask pupils to talk about the pictures above. Relate money to daily life.
- Instil values of being thrifty for savings and future investments.

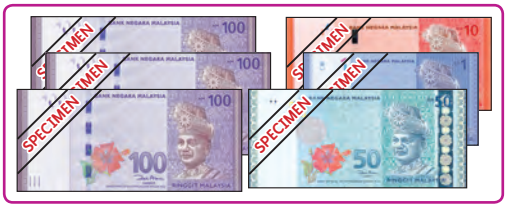
4.1
4.2
4.7

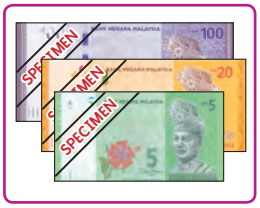
KPM

ADDITION OF MONEY

1 a Calculate the total cost of  and  .

RM361 + RM125 = ☐





No.	Item	Unit	Price	Amount
1.	Bicycle	1	RM361	RM361
2.	Crash helmet	1	RM125	RM125
3.	Jersey	1	RM 79	RM 79

```
  RM 3 6 1
+ RM 1 2 5
---------
  RM 4 8 6
---------
```

RM361 + RM125 = **RM486**

The total cost of  and  is **RM486**.

b What is the total cost of the three items?

RM361 + RM125 + RM79 = ☐

Method 1

```
  RM 3 6 1
+ RM 1 2 5
---------
  RM 4 8 6
---------
```

```
    1
  RM 4 8 6
+ RM   7 9
---------
  RM 5 6 5
---------
```

Method 2

```
    1 1
  RM 3 6 1
  RM 1 2 5
+ RM   7 9
---------
  RM 5 6 5
---------
```

RM361 + RM125 + RM79 = **RM565**

The total cost of the three items is **RM565**.

Compare the two methods. Which one is easier? Discuss.

TEACHER'S NOTES

- Carry out buying and selling activities in the classroom using play money.
- Emphasise that adding money values is similar to adding whole numbers.

4.1.1
4.1.2

2 RM2 073.05 + RM948.60 + RM1 329.75 = ☐

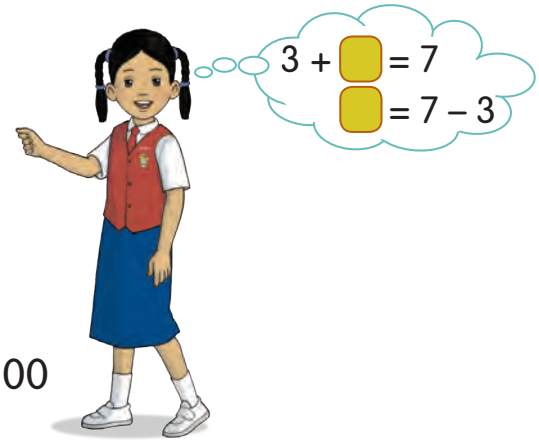
```
    1  1 2 1   1
  RM 2 0 7 3 . 0 5
  RM   9 4 8 . 6 0
+ RM 1 3 2 9 . 7 5
-------------------
  RM 4 3 5 1 . 4 0
```

5 sen + 60 sen + 75 sen = 140 sen

RM2 073.05 + RM948.60 + RM1 329.75 = **RM4 351.40**

3 RM3 480 + ☐ = RM7 500

```
      4 10
  RM 7 5 0 0
- RM 3 4 8 0
-----------
  RM 4 0 2 0
```



RM3 480 + **RM4 020** = RM7 500

LET'S TRY

Add.

a
```
  RM 1 0 4 3
+ RM   9 2 6
-----------
  [        ]
```

b
```
  RM 7 1 6 5 . 2 0
+ RM 1 2 8 4 . 7 5
-----------------
  [              ]
```

c
```
  RM 3 8 0 5 . 1 0
  RM 1 9 2 4 . 3 0
+ RM     6 9 . 8 0
-----------------
  [              ]
```

d RM1 639.60 + RM857.90 = ☐

e ☐ = RM524.35 + RM4 086 + RM91.90

f RM7 216.30 + ☐ = RM9 457.80

AB 77-78 TEACHER'S NOTES

- Carry out games or quizzes of adding money values using sales brochures, picture cards, and play money.
- Emphasise that the decimal points between ringgit and sen must be aligned.

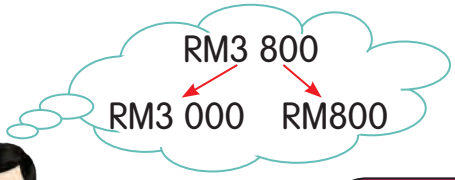
4.1.1
4.1.2

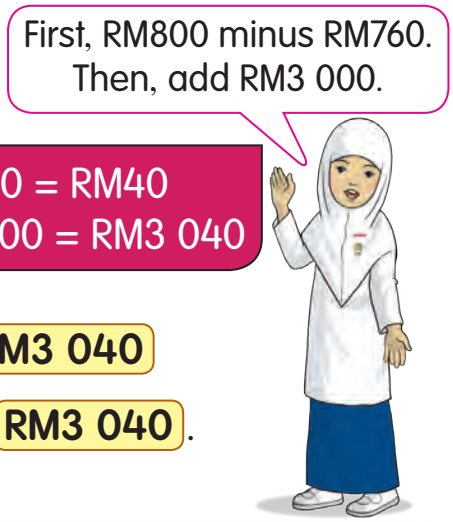
KPM

SUBTRACTION OF MONEY

1 a What is the difference in price between the piano and the guitar?

RM3 800 – RM760 = ☐





RM800 – RM760 = RM40
RM40 + RM3 000 = RM3 040

RM3 800 – RM760 = **RM3 040**

The difference in price is **RM3 040**.

b Adi pays RM4 600 for the piano and the guitar. Find his balance.

RM4 600 – RM3 800 – RM760 = ☐

	RM ~~4~~ ~~6~~ 0 0	RM ~~8~~ ~~0~~ 0
	3 16	7 10
–	RM 3 8 0 0	– RM 7 6 0
	RM 8 0 0	RM 4 0

RM4 600 – RM3 800 – RM760 = **RM40**

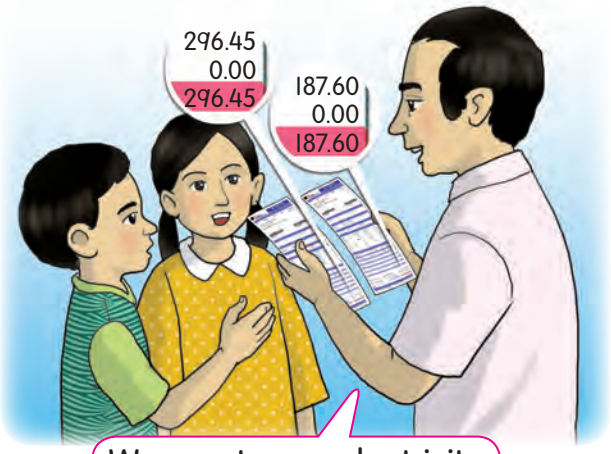
Adi's balance is **RM40**.

TEACHER'S NOTES

- Train pupils to find the balance and price differences of goods.
- Carry out buying and selling activities involving subtraction using objects or picture cards based on themes such as toys, clothes, and accessories.

4.2.1
4.2.2

2 RM296.45 – RM187.60 = ☐



8 15
2 ~~9~~ ~~5~~ 14 5
RM ~~2~~ ~~9~~ ~~6~~ . ~~4~~ ~~5~~
– RM 1 8 7 . 6 0
RM 1 0 8 . 8 5

RM296.45 – RM187.60 = **RM108.85**

Try comparing your house electricity bills. Discuss the difference.

3 Calculate Encik Zaki's balance if he pays RM700 for these two goods.

RM700 – RM638.80 – 95 sen = ☐

6 9 9 10 0
RM ~~7~~ ~~0~~ ~~0~~ . ~~0~~ ~~0~~
– RM 6 3 8 . 8 0
RM 6 1 . 2 0

6 0 12 0
RM 6 ~~1~~ . ~~2~~ ~~0~~
– RM 0 . 9 5
RM 6 0 . 2 5

RM700 – RM638.80 – 95 sen = **RM60.25**

Encik Zaki's balance is **RM60.25**.

Fauzi buys two books.
 is cheaper than  .
Fauzi uses 2 notes of equal value to pay for the books.
Find the price of  and the value of each note.

- Focus on regrouping from ringgit to sen. Emphasise that RM1 is equal to 100 sen.
- Instil values such as spending money wisely and being responsible.

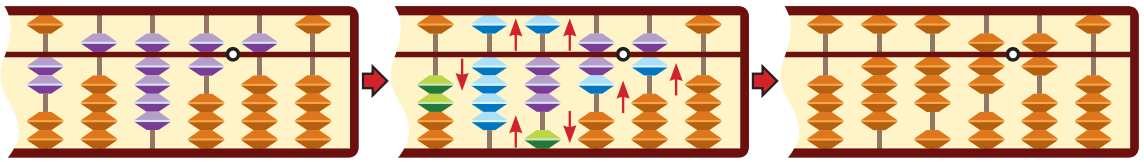
4.2.1
4.2.2

KPM

4 ☐ – RM2 158.90 = RM437.60

		1	1			
	RM 2	1	5	8	. 9	0
+ RM		4	3	7	. 6	0
	RM 2	5	9	6	. 5	0

RM2 596.50 – RM2 158.90 = RM437.60



LET'S TRY

1 Subtract.

a RM 1 947 – RM 627 = ☐

b RM 3 809.25 – RM 1 540.10 = ☐

c RM 6 110.30 – RM 3 917.65 = ☐

☐ – RM 69.80 = ☐

d RM5 230 – RM967 – RM1 086 = ☐

e RM7 140.40 – RM2 628.35 – 70 sen = ☐

f ☐ – RM3 018.25 = RM5 947.90

2 Find the difference in price between the two antique clocks.


RM6 560.20


RM9 258

KPM

AB 79-80 TEACHER'S NOTES

- Encourage pupils to check receipts of purchases and balance received correctly.
- Use a variety of terms such as how much more and how much less in problems involving money.

4.2.1
4.2.2

1 Look at the account book. Find Asif's balance on 17 August 2019.

Date	Cash in	Cash out	Balance
31/5/2019			RM1 020.00
2/6/2019	RM280.00		
17/8/2019		RM400.00	

RM1 020 + RM280 – RM400 = ☐

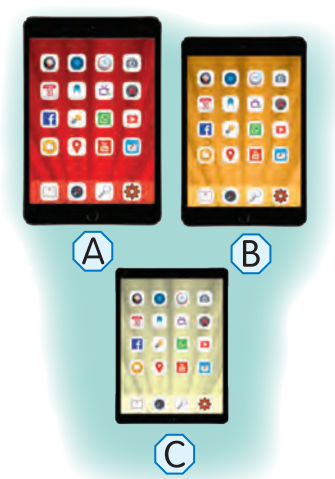
```
        1                       0  13
  RM 1  0 2 0 . 0 0        RM 1̶  3̶ 0 0 . 0 0
+ RM    2 8 0 . 0 0      – RM    4 0 0 . 0 0
-------------------      -------------------
  RM 1  3 0 0 . 0 0        RM    9 0 0 . 0 0
-------------------      -------------------
```

RM1 020 + RM280 – RM400 = **RM900**

Asif's balance is **RM900**.

2

Model	Price
A	RM3 460.80
B	RM680.90 cheaper than model A
C	RM1 027.60 more expensive than model B



Calculate the price for model C based on the table above.

RM3 460.80 – RM680.90 + RM1 027.60 = ☐

```
        13
     2  3̶ 15
     3̶  4̶ 5̶ 9   18 0                  1 1 1
  RM 3  4 6 0 . 8 0        RM 2  7 7 9 . 9 0
– RM    6 8 0 . 9 0      + RM 1  0 2 7 . 6 0
-------------------      -------------------
  RM 2  7 7 9 . 9 0        RM 3  8 0 7 . 5 0
-------------------      -------------------
```

RM3 460.80 – RM680.90 + RM1 027.60 = **RM3 807.50**

The price for model C is **RM3 807.50**.

TEACHER'S NOTES

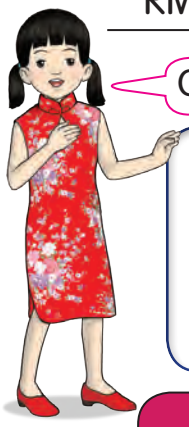
- Expose pupils to the process of incoming cash and outgoing cash using a bank account.
- Emphasise that any price cheaper than the original price needs to be subtracted, and price more expensive than the original price needs to be added.

4.3.1

3 RM7 945.30 + ☐ – RM324 = RM8 895

RM 7 9 4 5 . 3 0		RM 8 8 9 4 10 0
– RM 3 2 4 . 0 0		– RM 7 6 2 1 . 3 0
RM 7 6 2 1 . 3 0		RM 1 2 7 3 . 7 0

7 + ☐ – 3 = 8
7 – 3 + ☐ = 8
4 + ☐ = 8
☐ = 8 – 4



Check the answer using estimation.

Round off to the nearest **hundred**.

RM7 945.30 ⟹ RM7 900
RM324 ⟹ RM300
RM8 895 ⟹ RM8 900

RM 7 9 0 0		RM 8 9 0 0
– RM 3 0 0		– RM 7 6 0 0
RM 7 6 0 0		RM 1 3 0 0

RM1 273.70 is nearer to RM1 300. So, the answer is reasonable.

RM7 945.30 + **RM1 273.70** – RM324 = RM8 895

LET'S TRY

1 Calculate.

a RM909 + RM751 – 75 sen = ☐

b RM2 048.50 – RM563.90 + RM827 = ☐

c RM7 160.35 + 85 sen – RM4 609.80 = ☐

d RM3 420 + ☐ – RM2 089 = RM2 537

2 Add RM5 108.50 to the difference between RM3 168.90 and RM4 508.70.

3 Reduce RM764 from the total amount of RM2 609.80 and RM1 457.35.

KPM

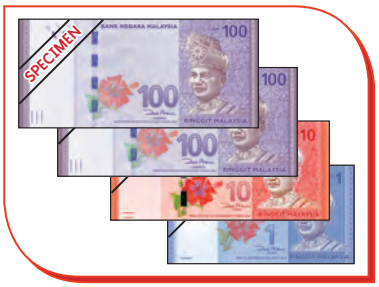
AB 81 TEACHER'S NOTES

- Provide various questions on mixed operations on addition and subtraction of money. For example, use "more" or "less".
- Train pupils to estimate their daily spending.
- Emphasise on calculations involving regrouping.

4.3.1

MULTIPLICATION OF MONEY

1 Calculate the total cost of 2 hampers.



$2 \times RM211 =$ ☐

$$\begin{array}{r} RM\ 2\ 1\ 1 \\ \times \qquad 2 \\ \hline RM\ 4\ 2\ 2 \end{array}$$

$2 \times RM211 =$ **RM422**

The total cost of 2 hampers is **RM422**.

2 $5 \times RM29 =$ ☐

$$\begin{array}{r} \overset{4}{} \\ RM\ \ 2\ 9 \\ \times \qquad 5 \\ \hline RM\ 1\ 4\ 5 \end{array}$$

$5 \times RM29 =$ **RM145**

3 $100 \times RM76 =$ ☐

$1 \times RM76 = RM76$
$10 \times RM76 = RM760$
$100 \times RM76 = RM7\,600$

$100 \times RM76 =$ **RM7 600**

4 $1\,000 \times RM9 =$ ☐

$1 \times RM9 = RM9$
$10 \times RM9 = RM90$
$100 \times RM9 = RM900$
$1\,000 \times RM9 =$?

$1\,000 \times RM9 =$ ☐

5 $10 \times RM148.25 =$ ☐

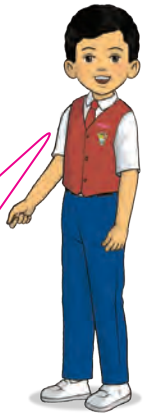
$$\begin{array}{r} RM\ \ 1\ 4\ 8\ .\ 2\ 5 \\ \times \qquad\qquad 1\ 0 \\ \hline RM1\,4\,8\,2\,.\,5\,0 \end{array}$$

$10 \times RM148.25 =$ **RM1 482.50**

TEACHER'S NOTES

- Carry out activities of multiplying money using brochures from supermarket.
- Carry out simulation activities using play money for repeated addition. Relate them to times table.

6 Calculate the price of 3  .



Multiply the sen value.
3 × 30 sen = 90 sen
Then, multiply the ringgit value.
3 × RM82 = RM246

3 × RM82.30 =

	RM	8	2	.	3 0
×					3
	RM	2	4	6	. 9 0

3 × RM82.30 = **RM246.90**

The price of 3  is **RM246.90**.

7 9 × RM317.80 =

		1	7	7		
	RM	3	1	7	.	8 0
×						9
	RM	2	8	6	0	. 2 0

9 × 80 sen = 720 sen
720 sen → 700 sen = RM7
→ 20 sen
720 sen = RM7.20

9 × RM317.80 = **RM2 860.20**

LET'S TRY

1 Calculate.

(a) 4 × RM340 =

(b) 2 × RM506 =

(c) 6 × RM807.15 =

(d) 8 × RM794.20 =

2 Find the total cost.

Item	Quantity	Price per unit	Total cost
	10	RM245.50	
	100	RM68	
	1 000	RM5	

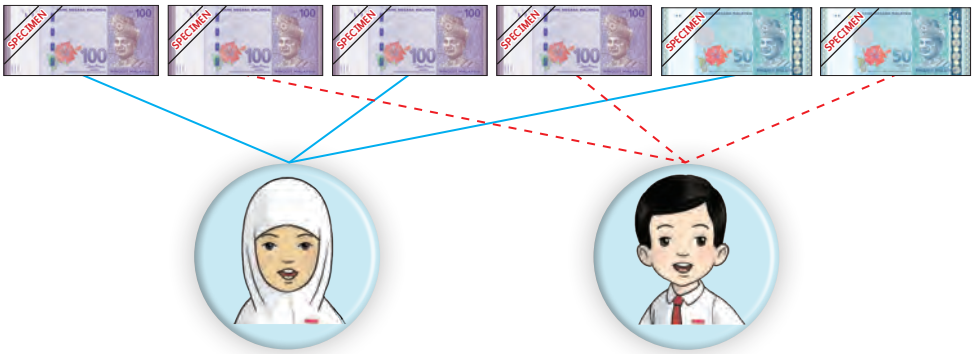
- Encourage pupils to use various methods of calculation.

DIVISION OF MONEY

1 How much money does each person get?

RM500 ÷ 2 = ☐

```
   RM2 5 0
2 ) RM5 0 0
    - 4
      1 0
    - 1 0
        0 0
      -   0
          0
```



RM500 ÷ 2 = **RM250**

Each person gets **RM250**.

2 RM730 ÷ 10 = ☐

```
    RM  7 3
10 ) RM7 3 0
     - 7 0
         3 0
       - 3 0
           0
```

RM730 ÷ 10 = **RM73**

3 RM10 000 ÷ 100 = ☐

```
     RM     1 0 0
100 ) RM1 0  0 0 0
      - 1 0  0
          0 0
        -   0
            0 0
          -   0
              0
```

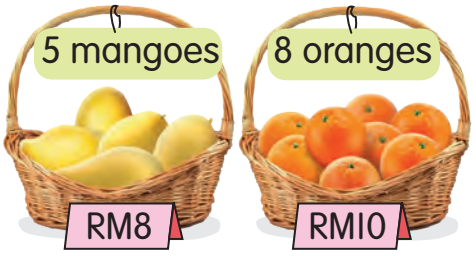
RM10 000 ÷ 100 = **RM100**

TEACHER'S NOTES

- Encourage pupils to divide values of money using receipts or bills from goods purchased.
- Emphasise that the division of money is similar to the division of whole numbers.

4 What is the price of a mango?

RM8 ÷ 5 = ☐



Method 1

```
   1 6 0 sen
5 ) 8 0 0 sen
  − 5
    3 0
  − 3 0
      0 0
    − 0
      0
```

Method 2

```
   RM1 . 6 0
5 ) RM8 . 0 0
  − 5
    3 0
  − 3 0
      0 0
    − 0
      0
```

Calculate the price of an orange.

RM8 ÷ 5 = **RM1.60**

The price of a mango is **RM1.60**.

5 Calculate the price of a remote control car.

RM1 008.40 ÷ 8 = ☐

```
    RM  1 2 6 . 0 5
8 ) RM1 0 0 8 . 4 0
  −   8
      2 0
    − 1 6
        4 8
      − 4 8
          0  4
        −  0
           4 0
         − 4 0
           0
```

Quantity	Price per unit	Total cost
8	☐	RM1 008.40

RM1 008.40 ÷ 8 = **RM126.05**

The price of a remote control car is **RM126.05**.

TEACHER'S NOTES

- Emphasise that the RM symbols and the decimal points, which separates ringgit and sen must be aligned.

6 RM9 020.50 ÷ 10 = ▭

```
        RM   9 0 2 . 0 5
 1 0 ) RM9  0 2 0 . 5 0
          − 9 0
              0 2
            −   0
                2 0
              − 2 0
                  0 5
                −   0
                    5 0
                  − 5 0
                      0
```

RM9 020.50 ÷ 10 = **RM902.05**

7 RM3 650 ÷ 1 000 = ▭

```
            RM        3 . 6 5
 1 000 ) RM3  6 5 0 . 0 0
            − 3  0 0 0
                 6 5 0 0
               − 6 0 0 0
                   5 0 0 0
                 − 5 0 0 0
                         0
```

RM3 650
= RM3 650.00

RM3 650 ÷ 1 000 = **RM3.65**

50 sen ÷ 10 = RM ▭

LET'S TRY

Divide.

a) $2\overline{)\text{RM}2\ 9\ 0}$

b) $4\overline{)\text{RM}6\ \ 1\ 2\ 0}$

c) $7\overline{)\text{RM}3\ 1\ 5}$

d) RM63 ÷ 3 = ▭

e) RM3 105 ÷ 100 = ▭

f) RM10 000 ÷ 1 000 = ▭

g) RM471.60 ÷ 8 = ▭

h) RM5 698.80 ÷ 9 = ▭

i) RM1 024.50 ÷ 10 = ▭

AB 84 TEACHER'S NOTES

- Show the method of dividing by 10, 100 and 1 000 by moving the decimal point to the left.

4.5.1

RECOGNISE CURRENCIES

ASEAN COUNTRIES

MYANMAR

kip

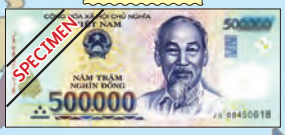
kyat

LAOS

THAILAND

baht

dong



VIETNAM

CAMBODIA

riel

peso

PHILIPPINES

ringgit

BRUNEI

M A L A Y S I A

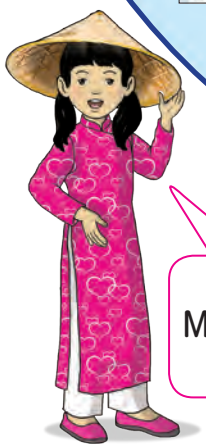
dollar

dollar

SINGAPORE

I N D O N E S I A

rupiah



I'm from Vietnam.
My country's currency is dong.

My country's currency is ringgit.
We're neighbours.

- Carry out activities of reading out currency of ASEAN countries randomly and talk about their characteristics.
- Give exposure about ASEAN countries as the neighbouring countries of Malaysia.

OTHER COUNTRIES

dollar

United States of America

pound

Great Britain

dollar

Australia

riyal

Saudi Arabia

yen

Japan

LET'S TRY

1 What is the currency of the following countries?

a Malaysia b Philippines c Brunei d Myanmar

2 Complete these.

a The currency of Vietnam is ____.

b ____ currency is rupiah.

c Baht is ____ currency.

d ____ is Japanese currency.

e ____ currency is dollar.

3 What is the name of the country and its currency as shown below?

a 

b 

c 

AB 85 TEACHER'S NOTES

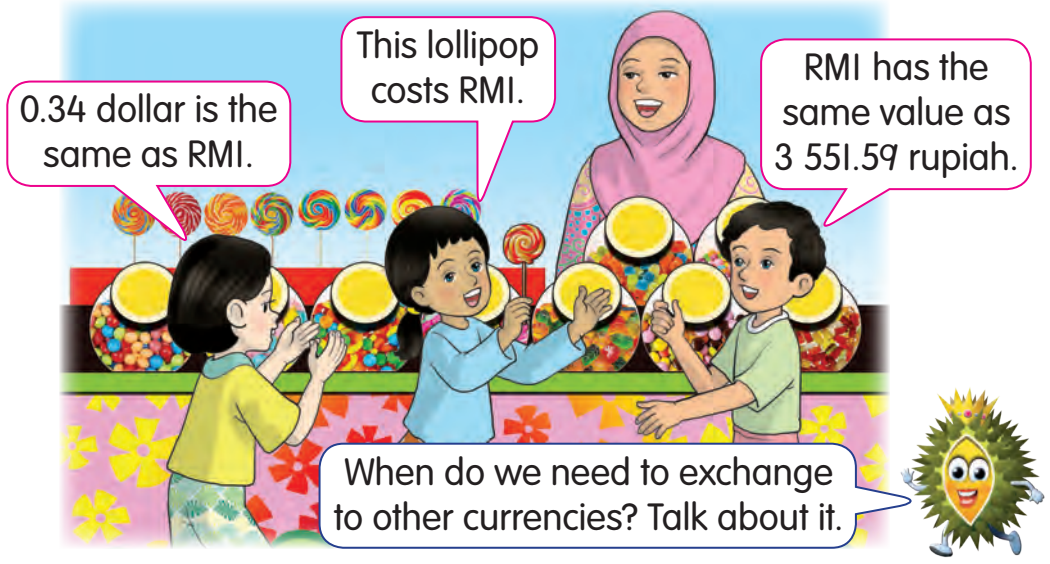
- Provide a variety of questions to reinforce pupils' understanding.
- Introduce the currencies of other countries.

KPM

VALUE OF CURRENCY

Country	Currency	The value of foreign currency compared to RM1
Singapore	dollar	0.34
Thailand	baht	8.22
Indonesia	rupiah	3 551.59
Phillipines	peso	13.18
Brunei	dollar	0.34
Vietnam	dong	5 706.76
Laos	kip	2 083.18
Cambodia	riel	1 003.82
Myanmar	kyat	352.42

Source: https://www.xe.com/currency/myr-malaysian-ringgit, 18/07/2018



LET'S TRY

1 State the value of RM1 in the currencies of these countries.

a Singapore b Thailand c Cambodia

2 If we have RM1, what is its value in the currencies of these countries?

a Brunei b Indonesia c Laos

AB 86 TEACHER'S NOTES

- Guide pupils to understand currency exchange by asking them to share any experience of spending money overseas.

4.6.2

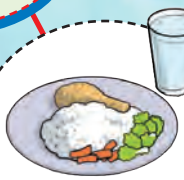
Needs and Wants

Use money for needs first.

Clothes

Needs

Place to live



Food

What happens if needs are not met? Discuss.

Wants

We need to save. Money is very useful.

We must meet our **needs** so that we can continue with our lives. **Wants** improve the quality and comfort of our lives.

TEACHER'S NOTES

- Emphasise that needs are food, place to live, and clothing. Wants are goods, activities, or services that we desire to live a comfortable life.
- Discuss that spending must be based on the money that we own.
- Encourage pupils to be prudent in spending and savings.

Save and Invest Money

Donations to flood victims.

AB 87 TEACHER'S NOTES

- Remind pupils that savings and investments are important in planning their future. Spend wisely to avoid being in debt.
- Explain about investment especially in education.
- Discuss social responsibility such as giving donations to ease the lives of those in need.

FUN PROJECT

Tools/Materials pictures from catalogues, old magazines and the Internet, scissors, glue, manila cards, coloured A4 paper

Participants 2 pupils per group

Method

1. Collect pictures of needs, wants, savings, and investments.
2. Write and paste titles on coloured A4 paper.
3. Paste pictures according to the title.
4. Present your work.

LET'S TRY

1. Give 3 needs and 3 wants in daily life.
2. State 2 advantages of saving money.
3. List things that you can donate.

TEACHER'S NOTES

- Carry out the Fun Project in line with 21st Century Learning, which requires pupils' cooperation.

4.7.1
4.7.2

KPM

CREATE STORIES

1 RM2 450 + RM3 800 = **RM6 250**

Encik Azri and Puan Sim donate **RM2 450** and **RM3 800** respectively to the Love the Environment Fund. Their total donation is **RM6 250**.

2 9 × RM218.50 = **RM1 966.50**

A watch costs **RM218.50**. A trader buys ____ watches. The total cost is ____.

3 RM6 152.40 ÷ 6 = **RM1 025.40**

Father divides the interest from his savings of ____ equally among his ____ children. Each child gets ____.

LET'S TRY

Create stories for the number sentences.

a RM7 618.90 – RM3 427.50 = RM4 191.40

b 8 × RM560 = RM4 480

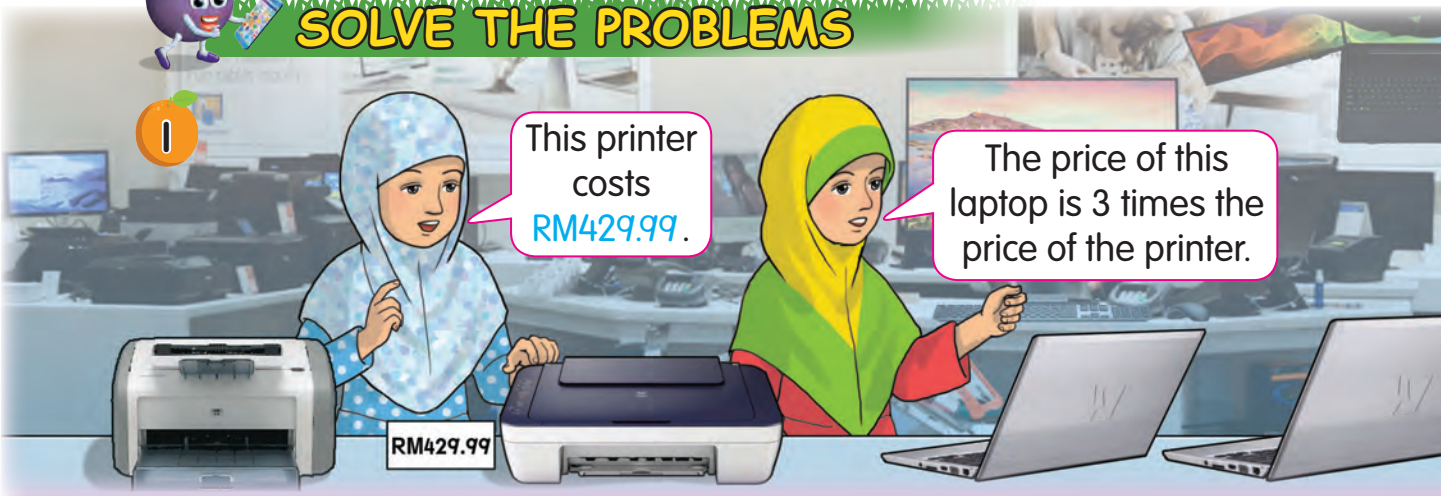
c RM4 293.50 ÷ 5 = RM858.70

AB 88 TEACHER'S NOTES

- Guide pupils to create stories using their own sentences. Relate them to their daily lives.

SOLVE THE PROBLEMS

1



Based on the conversation above, what is the price of the laptop?

Given price of the printer RM429.99

the price of the laptop is 3 times the price of the printer

Find price of laptop

Method Printer [RM429.99]

Laptop [RM429.99] [RM429.99] [RM429.99]

?

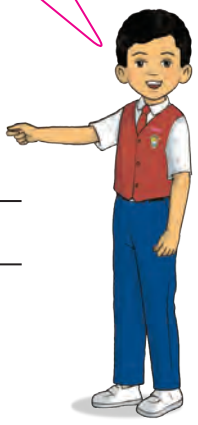
3 × RM429.99 = ☐

$$\begin{array}{rr} & {\scriptstyle 2\ 2\ 2} \\ \text{RM} & 429.99 \\ \times & 3 \\ \hline \text{RM} & 1\,289.97 \end{array}$$

Check

Use repeated addition to check.

$$\begin{array}{rr} & {\scriptstyle 2\ 2\ 2} \\ \text{RM} & 429.99 \\ \text{RM} & 429.99 \\ +\ \text{RM} & 429.99 \\ \hline \text{RM} & 1\,289.97 \end{array}$$



3 × RM429.99 = **RM1 289.97**

The price of the laptop is **RM1 289.97**.

TEACHER'S NOTES

- Guide pupils to solve problems using various methods such as drawing diagrams or creating tables.

2

Item	Price
Camera	RM980
Leather bag	RM275 less than the price of the camera

Zarif's mother buys a camera and a leather bag. Calculate the total cost Zarif's mother has to pay based on the table above.

Given price of camera RM980

the price of leather bag is RM275 less than the price of camera

Find total cost to be paid

Method RM980 – RM275 + RM980 = ▭

$$\begin{array}{lr} & {\scriptstyle 7\ 10} \\ & \text{RM}9\,\not{8}\,\not{0} \\ - & \text{RM}2\,7\,5 \\ \hline & \text{RM}7\,0\,5 \\ \hline \end{array} \qquad \begin{array}{lr} & \text{RM}\ \ 7\,0\,5 \\ + & \text{RM}\ \ 9\,8\,0 \\ \hline & \text{RM}1\ 6\,8\,5 \\ \hline \end{array}$$

RM980 – RM275 + RM980 = **RM1 685**

The total cost Zarif's mother has to pay is **RM1 685**.

Zarif's mother has RM5 000. What is her balance after she bought the camera and the leather bag above?

TEACHER'S NOTES

- Carry out simulation activities to reinforce pupils' understanding in solving problems involving money.
- Discuss various problem-solving strategies such as effective logical reasoning and drawing diagrams.

4.8.2

3 6 of Encik Sham's family members join a group tour to Gold Coast, Australia. The total cost is RM8 268. What is the cost for one person?

Given cost for 6 people is RM8 268

Find cost for one person

Method RM8 268 ÷ 6 = ☐

```
   RM1 378
6 ) RM8 268
    - 6
      2 2
    - 1 8
        4 6
      - 4 2
          4 8
        - 4 8
            0
```

RM8 268 ÷ 6 = **RM1 378**

The cost for one person is **RM1 378**.

LET'S TRY

Solve the problems.

a Zara has savings of RM369.80. Aisya's savings is RM154.10 less than Zara's savings. How much is Aisya's savings?

b Father spends RM4 944 to buy 5 air conditioners of the same type. Calculate the price of one air conditioner.

c Tim's mother pays RM2 000 for a kitchen cabinet that costs RM1 975. What is her balance? State the total number of RM5 and RM10 notes she receives.

SCAN THIS

AB 89-90 TEACHER'S NOTES

- Encourage pupils to estimate their answers before calculating and comparing the actual answers to the estimated ones.

WHO HAS THE MOST MONEY?

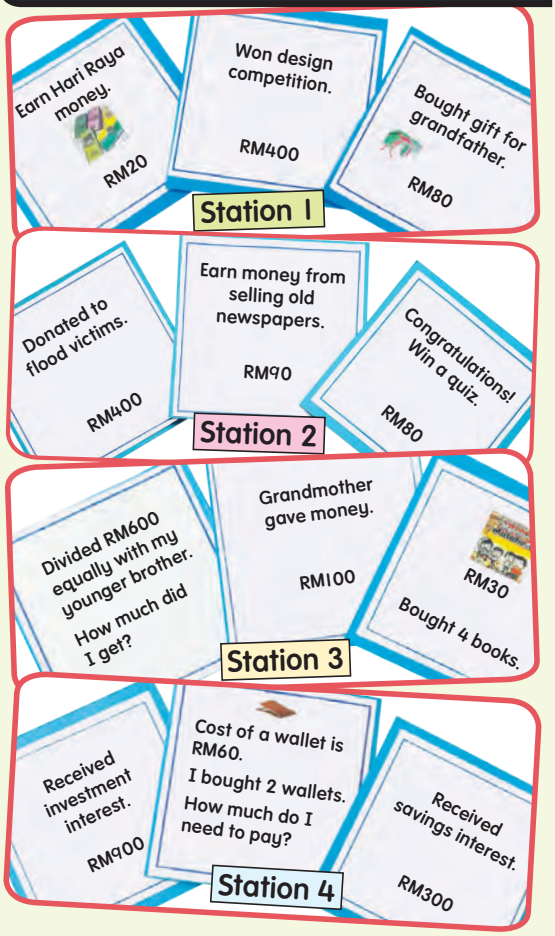
Tools/Materials 4 sets of question cards, play money, count forms

Participants 3 groups, 5 cashiers

Method

1. Each group receives RM500 and a count form.
2. Groups 1, 2 and 3 move to stations 1, 2 and 3.
3. Take a question card. Do calculations.
4. Receive money from the cashier or pay money to the cashier at own stations.
5. Record the money given or received in the count form.
6. The group that has finished moves to station 4 or stations that are empty.
7. Repeat steps 3 until 6. Each group must go to stations 1 until 4.
8. Calculate the final amount of money at station 5.
9. The winner is the group that calculates correctly.

Examples of Question Cards



Example of Count Form

GROUP : ___

COUNT FORM

STATION	CALCULATION	CASH IN	CASH OUT	BALANCE
		RM500		
STATION 1 Hari Raya money	RM500 + RM 20 = RM520	RM20		RM520
STATION 3 Bought 4 books	4 × RM30 = RM120 RM520 − RM120 = RM400		RM120	RM400

- Prepare sufficient play money to carry out this activity.
- Prepare question cards on addition, subtraction, multiplication, and division of money for stations 1 until 4.
- Guide pupils to record cash in and cash out.

4.1, 4.2, 4.3, 4.4, 4.5, 4.8

5 TIME

SEKOLAH KEBANGSAAN IDAMAN SCHOOL CAMP

Time	Activity
8:00 in the morning	Assemble and briefing
8:30 in the morning	Jungle trekking
11:30 in the morning	First-aid activity
1:00 in the afternoon	Lunch and rest
3:15 in the afternoon	Kayaking
9:00 in the evening	Campfire

Let's read out and record each of these activities.

The kayaking activity begins at 3:15 in the afternoon after lunch and rest.

TEACHER'S NOTES

- Guide pupils to read out and record the activities in the pictures.
- Ask pupils to state and obtain information on other activities such as schedule of television programmes and school activities.

5.1.1
5.1.2

KPM

SAY AND RECORD TIME

1

SEKOLAH KEBANGSAAN IDAMAN EXCELLENCE AWARDS DAY	
PROGRAMME	
7:30 in the morning	Arrival of parents and pupils
8:00 in the morning	Arrival of guest of honour
8:15 in the morning	*Doa* recital
8:20 in the morning	Singing of *Negaraku* and school song
8:30 in the morning	Headmaster's speech
8:40 in the morning	Guest of honour's speech
8:50 in the morning	Presentation of awards and certificates
10:20 in the morning	Refreshments
11:00 in the morning	End

Look at this programme.

The event will end at 11:00 in the morning.

Parents and pupils should arrive at 7:30 in the morning.

After that, the arrival of the guest of honour is at 8:00 in the morning.

The presentation of awards and certificates starts at ____ in the morning. Before that, the ____ is at 8:40 in the morning.

TEACHER'S NOTES

- Guide pupils to understand event programmes and ways to get information.
- Use a range of programmes seen or experienced by the pupils such as teacher's day, National Day, and canteen day.

5.1.1
5.1.2

2

SPORTS PROGRAMME	
Event	**Time**
100 metres run	10:25 in the morning
200 metres run	11:05 in the morning
Long jump	11:30 in the morning
Shot-put	12:15 in the afternoon

LET'S TRY

Look at part of the class timetable and answer the questions below. Write the information in sentence form.

Time / Day	7:45-8:15 in the morning	8:15-8:45 in the morning	8:45-9:15 in the morning	9:15-9:45 in the morning	9:45-10:15 in the morning	10:15-10:35 in the morning RECESS
Monday	Assembly	English	English	Mathematics	Mathematics	
Tuesday	Health and Physical Education	Bahasa Melayu	Bahasa Melayu	Science	Science	
Wednesday	Mathematics	Mathematics	Arts	Arts	Arts	

a Assembly starts at ____.

b The Arts class ends at ____.

AB 93 TEACHER'S NOTES

- Emphasise to pupils about time before, during, and after an activity.

5.1.1
5.1.2

KPM

RECOGNISE CALENDAR

2019

The **first month** is **January**. There are **31 days**.

The **first day of May** is **Wednesday**.

The **last day of September** is **Monday**.

There are **12 months** in **1 year**.

TEACHER'S NOTES

- Guide pupils to read out the information on the calendar.
- Use the current year calendar.
- Surf https://www.timeanddate.com

5.2.1
5.3.1

CALENDAR

7 April 2019 Sunday

8 April 2019 Monday

9 April 2019 Tuesday

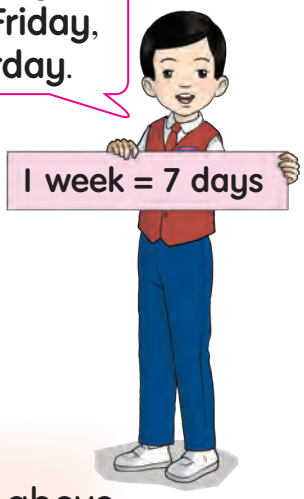
10 April 2019 Wednesday

11 April 2019 Thursday

12 April 2019 Friday

13 April 2019 Saturday

There are **7 days** in **a week**. **Sunday**, **Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, and **Saturday**.



LET'S TRY

Answer the questions based on the 2019 calendar above.

a How many days are there in February?

b What is the last day of December?

AB 94 TEACHER'S NOTES

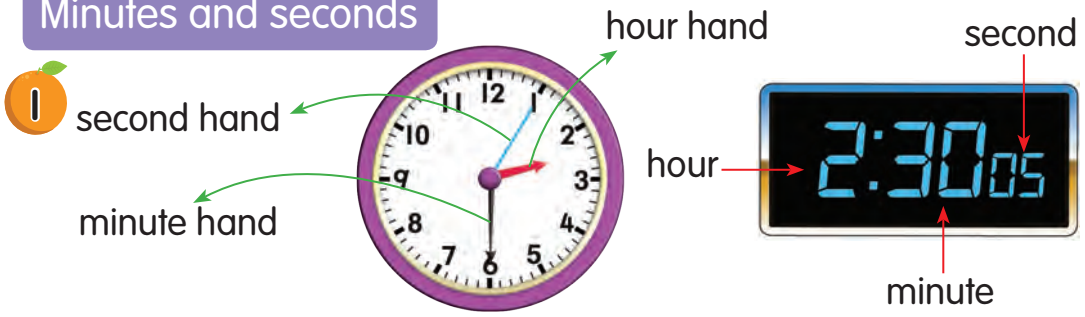
- Discuss important events and dates in the calendar involving pupils such as birthdays, mother's day, and father's day.

5.2.1
5.3.1

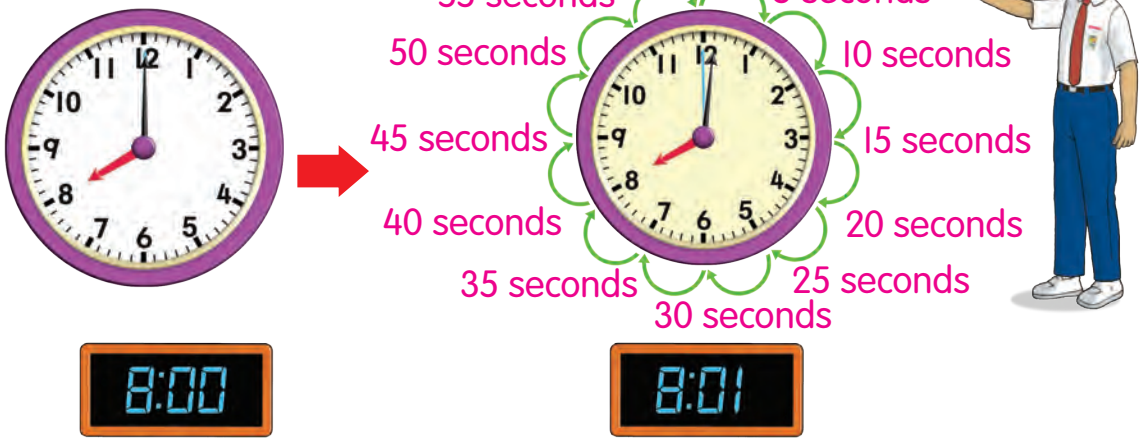
KPM

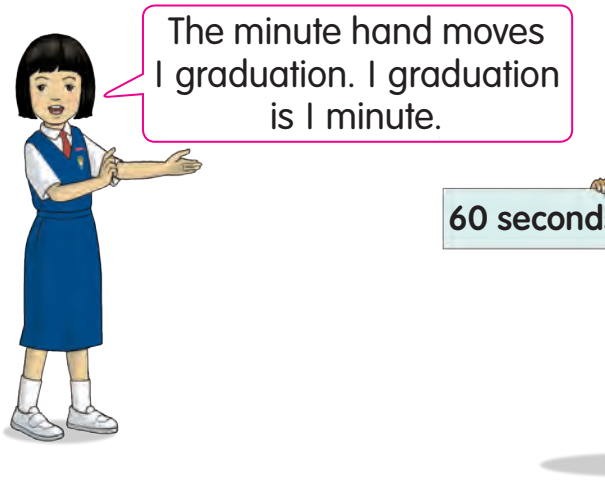
RELATIONSHIP IN TIME

Minutes and seconds



The **second hand** moves **1 complete circle** of **60 seconds**.





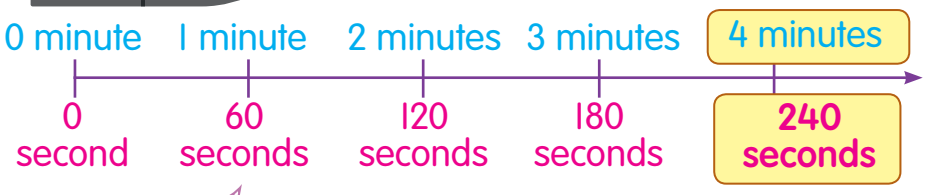
SCAN THIS

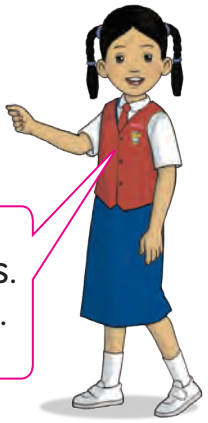
- Use a clock face with second, minute, and hour hands to form questions and answers about minutes and seconds.
- Surf https://www.craftnhome.com/clock-faces.html

2 Mother boiled some eggs for 4 minutes. State the time in seconds.

4 minutes = ☐ seconds

Method 1





Remember,
1 minute = 60 seconds.
Use the 6 times table.
6, 12, 18, 24.

Method 2

4 minutes = 4 × 60 seconds

$$\begin{array}{r} 60 \text{ seconds} \\ \times \quad 4 \\ \hline 240 \text{ seconds} \end{array}$$

4 minutes = **240 seconds**

Mother boiled the eggs for **240 seconds**.

1 hour = ☐ seconds

3 360 seconds = ☐ minutes

60 seconds	120 seconds	180 seconds	240 seconds	300 seconds	**360 seconds**
1 minute	2 minutes	3 minutes	4 minutes	5 minutes	**6 minutes**

360 seconds = **6 minutes**

4 200 seconds = ☐ minutes ☐ seconds

200 seconds = 180 seconds + 20 seconds

= 3 minutes + 20 seconds

= 3 minutes 20 seconds

200 seconds = **3 minutes 20 seconds**

TEACHER'S NOTES

- Surf https://www.mathworksheets4kids.com/time-conversion.php to train pupils in converting time.

Hours and minutes

1 2 hours = ☐ minutes

1 hour	1 hour
60 minutes	60 minutes

2 hours = 1 hour + 1 hour
= 60 minutes + 60 minutes
= 120 minutes

2 hours = **120 minutes**

I hour is 60 minutes.

I do revision for 2 hours everyday. State the time in minutes.

2 180 minutes = ☐ hours

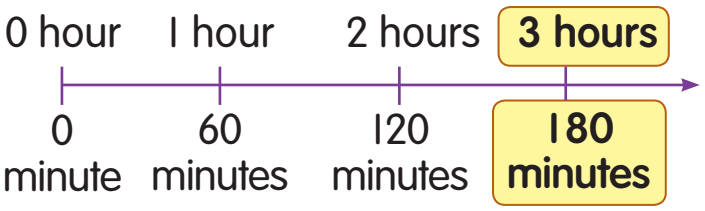
Method 1

60 minutes	60 minutes	60 minutes
1 hour	+ 1 hour	+ 1 hour = 3 hours

Method 2

```
 1 8 0
-  6 0   1 hour
 1 2 0
-  6 0   1 hour   } 3 hours
   6 0
-  6 0   1 hour
     0
```

Method 3



180 minutes = **3 hours**

TEACHER'S NOTES

- Guide pupils to do conversion of units correctly.
- Surf https://www.k5learning.com/worksheets/math/grade-3-convert-time-hours-minutes.pdf

3 140 minutes = ☐ hours ☐ minutes

140 minutes = 120 minutes + 20 minutes

= 2 hours + 20 minutes

= 2 hours 20 minutes

140 minutes = **2 hours 20 minutes**

LET'S TRY

Complete these.

a 2 complete circles of a second hand is ☐ minutes.

b 6 minutes = ☐ seconds

c 480 seconds = ☐ minutes

d 310 seconds = ☐ minutes ☐ seconds

e 5 hours = ☐ minutes

f 120 minutes = ☐ hours

g 290 minutes = ☐ hours ☐ minutes

FUN PROJECT

Tools/Materials 2 sets of question cards, chips (2 colours), pen or pencil

Participants work in pairs

EXAMPLES OF QUESTION CARDS

Method

1 Put a chip on the START box.

2 Play rock-paper-scissors.

3 The winner moves his/her chip one box upwards and answers the question. If the answer is wrong, move the chip one box downwards. The second player then moves his/her chip upwards and answers the question.

4 Repeat steps 2 and 3.

5 The player who reaches the FINISH box first wins.

AB 95 TEACHER'S NOTES

- Prepare two sets of question cards involving the relationship between minutes and seconds, and hours and minutes. Make sure both sets of questions are almost identical and the level of difficulty is the same.
- Guide pupils to answer the questions in the Fun Project.

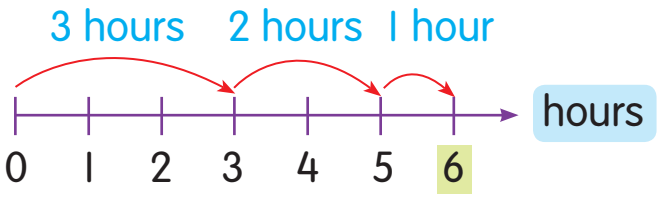
5.2.1
5.2.2

KPM

ADDITION OF TIME

1 What is the total time spent on the visit?

3 hours + 2 hours + 1 hour = ☐ hours

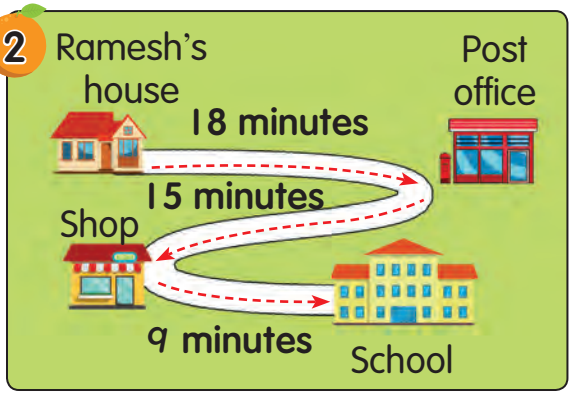


3 hours + 2 hours + 1 hour = **6 hours**

Place visited	Time spent
Bird Park	3 hours
Butterfly Park	2 hours
Crocodile Park	1 hour

The total time spent on the visit is **6 hours**.

2



How long does Ramesh take to go to the shop?

18 minutes + 15 minutes = ☐ minutes

```
  1  8 minutes
+ 1  5 minutes
  3  3 minutes
```

If Ramesh wants to go directly to school, how long will he take?

18 minutes + 15 minutes = **33 minutes**

The time taken for Ramesh to go to the shop is **33 minutes**.

3 14 seconds + 15 seconds + 13 seconds = ☐ seconds

```
  1  4 seconds
  1  5 seconds
+ 1  3 seconds
  4  2 seconds
```

14 seconds + 15 seconds + 13 seconds = **42 seconds**

TEACHER'S NOTES

- Use tables and activities to do addition involving time.
- Surf https://www.mathworksheets4kids.com/time/convert/addition-easyl.pdf

5.4.1 (i)
5.4.1 (ii)
5.4.1 (iii)

4 Add 9 hours 15 minutes and 4 hours 30 minutes.

9 hours 15 minutes + 4 hours 30 minutes = ☐ hours ☐ minutes

	9 hours	15 minutes
+	4 hours	30 minutes
	13 hours	45 minutes

9 hours 15 minutes + 4 hours 30 minutes = **13 hours 45 minutes**

5 12 minutes 35 seconds + 20 minutes 25 seconds + 21 minutes 19 seconds = ☐ minutes ☐ seconds

minutes	seconds
	1
12	35
20	25
+ 21	19
53	79
+ 1	− 60
54	19

79 seconds is more than 60 seconds. Subtract 60 seconds and add 1 minute.

12 minutes 35 seconds
+ 20 minutes 25 seconds
+ 21 minutes 19 seconds
= **54 minutes 19 seconds**

LET'S TRY

Add.

a 9 hours + 8 hours = ☐ hours

b 22 minutes + 30 minutes = ☐ minutes

c 9 seconds + 17 seconds + 24 seconds = ☐ seconds

d 2 minutes 35 seconds + 4 minutes 10 seconds
= ☐ minutes ☐ seconds

e 3 hours 15 minutes + 2 hours 55 minutes
= ☐ hours ☐ minutes

AB 96-97 TEACHER'S NOTES

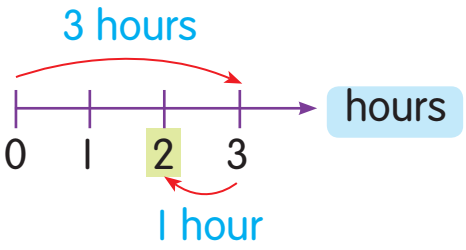
- Guide pupils to add and regroup correctly.
- Provide more questions in question cards or worksheets.

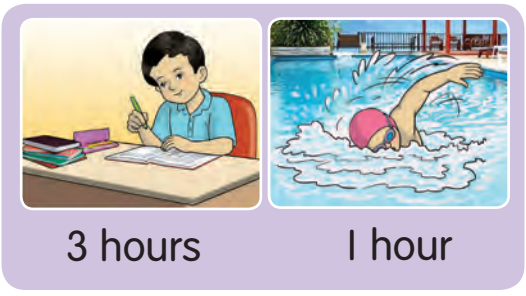
5.4.1 (iv)
5.4.1 (v)

SUBTRACTION OF TIME

1 What is the difference in time between  and  ?

3 hours – 1 hour = ☐ hours





3 hours – 1 hour = **2 hours**

The difference in time between  and  is **2 hours**.

2 How much longer is the time for the dance class than the piano class?

300 minutes – 180 minutes = ☐ minutes

$$\begin{array}{r} {}^{2}\cancel{3}\,{}^{10}\cancel{0}\,0 \text{ minutes} \\ -\ 1\ 8\ 0 \text{ minutes} \\ \hline 1\ 2\ 0 \text{ minutes} \\ \hline \end{array}$$

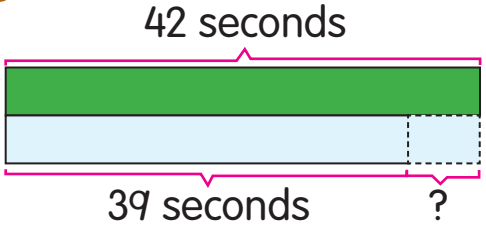
Class	Time
Piano	180 minutes
Dance	300 minutes

300 minutes – 180 minutes = **120 minutes**

The dance class is **120 minutes** longer than the piano class.

3 42 seconds – 39 seconds = ☐ seconds

$$\begin{array}{r} {}^{3}\cancel{4}\,{}^{12}\cancel{2} \text{ seconds} \\ -\ 3\ 9 \text{ seconds} \\ \hline 3 \text{ seconds} \\ \hline \end{array}$$



42 seconds – 39 seconds = **3 seconds**

TEACHER'S NOTES

- Emphasise to pupils to subtract using vertical form correctly.
- Use various methods such as bar models, paper strips, and number lines.

5.5.1 (i)
5.5.1 (ii)
5.5.1 (iii)

4 Subtract 1 hour 15 minutes from 6 hours 40 minutes.

6 hours 40 minutes – 1 hour 15 minutes = ☐ hours ☐ minutes

	6 hours	~~4~~ ~~0~~ minutes (3 10)
–	1 hour	1 5 minutes
	5 hours	2 5 minutes

6 hours 40 minutes – 1 hour 15 minutes = **5 hours 25 minutes**

5 15 minutes – 10 seconds – 12 minutes 30 seconds

= ☐ minutes ☐ seconds

	~~1 5~~ minutes (1 4)	~~0 0~~ seconds (6 0)
–		1 0 seconds
	1 4 minutes	5 0 seconds

	1 4 minutes	5 0 seconds
–	1 2 minutes	3 0 seconds
	2 minutes	2 0 seconds

15 minutes – 10 seconds – 12 minutes 30 seconds

= **2 minutes 20 seconds**

LET'S TRY

Calculate.

a 86 hours – 25 hours = ☐ hours

b 91 minutes – 34 minutes = ☐ minutes

c 75 seconds – 10 seconds – 17 seconds = ☐ seconds

d 4 hours 20 minutes – 15 minutes – 1 hour 50 minutes

= ☐ hours ☐ minutes

e 58 minutes 16 seconds – 17 minutes 12 seconds – 30 seconds

= ☐ minutes ☐ seconds

AB 98-99 TEACHER'S NOTES

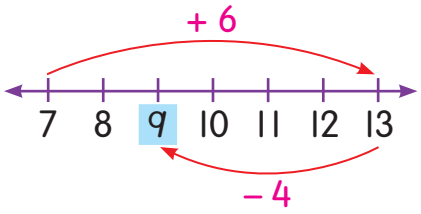
- Guide pupils to regroup from hours to minutes, and from minutes to seconds.

5.5.1 (iv)
5.5.1 (v)

ADDITION AND SUBTRACTION OF TIME

1 7 hours + 6 hours – 4 hours = ☐ hours

$$\begin{array}{r} 7 \text{ hours} \\ +\ 6 \text{ hours} \\ \hline 13 \text{ hours} \end{array} \qquad \begin{array}{r} 13 \text{ hours} \\ -\ 4 \text{ hours} \\ \hline 9 \text{ hours} \end{array}$$



7 hours + 6 hours – 4 hours = **9 hours**

2 40 minutes – 9 minutes + 28 minutes = ☐ minutes

$$\begin{array}{r} \overset{3}{\not 4}\overset{10}{\not 0} \text{ minutes} \\ -\ 9 \text{ minutes} \\ \hline 31 \text{ minutes} \end{array} \qquad \begin{array}{r} 31 \text{ minutes} \\ +\ 28 \text{ minutes} \\ \hline 59 \text{ minutes} \end{array}$$

40 minutes – 9 minutes + 28 minutes = **59 minutes**

3 Subtract 21 seconds from the total of 27 seconds and 43 seconds.

27 seconds + 43 seconds – 21 seconds = ☐ seconds

$$\begin{array}{r} \overset{1}{} \\ 27 \text{ seconds} \\ +\ 43 \text{ seconds} \\ \hline 70 \text{ seconds} \end{array} \qquad \begin{array}{r} \overset{6}{\not 7}\overset{10}{\not 0} \text{ seconds} \\ -\ 21 \text{ seconds} \\ \hline 49 \text{ seconds} \end{array}$$

27 seconds + 43 seconds – 21 seconds = **49 seconds**

TEACHER'S NOTES

- Guide pupils to carry out operations according to the given order.
- Discuss that in operations involving addition and subtraction, the answer is the same whether addition or subtraction is carried out first.

5.6.1 (i)
5.6.1 (ii)
5.6.1 (iii)

4 5 hours + 2 hours 5 minutes – 1 hour 30 minutes
= ☐ hours ☐ minutes

	5	hours	0 0	minutes			
+	2	hours	0 5	minutes			
	7	hours	0 5	minutes			

	~~7~~ 6	hours	~~0~~ 6 5	minutes			
–	1	hour	3 0	minutes			
	5	hours	3 5	minutes			

5 hours + 2 hours 5 minutes – 1 hour 30 minutes
= **5 hours 35 minutes**

5 36 minutes 50 seconds – 17 minutes 40 seconds
+ 20 minutes 13 seconds = ☐ minutes ☐ seconds

	~~3~~ 2	~~6~~ 16	minutes	5 0	seconds		
–	1	7	minutes	4 0	seconds		
	1	9	minutes	1 0	seconds		

	1	9	minutes	1 0	seconds		
+	2	0	minutes	1 3	seconds		
	3	9	minutes	2 3	seconds		

36 minutes 50 seconds – 17 minutes 40 seconds
+ 20 minutes 13 seconds = **39 minutes 23 seconds**

How many seconds are there in 39 minutes 23 seconds?

LET'S TRY

Solve these.

a 11 hours + 5 hours – 10 hours = ☐ hours

b 42 minutes + 19 minutes – 16 minutes = ☐ minutes

c 50 seconds – 23 seconds + 28 seconds = ☐ seconds

d 5 hours 45 minutes + 3 hours 12 minutes – 1 hour 39 minutes
= ☐ hours ☐ minutes

e 7 minutes 8 seconds – 1 minute 23 seconds
+ 6 minutes 5 seconds = ☐ minutes ☐ seconds

AB 100 TEACHER'S NOTES

- Guide pupils to convert units when adding or subtracting time.
- Surf https://www.onlinemathlearning.com/adding-time.html

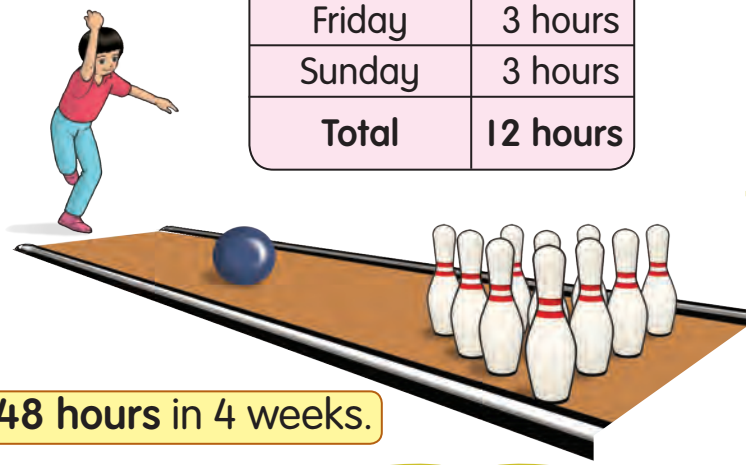
5.6.1 (iv)
5.6.1 (v)

KPM

MULTIPLICATION OF TIME

1 The table shows the time Hilmi practises bowling in a week. How many hours does Hilmi practise in 4 weeks?

Day	Time
Monday	3 hours
Wednesday	3 hours
Friday	3 hours
Sunday	3 hours
Total	**12 hours**



4 × 12 hours = ☐ hours

$$\begin{array}{r} 12 \text{ hours} \\ \times \quad 4 \\ \hline 48 \text{ hours} \\ \hline \end{array}$$

4 × 12 hours = **48 hours**

Hilmi practises bowling for **48 hours** in 4 weeks.

2 Multiply 6 by 53 minutes.

6 × 53 minutes = ☐ minutes

Method 1

$$\begin{array}{r} {\scriptstyle 1} \\ 53 \text{ minutes} \\ \times \quad 6 \\ \hline 318 \text{ minutes} \\ \hline \end{array}$$

Method 2

5	3	×
3 / 0	1 / 8	6

3 1 8

6 × 53 minutes = **318 minutes**

3 5 × 128 seconds = ☐ seconds

$$\begin{array}{r} {\scriptstyle 1\ 4} \\ 128 \text{ seconds} \\ \times \quad 5 \\ \hline 640 \text{ seconds} \\ \hline \end{array}$$

5 × 128 seconds = **640 seconds**

Is 128 seconds × 5 equal to 5 × 128 seconds? Discuss.

TEACHER'S NOTES

- Go over the 2, 3, 4, 5, 6, 7, 8 and 9 times tables to help pupils multiply easily.
- Guide pupils to use the lattice method to multiply.

5.7.1 (i)
5.7.1 (ii)
5.7.1 (iii)

4 2 × 3 hours 10 minutes = ☐ hours ☐ minutes

Method 1

3 hours 10 minutes
× 2
6 hours 20 minutes

Method 2

3 hours 10 minutes
+ 3 hours 10 minutes
6 hours 20 minutes

2 × 3 hours 10 minutes = **6 hours 20 minutes**

5 3 × 9 minutes 12 seconds = ☐ minutes ☐ seconds

9 minutes 12 seconds
× 3
27 minutes 36 seconds

3 × 9 minutes 12 seconds = **27 minutes 36 seconds**

LET'S TRY

Multiply.

a 60 seconds × 7 = ☐

b 15 minutes × 9 = ☐

c 23 hours × 8 = ☐

d 8 hours 24 minutes × 2 = ☐

e 7 minutes 10 seconds × 4 = ☐

f 2 × 48 hours = ☐ hours

g 6 × 112 seconds = ☐ seconds

h 5 × 26 hours 5 minutes = ☐ hours ☐ minutes

i 3 × 10 minutes 16 seconds = ☐ minutes ☐ seconds

AB 101 TEACHER'S NOTES

- Do other suitable methods of multiplication such as repeated addition and using a timeline.

5.7.1 (iv)
5.7.1 (v)

DIVISION OF TIME

1 How long does Danial ride his bike in a week?

28 hours ÷ 2 = ☐ hours

$$\begin{array}{r} 14 \text{ hours} \\ 2\overline{)\,28 \text{ hours}} \\ -\,2 \\ \hline 08 \\ -\,8 \\ \hline 0 \end{array}$$

28 hours ÷ 2 = **14 hours**

Danial rides his bike for **14 hours** in a week.

2 128 minutes ÷ 8 = ☐ minutes

$$\begin{array}{r} 16 \text{ minutes} \\ 8\overline{)\,128 \text{ minutes}} \\ -\,8 \\ \hline 48 \\ -\,48 \\ \hline 0 \end{array}$$

128 minutes ÷ 8 = **16 minutes**

$$\begin{array}{r} {\scriptstyle 4} \\ 16 \text{ minutes} \\ \times\quad 8 \\ \hline 128 \text{ minutes} \end{array}$$

3 364 seconds ÷ 7 = ☐ seconds

$$\begin{array}{r} 52 \text{ seconds} \\ 7\overline{)\,364 \text{ seconds}} \\ -\,35 \\ \hline 14 \\ -\,14 \\ \hline 0 \end{array}$$

364 seconds ÷ 7 = **52 seconds**

TEACHER'S NOTES

- Remind pupils about the long division method and revise the 2, 3, 4, 5, 6, 7, 8 and 9 times tables.

5.8.1 (i)
5.8.1 (ii)
5.8.1 (iii)

4 Calculate the time Puan Alia does gardening every day.

5 hours 45 minutes ÷ 5
= ☐ hours ☐ minutes

$$\begin{array}{r|l} & \text{1 hour} \quad \text{9 minutes} \\ 5 & \text{5 hours} \quad \text{45 minutes} \\ & -5 \quad\quad -45 \\ & \overline{0} \quad\quad \overline{0} \end{array}$$

5 hours 45 minutes ÷ 5 = **1 hour 9 minutes**

Puan Alia does gardening for **1 hour 9 minutes** every day.

5 56 minutes 32 seconds ÷ 4 = ☐ minutes ☐ seconds

$$\begin{array}{r|l} & \text{14 minutes} \quad \text{8 seconds} \\ 4 & \text{56 minutes} \quad \text{32 seconds} \\ & -4 \quad\quad -32 \\ & \overline{16} \quad\quad \overline{0} \\ & -16 \\ & \overline{0} \end{array}$$

56 minutes 32 seconds ÷ 4 = **14 minutes 8 seconds**

LET'S TRY

Divide.

a $9\overline{)108}$ hours

b $6\overline{)174}$ minutes

c $5\overline{)265}$ seconds

d $3\overline{)24}$ hours 57 minutes

e $8\overline{)16}$ minutes 8 seconds

f 72 hours ÷ 4 = ☐ hours

g 210 minutes ÷ 7 = ☐ minutes

h 38 hours 54 minutes ÷ 2 = ☐ hours ☐ minutes

AB 102 TEACHER'S NOTES

- Guide pupils to divide time using repeated subtraction.
- Use appropriate situations to create questions for pupils.

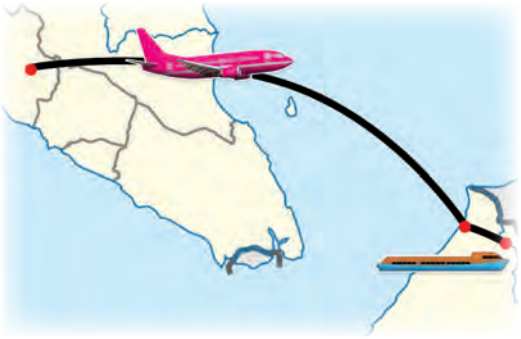
5.8.1 (iv)
5.8.1 (v)

KPM

CREATE STORIES

1 2 hours 20 minutes + 2 hours 30 minutes = **4 hours 50 minutes**

Sali flew on a plane from Kuala Lumpur to Miri for **2 hours 20 minutes**. Then, she rode an express boat for **2 hours 30 minutes** to Marudi town. The total time taken was **4 hours 50 minutes**.



2 3 × 3 hours 15 minutes = **9 hours 45 minutes**

Encik Azhar can complete a batik pattern within **3 hours 15 minutes**. He needs **9 hours 45 minutes** to prepare ____ batik patterns.

3 10 hours 50 minutes ÷ 5 = **2 hours 10 minutes**

Siew May practises piano for ____ hours ____ minutes for ____ days. She practises for ____ hours ____ minutes in a day.

LET'S TRY

Create stories based on the number sentences.

a 4 hours 20 minutes – 55 minutes = 3 hours 25 minutes

b 11 hours + 4 hours – 9 hours = 6 hours

AB 103 TEACHER'S NOTES

- Guide pupils to create stories using their own words.
- In groups, carry out a competition of creating stories using number sentences.

SOLVE THE PROBLEMS

1

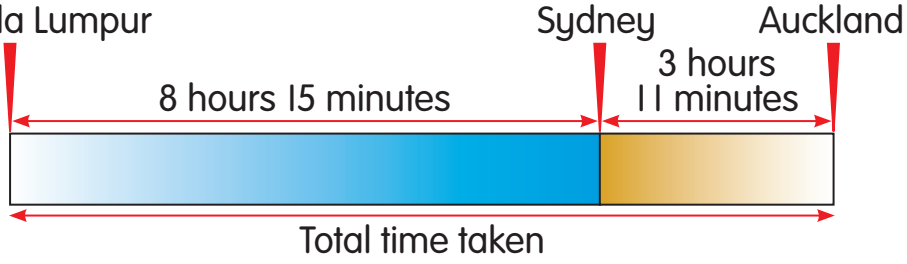
Siva is on a holiday in Auckland, New Zealand, with his family. They took a flight via Sydney, Australia. Calculate the total time taken from Kuala Lumpur to Auckland.

Given Kuala Lumpur to Sydney **8 hours 15 minutes**

Sydney to Auckland **3 hours 11 minutes**

Find total time taken

Method

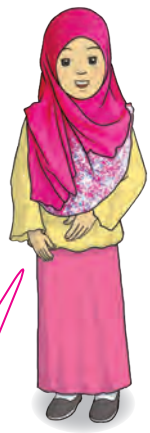


8 hours 15 minutes + 3 hours 11 minutes = ☐

$$\begin{array}{r} 8 \text{ hours } 15 \text{ minutes} \\ +\ 3 \text{ hours } 11 \text{ minutes} \\ \hline 11 \text{ hours } 26 \text{ minutes} \end{array}$$

8 hours 15 minutes + 3 hours 11 minutes
= **11 hours 26 minutes**

The total time taken was **11 hours 26 minutes**.



What was the difference in the time taken from Kuala Lumpur to Sydney and from Sydney to Auckland?

TEACHER'S NOTES

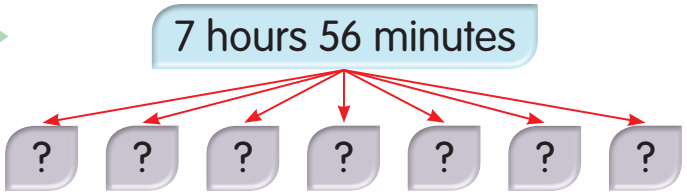
- Ask pupils to comprehend questions and record important information.
- Guide pupils to use models, tables, manipulatives, and reasoning to solve daily problems.

2 Hasni's father takes 7 hours 56 minutes to stamp 7 pieces of batik cloth of the same pattern. What is the time taken to stamp one piece of batik cloth?

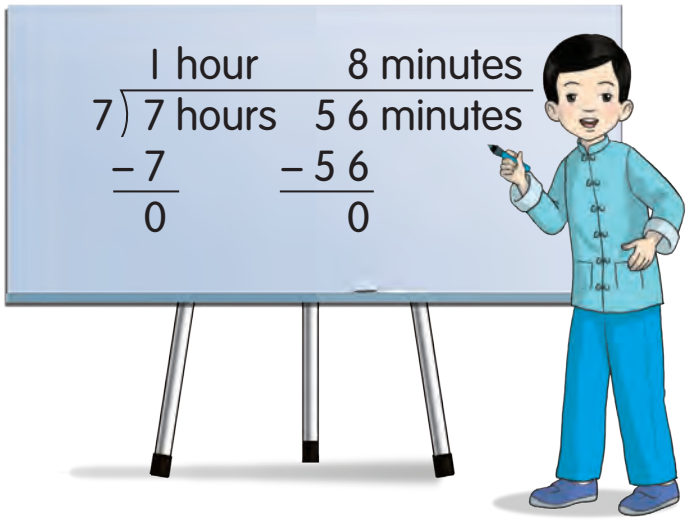
Given time taken to stamp 7 pieces of batik cloth is **7 hours 56 minutes**

Find time taken to stamp one piece of batik cloth

Method



7 hours 56 minutes ÷ 7 = ☐



7 hours 56 minutes ÷ 7 = **1 hour 8 minutes**

The time taken to stamp one piece of batik cloth is **1 hour 8 minutes**.

How many pieces of batik cloth can be completed in 204 minutes?

TEACHER'S NOTES

- Ask pupils to check their answers by multiplication or using a calculator.

3 The time taken to bake a fruit cake is 48 minutes. How long does it take to bake 4 similar fruit cakes? Give the answer in hours and minutes.

Method 4 × 48 minutes
= ☐ hours ☐ minutes

Multiply 48 minutes by 4. Then convert the answer to hours and minutes.

$$\begin{array}{r} {\scriptstyle 3}\\ 48 \text{ minutes} \\ \times \quad 4 \\ \hline 192 \text{ minutes} \end{array}$$

192 minutes = 180 minutes + 12 minutes
= 3 hours + 12 minutes
= 3 hours 12 minutes

4 × 48 minutes = **3 hours 12 minutes**

The time taken to bake 4 similar fruit cakes is **3 hours 12 minutes**.

LET'S TRY

Solve the problems.

a Look at the picture. Calculate the difference in time taken by Dashini to read a storybook and watch television.

b The time taken for a car to travel non-stop from Johor Bahru to Kuala Lumpur is 5 hours 30 minutes. If Mr Tan stops at Pagoh for 20 minutes and at Ayer Keroh for 15 minutes, what is his total travelling time?

c Haikal plays badminton 6 days a week and the total time is 720 minutes. How many minutes does he play badminton every day?

AB 104 TEACHER'S NOTES

- Provide more problem solving exercises of various levels of difficulty.

FUN TIME

Let's sing along.

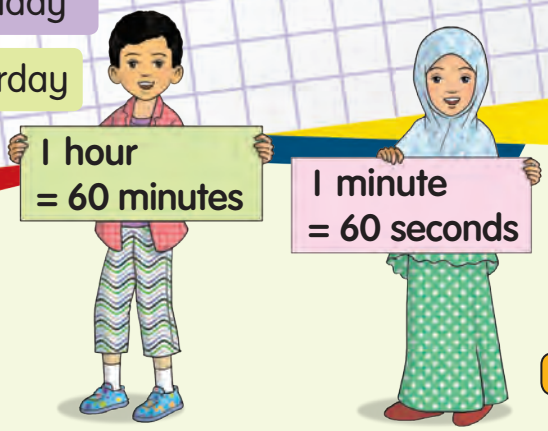
One year – how many months?
One year – how many months?
Let's all remember that,
One year is twelve months.

One week – how many days?
One week – how many days?
Let's all remember that,
One week is seven days.

One minute – how many seconds?
One minute – how many seconds?
Let's all remember that,
One minute is sixty seconds.

One hour – how many minutes?
One hour – how many minutes?
Let's all remember that,
One hour is sixty minutes.

Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday



SCAN THIS

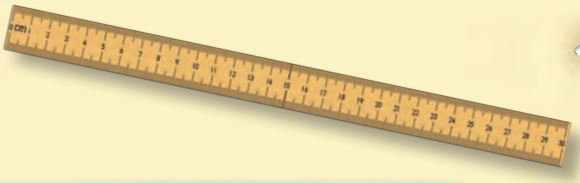
AB 105-106 TEACHER'S NOTES

- Guide pupils to sing the song to the melody of "The Farmer in the Dell".
- Divide pupils into two groups. Groups take turns to ask and answer questions until the last verse.

5.2.1
5.2.2

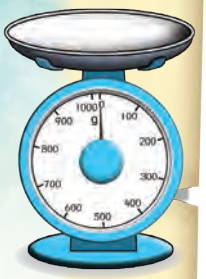
6 LENGTH, MASS, AND VOLUME OF LIQUID

Come rhyme with me.



Ride along on my scooter
My Modenas Elegan I call her
From centimetre to metre
Divide one hundred for the answer.

Text a wish in telegram
Happy Mother's Day, mother
From kilogram to gram
Multiply one thousand for the answer.



Every pupil must remember
The largest planet is Jupiter
From litre to millilitre
Multiply one thousand for the answer.

SCAN THIS

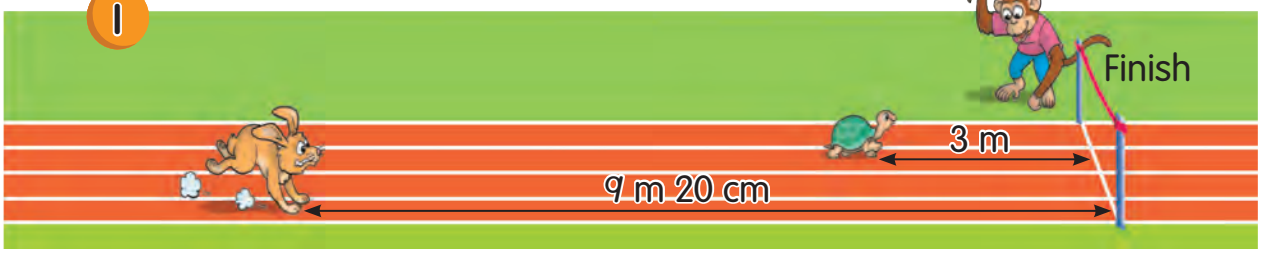
TEACHER'S NOTES

- Guide pupils through the rhyme above.
- Instil values such as appreciating mother's deeds and love our country.
- Introduce other measuring tools.

6.1.1
6.2.1
6.3.1

CONVERT UNITS OF LENGTH

1



a How many centimetres before the tortoise reaches the finishing line?

To convert m to cm, multiply by 100.

3 m = ☐ cm

Method 1

3 m = 3 × 100 cm
= 300 cm

I m is equal to 100 cm.

I m = 100 cm

Method 2

100 cm
100 cm
+ 100 cm
300 cm

3 m = **300 cm**

It is **300 cm** before the tortoise reaches the finishing line.

b Convert 9 m 20 cm to cm.

9 m 20 cm = ☐ cm

9 m 20 cm → 9 m = 900 cm
→ 20 cm

9 m 20 cm = 900 cm + 20 cm
= 920 cm

9 m 20 cm = **920 cm**

How do you convert 9 m to 900 cm?

TEACHER'S NOTES

- Carry out simulation activities to convert units of metre to centimetre using objects or flash cards.
- Emphasise to pupils to multiply by 100 when converting m to cm.
- Surf https://www.homeschoolmath.net/worksheets/measurements/PDFs/

2 What is the length of this rope in m?

400 cm = ☐ m

400 cm = (400 ÷ 100) m
= 4 m

400 cm = **4 m**

The length of the rope is **4 m**.

3

Convert the height of the orangutan to m and cm.

150 cm = ☐ m ☐ cm

150 cm = 100 cm + 50 cm
= 1 m + 50 cm
= 1 m 50 cm

150 cm = **1 m 50 cm**

4 What is the height and width of the picture frame in m and cm?

210 cm = ☐ m ☐ cm

106 cm = ☐ m ☐ cm

LET'S TRY

Convert the following units.

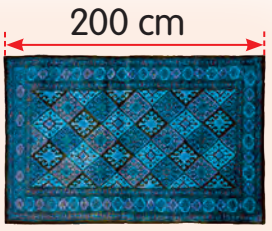
a

☐ cm

b

☐ cm

c



☐ m

d 7 m 23 cm = ☐ cm

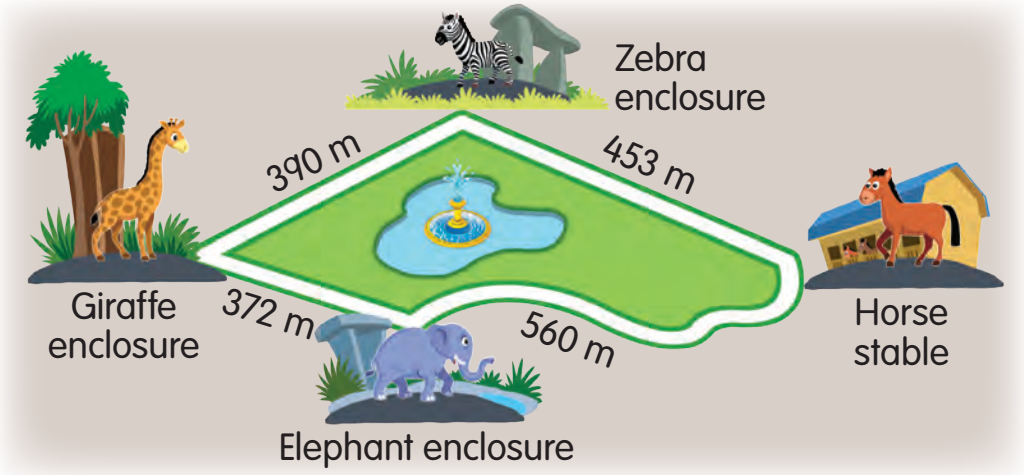
e 808 cm = ☐ m ☐ cm

AB 107 TEACHER'S NOTES

- Guide pupils to convert cm to m by dividing by 100.
- Surf http://www.metric-conversions.org

ADDITION OF LENGTH

1



Find the distance from the horse stable to the giraffe enclosure pass the zebra enclosure.

453 m + 390 m = ☐ m

```
  1
  4 5 3 m
+ 3 9 0 m
-------
  8 4 3 m
-------
```

453 m + 390 m = **843 m**

The distance from the horse stable to the giraffe enclosure pass the zebra enclosure is **843 m**.

2 112 cm + 365 cm + 78 cm = ☐ cm

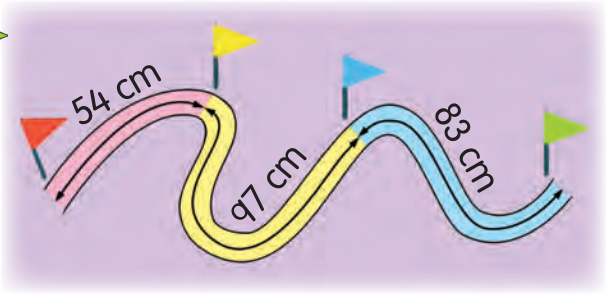
```
  1 1
  1 1 2 cm
  3 6 5 cm
+   7 8 cm
---------
  5 5 5 cm
---------
```

112 cm + 365 cm + 78 cm = **555 cm**

TEACHER'S NOTES

- Train pupils to add units of length by providing situations involving length, height, and distance.
- Provide various questions based on the diagram above.

3 What is the distance from to ?
Write your answer in m and cm.



54 cm + 97 cm + 83 cm
= ☐ m ☐ cm

$$\begin{array}{r} {\scriptstyle 1} \\ 54\text{ cm} \\ 97\text{ cm} \\ +\ 83\text{ cm} \\ \hline 234\text{ cm} \end{array}$$

234 cm = 200 cm + 34 cm
= 2 m + 34 cm
= 2 m 34 cm

54 cm + 97 cm + 83 cm = **2 m 34 cm**

The distance from to is **2 m 34 cm**.

4 87 cm + 1 m 64 cm + 1 m 32 cm = ☐ m ☐ cm

$$\begin{array}{rr} & {\scriptstyle 1} \\ & 87\text{ cm} \\ 1\text{ m} & 64\text{ cm} \\ +\ 1\text{ m} & 32\text{ cm} \\ \hline 2\text{ m} & 183\text{ cm} \\ +\ 1 & -\ 100 \\ \hline 3\text{ m} & 83\text{ cm} \end{array}$$

183 cm
100 cm 83 cm
100 cm = 1 m

87 cm + 1 m 64 cm + 1 m 32 cm = **3 m 83 cm**

LET'S TRY

1 Add.

a 45 m + 109 m = ☐ m

b 38 cm + 62 cm = ☐ cm

c 84 cm + 79 cm + 105 cm = ☐ m ☐ cm

d 30 m 27 cm + 11 m 36 cm = ☐ m ☐ cm

2 Add 37 m 85 cm and 2 m 15 cm. Give the answer in cm.

AB 108 TEACHER'S NOTES

- Guide pupils to regroup from centimetre to metre.
- Emphasise that if the total units of centimetre exceeds 100, convert 100 cm to 1 m.

SUBTRACTION OF LENGTH

1

Mount Murud, Sarawak
2 423 m

Mount Ledang, Johor
1 276 m

What is the difference in height between Mount Murud and Mount Ledang?

2 423 m – 1 276 m = ☐ m

$$\begin{array}{r} {\scriptstyle 1\,1} \\ {\scriptstyle 3\;\not{1}\,13} \\ 2\;\not{4}\not{2}\not{3}\text{ m} \\ -\;1\;2\,7\,6\text{ m} \\ \hline 1\;1\,4\,7\text{ m} \\ \hline \end{array}$$

2 423 m – 1 276 m = **1 147 m**

The difference in height between Mount Murud and Mount Ledang is **1 147 m**.

2 How much longer is Perodua Bezza than Perodua Axia?

415 cm – 364 cm = ☐ cm

$$\begin{array}{r} {\scriptstyle 3\;11} \\ \not{4}\,\not{1}\,5\text{ cm} \\ -\;3\,6\,4\text{ cm} \\ \hline 5\,1\text{ cm} \\ \hline \end{array}$$

415 cm – 364 cm = **51 cm**

Perodua Bezza is **51 cm** longer than Perodua Axia.

364 cm
Perodua Axia

415 cm
Perodua Bezza

TEACHER'S NOTES

- Use information about the height of buildings, distance of places, depth of oceans or straits to find the differences.

6.1.3

3 Subtract 23 m 77 cm from 30 m 58 cm.

30 m 58 cm – 23 m 77 cm = ☐ m ☐ cm

	2 9	15 8
	~~3~~ ~~0~~ m	~~5~~ ~~8~~ cm
–	2 3 m	7 7 cm
	6 m	8 1 cm

58 cm cannot subtract 77 cm.
So, convert 1 m to 100 cm.
100 cm + 58 cm = 158 cm

30 m 58 cm – 23 m 77 cm = **6 m 81 cm**

4 6 m – 3 m 24 cm – 96 cm = ☐ cm

Convert 6 m to 600 cm.
Convert 3 m 24 cm to cm.
3 m 24 cm = 300 cm + 24 cm
= 324 cm

	9	
	5 ~~10~~ 10	
	~~6~~ ~~0~~ ~~0~~ cm	
–	3 2 4 cm	
	2 7 6 cm	

	1 17	
	~~2~~ ~~7~~ 6 cm	
–	9 6 cm	
	1 8 0 cm	

Discuss other methods to get the answer.

6 m – 3 m 24 cm – 96 cm = **180 cm**

LET'S TRY

1 Subtract.

(a) 421 m – 157 m = ☐ m

(b) 930 cm – 485 cm = ☐ cm

(c) 13 m 78 cm – 6 m 90 cm = ☐ m ☐ cm

(d) 50 m – 24 m 70 cm – 89 cm = ☐ cm

2 Subtract 3 m 16 cm from 10 m. Give the answer in cm.

3 Find the difference between 90 m 5 cm and 72 m 80 cm.

AB 109 TEACHER'S NOTES

- Guide pupils to regroup from metre to centimetre.
- Carry out activities to compare the height or length between two objects found in the classroom, and find the difference.

MULTIPLICATION OF LENGTH

1

What is the distance from the first pole to the fifth pole?

$4 \times 15\text{ m} = \square\text{ m}$

$$\begin{array}{r} {\scriptstyle 2} \\ 15\text{ m} \\ \times\quad 4 \\ \hline 60\text{ m} \end{array}$$

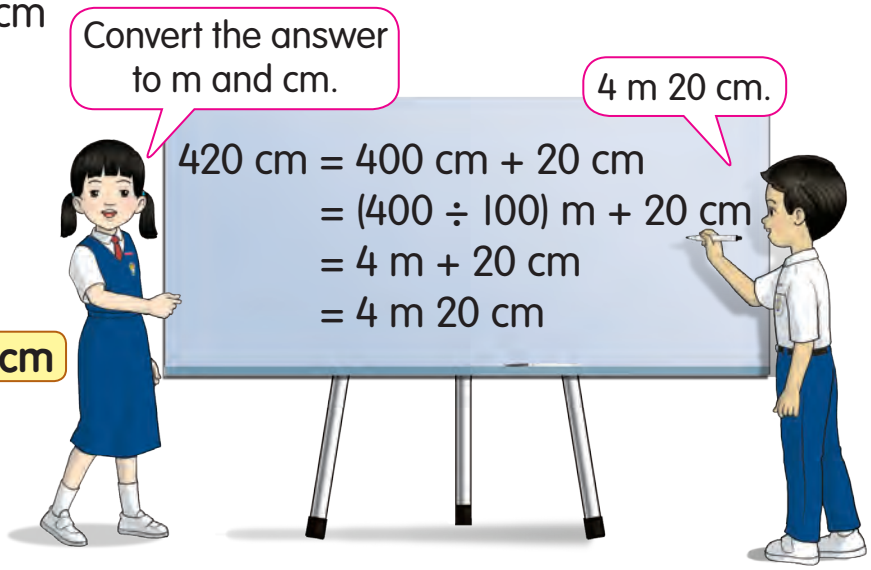
$4 \times 15\text{ m} =$ **60 m**

The distance from the first pole to the fifth pole is **60 m**.

2 $5 \times 84\text{ cm} = \square\text{ cm}$

$$\begin{array}{r} {\scriptstyle 2} \\ 84\text{ cm} \\ \times\quad 5 \\ \hline 420\text{ cm} \end{array}$$

$5 \times 84\text{ cm} =$ **420 cm**

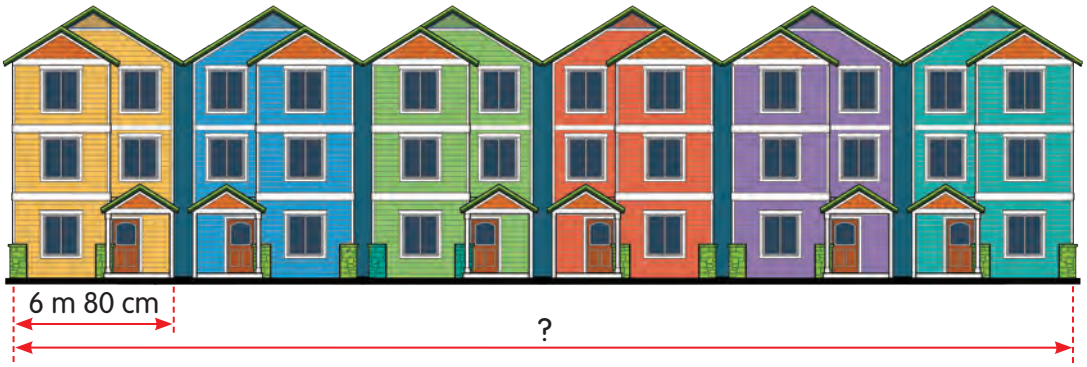


TEACHER'S NOTES

- Do multiplication on units of length through simulation activities or given pictures.

6.1.4

3



a Find the length of a row of terrace houses.

6 × 6 m 80 cm = ☐ m ☐ cm

	6 m	80 cm
×		6
	36 m	480 cm
+	4	−400
	40 m	80 cm

6 × 6 m 80 cm = **40 m 80 cm**

The length of a row of terrace houses is **40 m 80 cm**.

b 40 m 80 cm = ☐ cm

40 m 80 cm = 40 m + 80 cm
= (40 × 100 cm) + 80 cm
= 4 000 cm + 80 cm
= 4 080 cm

40 m 80 cm = **4 080 cm**

LET'S TRY

Multiply.

a
	27 m
×	4
	☐

b
	108 cm
×	9
	☐

c
	6 m 34 cm
×	3
	☐

d 5 × 18 m = ☐ cm

e 6 × 9 m 25 cm = ☐ m ☐ cm

AB 110 TEACHER'S NOTES

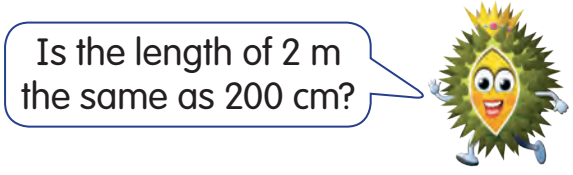
- Train pupils to multiply using repeated addition, number lines, and times tables.
- Explain to pupils the method of regrouping centimetre to metre.

DIVISION OF LENGTH

1 The overall length of the coaches of a train is 14 m.
Find the length of one coach.

14 m ÷ 7 = ☐ m

$$\begin{array}{r} 2\ \text{m} \\ 7\overline{)\ 14\ \text{m}} \\ -\ 14 \\ \hline 0 \end{array}$$



14 m ÷ 7 = **2 m**

The length of one coach of a train is **2 m**.

2 760 cm ÷ 4 = ☐ cm

$$\begin{array}{r} 190\ \text{cm} \\ 4\overline{)\ 760\ \text{cm}} \\ -\ 4 \\ \hline 36 \\ -\ 36 \\ \hline 00 \\ -\ 0 \\ \hline 0 \end{array}$$

760 cm ÷ 4 = **190 cm**

3 Divide 1 040 cm by 5.

1 040 cm ÷ 5 = ☐ cm

$$\begin{array}{r} \square\square\square\ \text{cm} \\ 5\overline{)\ 1\ 040\ \text{cm}} \end{array}$$

- Explain the concept of division involving length or distance through simulation activities.

4 The length of a horse stable is 17 m 40 cm. What is the length of each section of the stable?

17 m 40 cm ÷ 3 = ☐ m ☐ cm

$$\begin{array}{r} 5\text{ m}\ \ 80\text{ cm} \\ 3\overline{)\,17\text{ m}\ \ 40\text{ cm}} \\ -15\quad +200 \\ \hline 2\quad\ \ 240 \\ -24 \\ \hline 00 \\ -\ \ 0 \\ \hline 0 \end{array}$$

17 m 40 cm ÷ 3 = **5 m 80 cm**

The length of each section of the horse stable is **5 m 80 cm**.

5 960 cm ÷ 8 = ☐ m ☐ cm

$$\begin{array}{r} 120\text{ cm} \\ 8\overline{)\,960\text{ cm}} \\ -8 \\ \hline 16 \\ -16 \\ \hline 00 \\ -\ \ 0 \\ \hline 0 \end{array}$$

120 cm = 100 cm + 20 cm
= 1 m + 20 cm
= 1 m 20 cm

960 cm ÷ 8 = **1 m 20 cm**

LET'S TRY

1 Divide.

a $4\overline{)\,112\text{ m}}$ **b** $6\overline{)\,330\text{ cm}}$ **c** $7\overline{)\,9\text{ m }17\text{ cm}}$

d 31 m ÷ 5 = ☐ m ☐ cm **e** 864 cm ÷ 8 = ☐ m ☐ cm

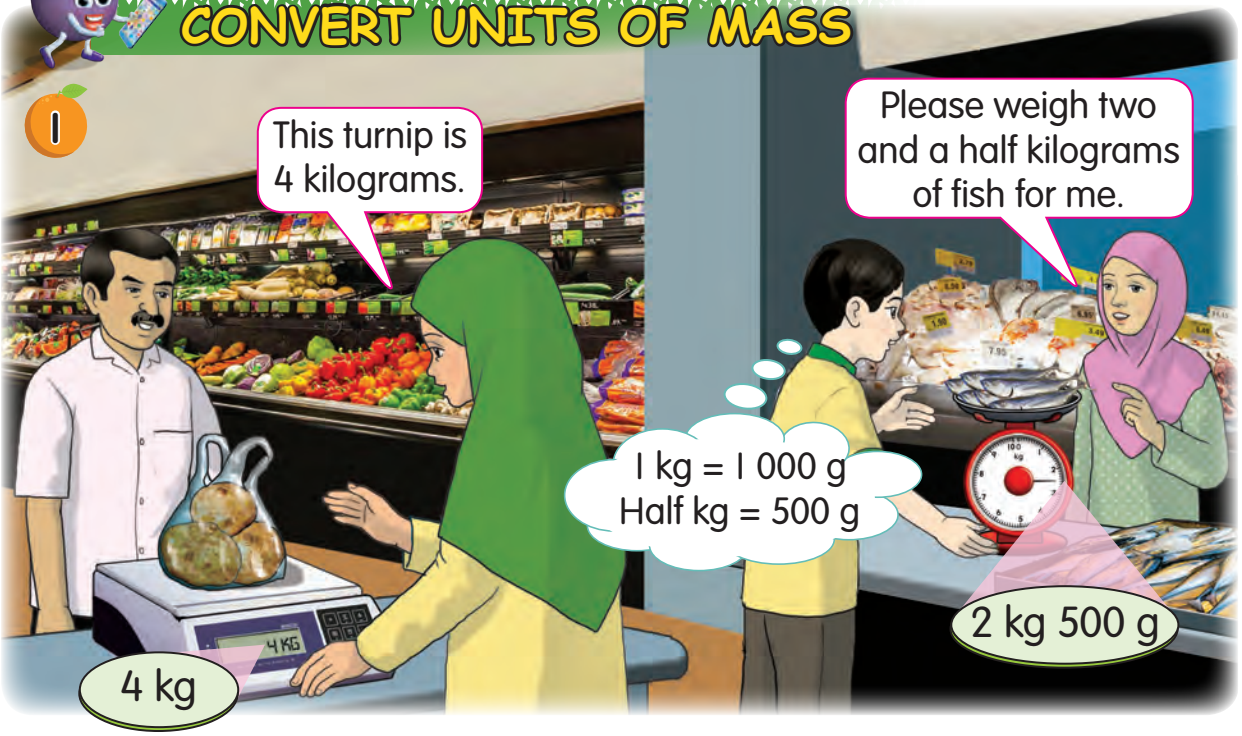
2 Divide 2 m by 4. State the answer in cm.

TEACHER'S NOTES

- Remind pupils to convert the unit if the answer required is in a different unit from the question.
- Use suitable situations in school to carry out simulation activities such as multiplying and dividing length.

CONVERT UNITS OF MASS

1



a Convert 4 kg to g.

4 kg = ☐ g

4 kg = 4 × 1 000 g
= 4 000 g

4 kg = **4 000 g**

b State 2 kg 500 g in g.

2 kg 500 g = ☐ g

2 kg 500 g → 2 kg = 2 000 g
→ 500 g

2 kg 500 g = 2 000 g + 500 g
= 2 500 g

2 kg 500 g = **2 500 g**

TEACHER'S NOTES

- State the relationship between kilogram and gram units through simulation activities and using scales.
- Emphasise that pupils must convert kilogram to gram by multiplying by 1 000.

2 What is the mass of a Rafflesia flower in kg?

7 000 g

7 000 g = ☐ kg

7 000 g = (7 000 ÷ 1 000) kg

= 7 kg

7 000 g = **7 kg**

The mass of a Rafflesia flower is **7 kg**.

3 Convert the mass of an ostrich egg to kg and g.

1 400 g = ☐ kg ☐ g

1 400 g = 1 000 g + 400 g

= 1 kg + 400 g

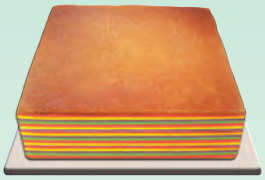
= 1 kg 400 g

1 400 g = **1 kg 400 g**

1 400 g

The mass of an ostrich egg is **1 kg 400 g**.

4



1 950 g

What is the mass of this cake in kg and g?

LET'S TRY

Convert the following units.

a 

1 kg

☐ g

b 

2 000 g

☐ kg

c 

1 325 g

☐ kg ☐ g

d 6 kg 8 g = ☐ g

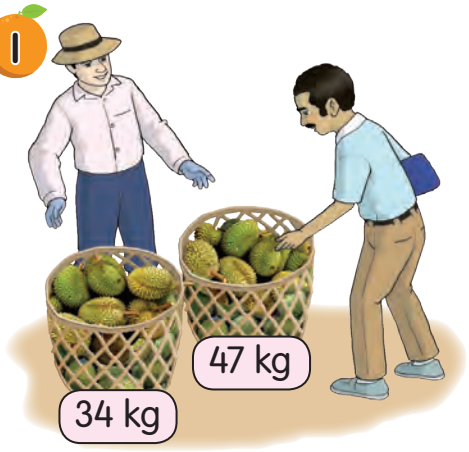
e 9 010 g = ☐ kg ☐ g

AB 112 TEACHER'S NOTES

- Emphasise to pupils that to convert gram to kilogram, divide by 1 000.
- Surf http://wwwhomeschoolmath.net/worksheets/measuring.php

ADDITION OF MASS

1 Calculate the total mass of the durians.



34 kg + 47 kg = ☐ kg

$$\begin{array}{r} {\scriptstyle 1} \\ 34\ \text{kg} \\ +\ 47\ \text{kg} \\ \hline 81\ \text{kg} \end{array}$$

34 kg + 47 kg = **81 kg**

The total mass of the durians is **81 kg**.

2 What is the total mass of the mangosteens?

28 kg + 19 kg + 7 kg = ☐ kg

$$\begin{array}{r} {\scriptstyle 2} \\ 28\ \text{kg} \\ 19\ \text{kg} \\ +\ \ 7\ \text{kg} \\ \hline 54\ \text{kg} \end{array}$$

28 kg + 19 kg + 7 kg = **54 kg**

The total mass of the mangosteens is **54 kg**.

3 Calculate the total mass of  and  .

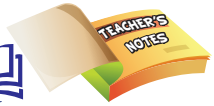
685 g + 975 g = ☐ g

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 685\ \text{g} \\ +\ \ 975\ \text{g} \\ \hline 1\,660\ \text{g} \end{array}$$

685 g + 975 g = **1 660 g**

State the answer in kg and g.

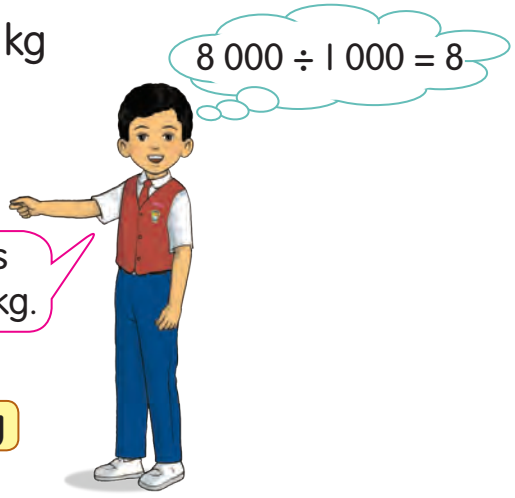
The total mass of  and  is **1 660 g**.



- Guide pupils to add units of mass based on situations and through simulation activities.
- Explain that the addition of units of mass is the same as addition of whole numbers.

4 Add 1 250 g, 786 g and 5 964 g. State the answer in kg.

1 250 g + 786 g + 5 964 g = ☐ kg

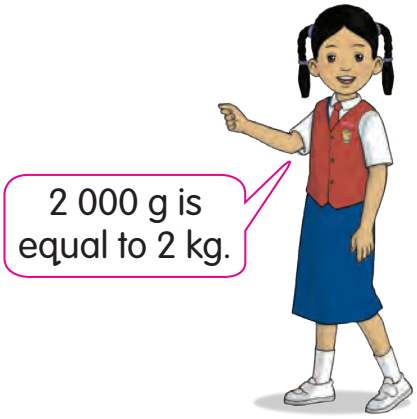



```
  2  2  1
  1  2 5 0 g
     7 8 6 g
+ 5  9 6 4 g
  ---------
  8  0 0 0 g
```

1 250 g + 786 g + 5 964 g = **8 kg**

5 2 kg 450 g + 1 kg 950 g + 2 kg 780 g = ☐ kg ☐ g

```
                1
  2 kg      4 5 0 g
  1 kg      9 5 0 g
+ 2 kg      7 8 0 g
  -------------------
  5 kg  2   1 8 0 g
+ 2     - 2 0 0 0
  -------------------
  7 kg      1 8 0 g
```



2 kg 450 g + 1 kg 950 g + 2 kg 780 g = **7 kg 180 g**

LET'S TRY

Add.

a 72 kg + 18 kg = ☐ kg

b 435 g + 262 g = ☐ g

c 2 364 g + 75 g + 3 561 g = ☐ kg

d 30 kg 510 g + 920 g = ☐ kg ☐ g

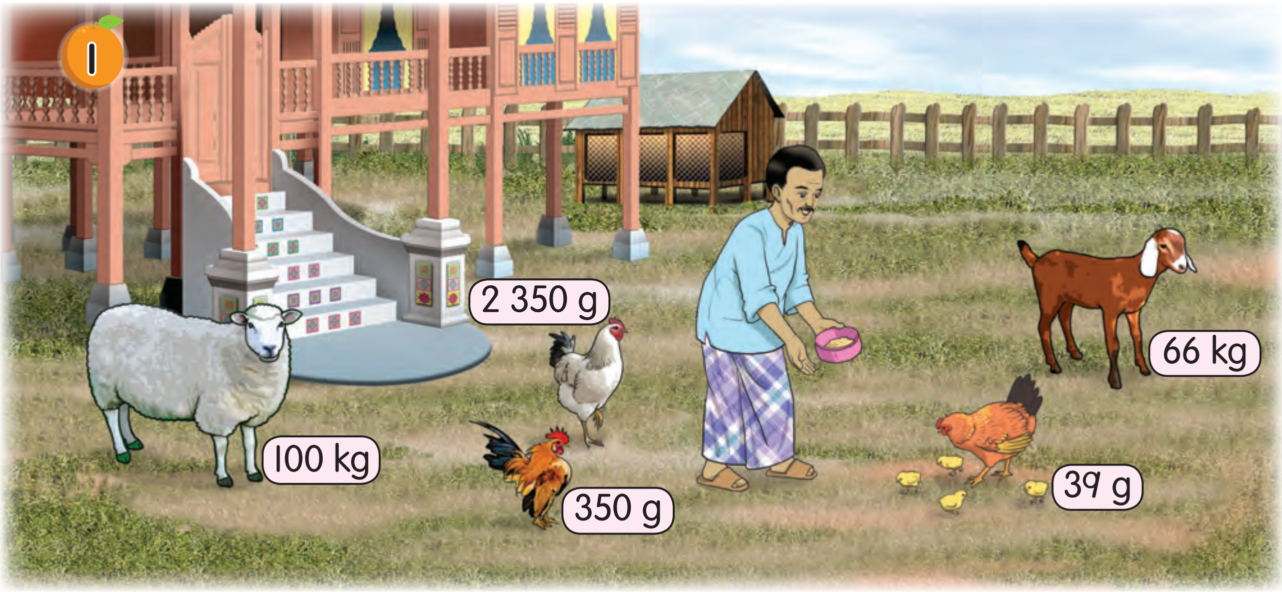
e 6 kg 217 g + 1 kg 830 g + 2 kg 96 g = ☐ kg ☐ g

AB 113 TEACHER'S NOTES

- Guide pupils to regroup from gram to kilogram.

SUBTRACTION OF MASS

1



a Find the difference in mass between  and  .

100 kg – 66 kg = ☐ kg

```
     9
   0 10 10
   1  0  0 kg
–     6  6 kg
      3  4 kg
```

100 kg – 66 kg = **34 kg**

The difference in mass between  and  is **34 kg**.

b How much more is the mass of  than the mass of  ?

2 350 g – 350 g = ☐ g

```
  2 3 5 0 g
–   3 5 0 g
  2 0 0 0 g
```

2 350 g – 350 g = **2 000 g**

The mass of  is **2 000 g** more than the mass of  .

How much less is the mass of  than the mass of  ?

TEACHER'S NOTES
- In groups, carry out activities of subtracting units of mass based on situations given using question cards.
- Train pupils to compare mass between objects and find the difference.

6.2.3

2 7 kg 90 g – 5 kg 780 g = ☐ kg ☐ g

	6 0 10	
	~~7~~ kg	~~9 0~~ g
–	5 kg	7 8 0 g
	1 kg	3 1 0 g

7 kg 90 g – 5 kg 780 g = **1 kg 310 g**

3 8 kg 62 g – 2 350 g = ☐

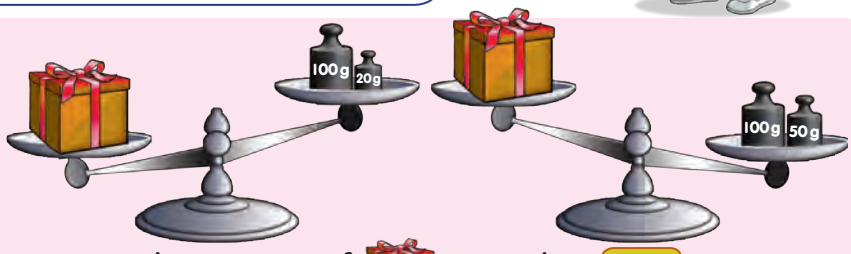
8 kg 62 g = 8 000 g + 62 g
= 8 062 g

2 350 g = 2 kg 350 g

	7 10	
	~~8~~ ~~0~~ 6 2 g	
–	2 3 5 0 g	
	5 7 1 2 g	

	8 kg	6 2 g
–	2 kg	3 5 0 g
	6 kg	3 1 2 g

Which answer is correct? Why?



The mass of ☐ may be ☐ g.

LET'S TRY

1 Subtract.

(a) 102 kg – 47 kg = ☐ kg

(b) 3 150 g – 765 g = ☐ g

(c) 15 kg 650 g – 9 kg 340 g = ☐ kg ☐ g

(d) 30 kg 8 g – 19 kg 632 g = ☐ g

2 Find the difference between 8 kg 100 g and 7 kg 550 g.

3 Subtract 4 201 g from 9 kg 60 g.

AB 114 TEACHER'S NOTES

- Guide pupils to regroup from kilogram to gram. Explain how to subtract according to the concept of kilogram and gram units, or according to place value.

MULTIPLICATION OF MASS

1

a Calculate the mass of 8 similar packets of rice.

8 × 15 kg = ☐ kg

$$\begin{array}{r} {\scriptstyle 4\ \ \ } \\ 15\ \text{kg} \\ \times\ \ 8 \\ \hline 120\ \text{kg} \end{array}$$

8 × 15 kg = **120 kg**

The mass of 8 similar packets of rice is **120 kg**.

b What is the mass of 7 jars of strawberry jam?

7 × 482 g = ☐ g

$$\begin{array}{r} {\scriptstyle 5\ 1\ \ } \\ 482\ \text{g} \\ \times\ \ 7 \\ \hline 3\,374\ \text{g} \end{array}$$

7 × 482 g = **3 374 g**

The mass of 7 jars of strawberry jam is **3 374 g**.

c Calculate the mass of 4 packets of oats.

4 × 1 250 g = ☐ kg

$$\begin{array}{r} {\scriptstyle 1\ \ 2\ \ } \\ 1\,250\ \text{g} \\ \times\ \ 4 \\ \hline 5\,000\ \text{g} \end{array} \rightarrow 5\ \text{kg}$$

5 000 g = ? kg
5 000 ÷ 1 000 = 5

Convert 5 000 g to kg.

4 × 1 250 g = **5 kg**

The mass of 4 packets of oats is **5 kg**.

TEACHER'S NOTES

- Multiply units of mass through simulation activities or based on the situation given.
- Multiply using repeated addition, number lines, or times tables.

6.2.4

2 9 × 2 kg 300 g = ☐ kg ☐ g

	2 kg	300 g
×		9
	18 kg	2 700 g
+	2	−2 000
	20 kg	700 g

9 × 2 kg 300 g = **20 kg 700 g**

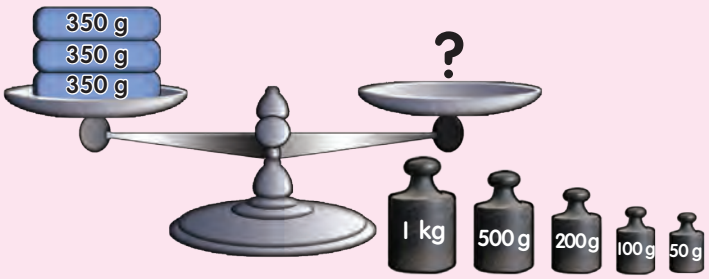
3 3 × 3 kg 172 g = ☐ g

Convert 3 kg 172 g to g.
3 kg 172 g = (3 × 1 000 g) + 172 g
= 3 000 g + 172 g
= 3 172 g

		2		
	3	1	72	g
×			3	
	9	5	16	g

3 × 3 kg 172 g = **9 516 g**

Which weights are suitable to be placed on the scales?



LET'S TRY

Multiply.

a

	26 kg
×	4
	☐

b

	583 g
×	5
	☐

c

	1 094 g
×	3
	☐

d 5 × 2 000 g = ☐ kg

e 6 × 4 kg 129 g = ☐ kg ☐ g

f 9 × 1 kg 108 g = ☐ g

g 7 × 1 050 g = ☐ kg ☐ g

AB 115 TEACHER'S NOTES

- Focus on how to regroup from gram to kilogram.

DIVISION OF MASS

1

Calculate the mass of a packet of green peas.

15 kg ÷ 5 = ☐ kg

$$\begin{array}{r} 3\text{ kg} \\ 5\overline{)\,15\text{ kg}} \\ -\,15 \\ \hline 0 \end{array}$$

15 kg ÷ 5 = **3 kg**

The mass of a packet of green peas is **3 kg**.

2

What is the mass of anchovies in each bowl?

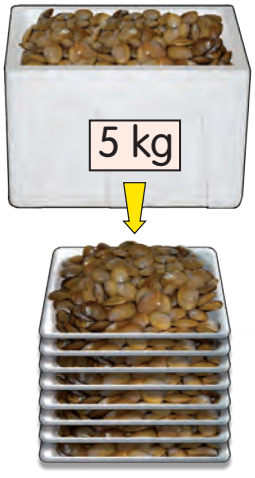
600 g ÷ 4 = ☐ g

600 g ÷ 4 = **150 g**

The mass of anchovies in each bowl is **150 g**.

$$\begin{array}{r} 150\text{ g} \\ 4\overline{)\,600\text{ g}} \\ -\,4\downarrow \\ \hline 20\downarrow \\ -\,20 \\ \hline 00 \\ -\;\;0 \\ \hline 0 \end{array}$$

3



Calculate the mass of a packet of mussels.

5 kg ÷ 8 = ☐ g

5 kg ÷ 8 = **625 g**

The mass of a packet of mussels is **625 g**.

$$\begin{array}{r} 625\text{ g} \\ 8\overline{)\,5000\text{ g}} \\ -\,48\downarrow \\ \hline 20\downarrow \\ -\,16 \\ \hline 40 \\ -\,40 \\ \hline 0 \end{array}$$

TEACHER'S NOTES

- Explain the concept of division involving mass by doing simulation activities.
- Discuss nett mass, which means the mass of an item without the mass of its container.

4 30 kg 612 g ÷ 3 = ☐ kg ☐ g

```
   10 kg   204 g
3 ) 30 kg  612 g
   − 30    − 6
     0       01
           −  0
              12
           − 12
              0
```

Try to divide 30 kg 612 g by 6. What is the answer?

30 kg 612 g ÷ 3 = **10 kg 204 g**

5 8 kg 400 g ÷ 7 = ☐ kg ☐ g

```
    1 kg     200 g
7 ) 8 kg     400 g
   − 7     + 1 000
     1       1 400
           − 14
             00
           −  0
              00
           −  0
              0
```

Convert 1 kg to 1 000 g.
1 000 g + 400 g = 1 400 g

8 kg 400 g ÷ 7 = **1 kg 200 g**

8 400 g ÷ 7 = ☐

Does this question give the same answer? Discuss.

LET'S TRY

Divide.

a) 4) 32 kg

b) 6) 780 g

c) 3) 9 kg 210 g

d) 45 kg ÷ 5 = ☐ g

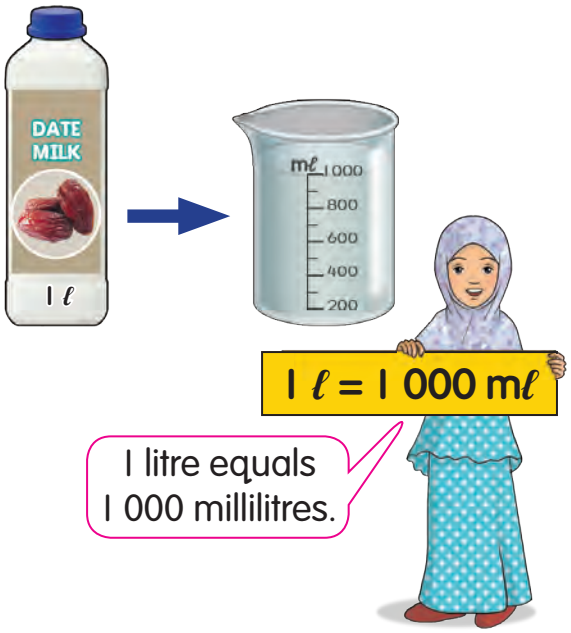
e) 25 kg 200 g ÷ 7 = ☐ kg ☐ g

AB 116 TEACHER'S NOTES

- Remind pupils to convert the unit if the answer required is in a different unit from the question.
- Provide more questions in various forms such as number sentences, vertical forms, and situations.

CONVERT UNITS OF VOLUME OF LIQUID

1



2 What is the volume of coconut water in mℓ?

2 ℓ = ☐ mℓ

2 ℓ = 2 × 1 000 mℓ

= 2 000 mℓ

2 ℓ = **2 000 mℓ**

The volume of coconut water is **2 000 mℓ**.

3 Convert 4 ℓ 360 mℓ to mℓ.

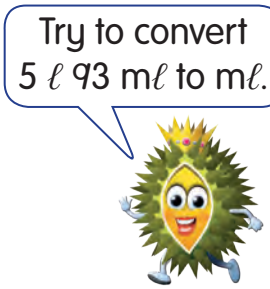
4 ℓ 360 mℓ = ☐ mℓ

4 ℓ 360 mℓ = 4 ℓ + 360 mℓ

= 4 000 mℓ + 360 mℓ

= 4 360 mℓ

4 ℓ 360 mℓ = **4 360 mℓ**



TEACHER'S NOTES

- State the relationship between the units of litre and millilitre by simulation activities and using measuring tools.
- Make a scrapbook about the volume of liquid using sales brochures.

6.3.1

4 What is the volume of water in ℓ?

8 000 mℓ = ☐ ℓ

8 000 mℓ = (8 000 ÷ 1 000) ℓ
= 8 ℓ

8 000 mℓ = **8 ℓ**

The volume of water is **8 ℓ**.

5 Convert the volume of fabric softener to ℓ and mℓ.

2 350 mℓ = ☐ ℓ ☐ mℓ

2 350 mℓ → 2 000 mℓ = 2 ℓ
→ 350 mℓ

2 350 mℓ = 2 ℓ + 350 mℓ
= 2 ℓ 350 mℓ

2 350 mℓ = **2 ℓ 350 mℓ**

The volume of fabric softener is **2 ℓ 350 mℓ**.

LET'S TRY

Convert the following units.

a 3 ℓ = ☐ mℓ

b 10 ℓ = ☐ mℓ

c 5 000 mℓ = ☐ ℓ

d 9 000 mℓ = ☐ ℓ

e 1 ℓ 940 mℓ = ☐ mℓ

f 7 ℓ 50 mℓ = ☐ mℓ

g 2 ℓ 3 mℓ = ☐ mℓ

h 4 ℓ 68 mℓ = ☐ mℓ

i 6 150 mℓ = ☐ ℓ ☐ mℓ

j 3 070 mℓ = ☐ ℓ ☐ mℓ

AB 117 TEACHER'S NOTES

- Emphasise that to convert litre to millilitre, multiply by 1 000, and to convert millilitre to litre, divide by 1 000.

ADDITION OF VOLUME OF LIQUID

1 What is the total volume of water in the barrel?

$35\ \ell + 9\ \ell =$ ☐ ℓ

$$\begin{array}{r} 35\ \ell \\ +\ \ \ 9\ \ell \\ \hline 44\ \ell \end{array}$$

$35\ \ell + 9\ \ell =$ **44 ℓ**

The total volume of water in the barrel is **44 ℓ**.

2 $12\ \ell + 30\ \ell + 8\ \ell =$ ☐ ℓ

$$\begin{array}{r} 12\ \ell \\ 30\ \ell \\ +\ \ \ 8\ \ell \\ \hline 50\ \ell \end{array}$$

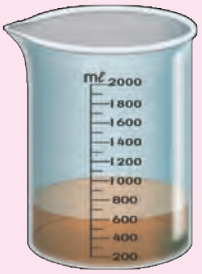
$12\ \ell + 30\ \ell + 8\ \ell =$ **50 ℓ**

3 $670\ m\ell + 340\ m\ell =$ ☐ $m\ell$

$$\begin{array}{r} 670\ m\ell \\ +\ \ 340\ m\ell \\ \hline 1\,010\ m\ell \end{array}$$

$670\ m\ell + 340\ m\ell =$ **1 010 $m\ell$**

State 1 010 $m\ell$ in ℓ and $m\ell$.



How much water, in $m\ell$, should be added to the beaker to make it 2 ℓ?

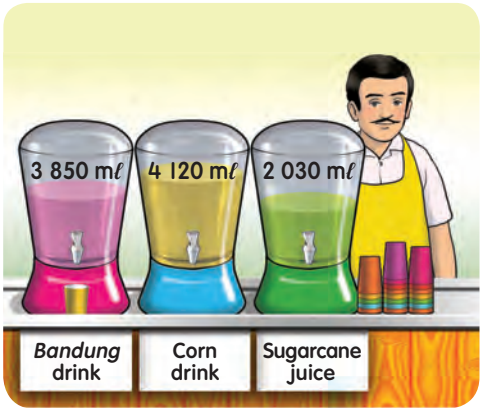
TEACHER'S NOTES

- Guide pupils to add volume of liquids based on situations and simulation activities.

6.3.2

4 Calculate the total volume of drinks.

3 850 mℓ + 4 120 mℓ + 2 030 mℓ = ☐ ℓ



$$\begin{array}{rr} & {\scriptstyle 1\ \ 1\ \ \ \ } \\ & 3\ 8\ 5\ 0\ \text{mℓ} \\ & 4\ 1\ 2\ 0\ \text{mℓ} \\ + & 2\ 0\ 3\ 0\ \text{mℓ} \\ \hline & 1\ 0\ 0\ 0\ 0\ \text{mℓ} \end{array}$$

(10 000 ÷ 1 000) ℓ = 10 ℓ

3 850 mℓ + 4 120 mℓ + 2 030 mℓ = **10 ℓ**

The total volume of drinks is **10 ℓ**.

5 5 ℓ 720 mℓ + 2 ℓ 80 mℓ + 980 mℓ = ☐ ℓ ☐ mℓ

$$\begin{array}{rrr} & & {\scriptstyle 1\ \ \ \ } \\ & 5\ \ell & 7\ 2\ 0\ \text{mℓ} \\ & 2\ \ell & 8\ 0\ \text{mℓ} \\ + & & 9\ 8\ 0\ \text{mℓ} \\ \hline & 7\ \ell & 1\ 7\ 8\ 0\ \text{mℓ} \\ + & 1 \quad -1\ 000 & \\ \hline & 8\ \ell & 7\ 8\ 0\ \text{mℓ} \end{array}$$

5 ℓ 720 mℓ + 2 ℓ 80 mℓ + 980 mℓ = **8 ℓ 780 mℓ**

LET'S TRY

1 Add.

a 67 ℓ + 25 ℓ = ☐ ℓ

b 38 ℓ + 9 ℓ + 27 ℓ = ☐ ℓ

c 304 mℓ + 961 mℓ = ☐ mℓ

d 1 055 mℓ + 3 498 mℓ + 447 mℓ = ☐ ℓ

e 6 ℓ 730 mℓ + 9 ℓ 407 mℓ = ☐ ℓ ☐ mℓ

2 Total up 5 ℓ 50 mℓ and 2 750 mℓ. State the answer in mℓ.

AB 118 TEACHER'S NOTES

- Guide pupils to regroup from millilitre to litre in addition.
- Provide more of exercises in various forms, such as number sentences, vertical forms, and situations.

SUBTRACTION OF VOLUME OF LIQUID

1 Find the difference between the two volumes of petrol below.

85 ℓ – 47 ℓ = ☐ ℓ

7 15
~~8~~ ~~5~~ ℓ
– 4 7 ℓ
3 8 ℓ

85 ℓ – 47 ℓ = **38 ℓ**

The difference between the two volumes of petrol is **38 ℓ**.

2 How much more is the volume of sunflower oil than olive oil?

3 500 mℓ – 1 250 mℓ = ☐ mℓ

4 10
3 ~~5~~ ~~0~~ 0 mℓ
– 1 2 5 0 mℓ
2 2 5 0 mℓ

3 500 mℓ – 1 250 mℓ = **2 250 mℓ**

The volume of sunflower oil is **2 250 mℓ** more than olive oil.

3 9 ℓ 480 mℓ – 2 ℓ 760 mℓ = ☐ ℓ ☐ mℓ

0 14
8 ~~1~~ ~~4~~ 8 0
~~9~~ ℓ ~~4~~ ~~8~~ 0 mℓ
– 2 ℓ 7 6 0 mℓ
6 ℓ 7 2 0 mℓ

9 ℓ 480 mℓ – 2 ℓ 760 mℓ = **6 ℓ 720 mℓ**

TEACHER'S NOTES

- Train pupils with mechanical questions in simple form using vocabulary that means subtract.

4 What is the remaining volume of water in the big bottle after the small bottle is filled?

10 ℓ – 4 095 mℓ = ☐ mℓ

9 9 9
0 10 10 10 10
~~1~~ ~~0~~ ~~0~~ ~~0~~ ~~0~~ mℓ
– 4 0 9 5 mℓ
5 9 0 5 mℓ

10 ℓ – 4 095 mℓ = **5 905 mℓ**

The remaining volume of water in the big bottle is **5 905 mℓ**.

5 5 ℓ 200 mℓ – 1 680 mℓ = ☐ ℓ ☐ mℓ

11
0 ~~1~~ 10
4 ~~2~~ ~~0~~ ~~0~~ 0
~~5~~ ℓ ~~2~~ ~~0~~ ~~0~~ mℓ
– 1 ℓ 6 8 0 mℓ
3 ℓ 5 2 0 mℓ

What is the balance if 3 ℓ 520 mℓ is subtracted from 5 ℓ 200 mℓ?

5 ℓ 200 mℓ – 1 680 mℓ = **3 ℓ 520 mℓ**

LET'S TRY

Subtract.

a 90 ℓ – 36 ℓ = ☐ ℓ

b 1 100 mℓ – 480 mℓ = ☐ mℓ

c 71 ℓ – 64 ℓ = ☐ mℓ

d 8 ℓ – 3 ℓ 150 mℓ = ☐ mℓ

e 9 ℓ 750 mℓ – 4 ℓ 10 mℓ = ☐ ℓ ☐ mℓ

f 5 ℓ 620 mℓ – 2 ℓ 700 mℓ = ☐ ℓ ☐ mℓ

g 6 ℓ 30 mℓ – 5 640 mℓ = ☐ mℓ

h 10 ℓ – 8 920 mℓ = ☐ ℓ ☐ mℓ

AB 119 TEACHER'S NOTES

- Remind pupils to convert the unit if the answer required is in a different unit from the question.

MULTIPLICATION OF VOLUME OF LIQUID

1 What is the volume of 6 similar bottles of fresh milk?

$6 \times 2\ \ell = \square\ \ell$

$$\begin{array}{r} 2\ \ell \\ \times\ \ \ 6 \\ \hline 1\,2\ \ell \end{array}$$

$6 \times 2\ \ell =$ **12 ℓ**

The volume of 6 similar bottles of fresh milk is **12 ℓ**.

2 $4 \times 250\ m\ell = \square\ m\ell$

$$\begin{array}{r} {\scriptstyle 2}\ \ \ \ \ \ \\ 2\,5\,0\ m\ell \\ \times\ \ \ \ \ 4 \\ \hline 1\,0\,0\,0\ m\ell \end{array}$$

$4 \times 250\ m\ell =$ **1 000 mℓ**

3 $3 \times 3\ \ell\ 120\ m\ell = \square\ \ell\ \square\ m\ell$

$$\begin{array}{r} 3\ \ell\ \ 1\,2\,0\ m\ell \\ \times\ \ \ \ \ \ \ 3 \\ \hline 9\ \ell\ 3\,6\,0\ m\ell \end{array}$$

$3 \times 3\ \ell\ 120\ m\ell =$ **9 ℓ 360 mℓ**

TEACHER'S NOTES

- Train pupils to multiply volume of liquids by using repeated addition or times tables.

6.3.4

4 Find the volume of 7 similar bottles of shampoo.

$7 \times 650\ m\ell =$ ☐ ℓ ☐ $m\ell$

$$\begin{array}{r} {\scriptstyle 3}\\ 650\ m\ell \\ \times \quad 7 \\ \hline 4\ 550\ m\ell \end{array}$$

$4\ 550\ m\ell = 4\ 000\ m\ell + 550\ m\ell$
$= 4\ \ell + 550\ m\ell$
$= 4\ \ell\ 550\ m\ell$

$7 \times 650\ m\ell =$ **4 ℓ 550 mℓ**

The volume of 7 similar bottles of shampoo is **4 ℓ 550 mℓ**.

5 $8 \times 2\ \ell\ 450\ m\ell =$ ☐ ℓ ☐ $m\ell$

$$\begin{array}{r} 2\ \ell \quad {\scriptstyle 4}\ 450\ m\ell \\ \times \quad 8 \\ \hline 16\ \ell \quad 3\ 600\ m\ell \\ +\ 3 \quad -3\ 000 \\ \hline 19\ \ell \quad 600\ m\ell \end{array}$$

3 000 mℓ equals 3 ℓ.

$8 \times 2\ \ell\ 450\ m\ell =$ **19 ℓ 600 mℓ**

Try calculating the volume of these 5 bottles of shampoo. Give the answer in ℓ.

LET'S TRY

Multiply.

a $4 \times 12\ \ell =$ ☐ ℓ

b $3 \times 750\ m\ell =$ ☐ $m\ell$

c $2 \times 4\ \ell\ 500\ m\ell =$ ☐ ℓ

d $6 \times 925\ m\ell =$ ☐ ℓ ☐ $m\ell$

e $7 \times 1\ \ell\ 420\ m\ell =$ ☐ ℓ ☐ $m\ell$

f $9 \times 2\ \ell\ 400\ m\ell =$ ☐ ℓ ☐ $m\ell$

AB 120 TEACHER'S NOTES

- Carry out multiplication of volume of liquid using pictures from sales brochures to enhance pupils' understanding.

DIVISION OF VOLUME OF LIQUID

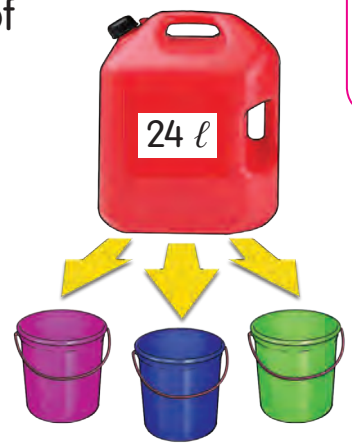
1 What is the volume of water in each pail?

$24\ \ell \div 3 = \square\ \ell$

$$\begin{array}{r} 8\ \ell \\ 3\overline{)\,24\ \ell} \\ -\,24 \\ \hline 0 \end{array}$$

$24\ \ell \div 3 = \mathbf{8\ \ell}$

The volume of water in each pail is **8 ℓ**.



2 $900\ m\ell \div 2 = \square\ m\ell$

$$\begin{array}{r} 450\ m\ell \\ 2\overline{)\,900\ m\ell} \\ -\,8\downarrow \\ \hline 10 \\ -\,10 \\ \hline 00 \\ -\,0 \\ \hline 0 \end{array}$$

$900\ m\ell \div 2 = \mathbf{450\ m\ell}$

If 900 $m\ell$ of glue is filled equally in 4 bottles, what is the volume of glue in each bottle?

3 $1\ \ell\ 20\ m\ell \div 6 = \square\ m\ell$

$1\ \ell\ 20\ m\ell = 1\,000\ m\ell + 20\ m\ell$
$= 1\,020\ m\ell$

$$\begin{array}{r} 170\ m\ell \\ 6\overline{)\,1\,020\ m\ell} \\ -\,6\downarrow \\ \hline 42 \\ -\,42 \\ \hline 00 \\ -\,0 \\ \hline 0 \end{array}$$

$1\ \ell\ 20\ m\ell \div 6 = \mathbf{170\ m\ell}$

TEACHER'S NOTES

- Carry out simulation activities using graduated containers.

4 7 ℓ 500 mℓ ÷ 5 = ☐ ℓ ☐ mℓ

```
   1 ℓ   500 mℓ
5 ) 7 ℓ   500 mℓ
  − 5   + 2 000
    2     2 500
        − 2 5
          0 0
        −   0
            0 0
          −   0
              0
```

7 ℓ 500 mℓ ÷ 5 = **1 ℓ 500 mℓ**

5 11 ℓ ÷ 8 = ☐ ℓ ☐ mℓ

```
   1 ℓ   375 mℓ
8 ) 11 ℓ     0 mℓ
  − 8   + 3 000
    3     3 000
        − 2 4
          6 0
        − 5 6
            4 0
          − 4 0
              0
```

11 ℓ ÷ 8 = **1 ℓ 375 mℓ**

A watermelon with a mass of 4 kg has an estimated 3 600 mℓ volume of water. What is the estimated volume of water in a watermelon with a mass of 1 kg?

LET'S TRY

1 Divide.

(a) 32 ℓ ÷ 4 = ☐ ℓ

(b) 840 mℓ ÷ 3 = ☐ mℓ

(c) 1 ℓ 10 mℓ ÷ 5 = ☐ mℓ

(d) 9 ℓ 120 mℓ ÷ 6 = ☐ ℓ ☐ mℓ

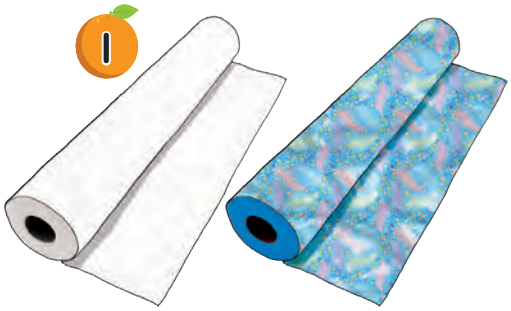
(e) 9 ℓ 240 mℓ ÷ 7 = ☐ ℓ ☐ mℓ

(f) 6 ℓ ÷ 8 = ☐ mℓ

2 Divide 9 873 mℓ by 9. State the answer in ℓ and mℓ.

CREATE STORIES

1



15 m + 28 m = **43 m**

Aishah bought **15 m** of white cloth and **28 m** of printed cloth to make curtains. The total length of cloth is **43 m**.

2

3 × 250 g = **750 g**

Mother uses **3** blocks of butter to make biscuits. The mass of a block of butter is **250 g**. The total mass of the butter used is ☐.

3

1 ℓ 200 mℓ ÷ 4 = **300 mℓ**

The volume of sugarcane juice in a jug is ☐ ℓ ☐ mℓ. The sugarcane juice is poured equally into ☐ glasses. Each glass is filled with ☐ mℓ of sugarcane juice.

LET'S TRY

Create stories.

a 2 m 70 cm – 1 m 65 cm = 1 m 5 cm

b 8 × 625 mℓ = 5 000 mℓ

c 4 kg 750 g + 1 kg 250 g = 6 kg

d 13 ℓ 500 mℓ ÷ 9 = 1 ℓ 500 mℓ

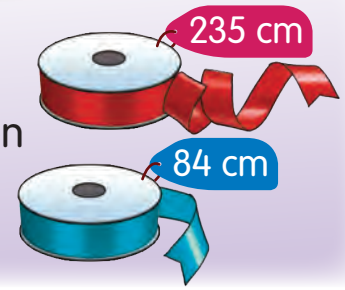
AB 122-123 TEACHER'S NOTES

- Guide pupils to create stories based on the number sentences using daily situations.
- Carry out a story creating competition. Interesting stories with appropriate pictures will be presented to the class.

6.4.1

SOLVE THE PROBLEMS

1 The picture shows the length of blue ribbon and red ribbon that Anis uses to make ribbon flowers. Calculate the total length of ribbons used, in m and cm.



Given 235 cm of red ribbon, 84 cm of blue ribbon

Find the total length of ribbons used in m and cm

Method 235 cm + 84 cm = ☐ m ☐ cm

$$\begin{array}{r} {\scriptstyle 1} \\ 235\text{ cm} \\ +\ \ 84\text{ cm} \\ \hline 319\text{ cm} \end{array}$$

319 cm → 300 cm = 3 m
→ 19 cm
391 cm = 3 m 19 cm

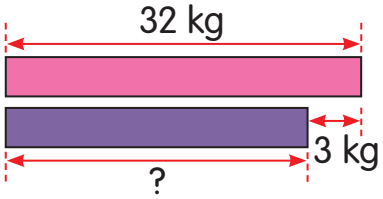
235 cm + 84 cm = **3 m 19 cm**

The total length of ribbons used is **3 m 19 cm**.

2 Lily's mass is 32 kg. Her mass is 3 kg more than Akmal's mass. What is Akmal's mass?

Method Lily's mass

Akmal's mass



32 kg – 3 kg = ☐ kg

$$\begin{array}{r} {\scriptstyle 2\ 12} \\ 3\not{2}\ \not{2}\text{ kg} \\ -\ \ 3\text{ kg} \\ \hline 29\text{ kg} \end{array}$$

Akmal's mass is **29 kg**.

TEACHER'S NOTES

- Guide pupils to solve problems by drawing diagrams.

3 Tini prepared two different drinks as shown in the table below.

Drink	Volume
Barley	3 ℓ 400 mℓ
Bandung drink	5 times the volume of barley drink

(a) Calculate the volume of the *bandung* drink in ℓ.

(b) Tini poured the *bandung* drink into 8 jugs. What is the volume, in ℓ and mℓ, of the *bandung* drink in 1 jug?

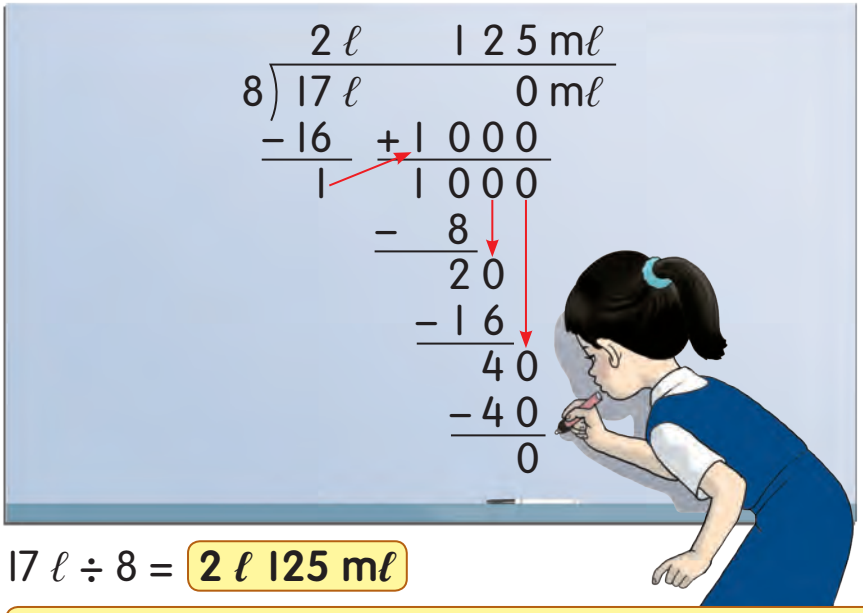
(a) Method 5 × 3 ℓ 400 mℓ = ☐ ℓ

	3 ℓ		400 mℓ	
×				5
	15 ℓ		2 000 mℓ	
+	2	−	2 000	
	17 ℓ			0 mℓ

5 × 3 ℓ 400 mℓ = **17 ℓ**

The volume of *bandung* drink is **17 ℓ**.

(b) Method 17 ℓ ÷ 8 = ☐ ℓ ☐ mℓ



17 ℓ ÷ 8 = **2 ℓ 125 mℓ**

The volume of *bandung* drink in 1 jug is **2 ℓ 125 mℓ**.

- Train pupils to solve daily problems involving addition, subtraction, multiplication, and division using various suitable strategies.

LET'S TRY

Solve the problems.

a i. Calculate the total mass of the pineapple and jackfruit.

ii. How much more is the mass of the jackfruit than pineapple?

Fruit	Mass
Pineapple	983 g
Jackfruit	4 kg 450 g

b Lina made 2 ℓ 520 mℓ of cocoa drink. She poured the drink equally into 8 cups. Calculate the volume, in mℓ, of the cocoa drink in each cup.

c

The length of this yellow hose is 1 m 35 cm.

The length of this green hose is 4 times the length of the yellow hose.

i. State the length of the yellow hose in cm.

ii. What is the length, in m and cm, of the green hose?

FUN PROJECT

Tools/Materials

pictures from sales brochures and the Internet, glue, coloured paper, pen, scissors

Participants

3 pupils per group

Method

1. Paste pictures related to length, mass, and volume of liquids.
2. Create questions involving addition, subtraction, multiplication, and division.
3. Decorate the scrapbook.
4. Present your group's work.

TEACHER'S NOTES

- Provide exercises in worksheets and question cards.
- Guide pupils to form questions from pictures chosen in the Fun Project.

Let's sing together. Find the answers.

If you're ready and you're smart look at the board
Let's think carefully and try to work it out
Two hundred and five, I figure it out
Yes that's the answer, say it loud.

2 m 5 cm
= 205 cm

If you're ready and you're smart let's count together
It's so easy come on let's all remember
Thirty-two, yes it's true
That's the answer, yes it's true
Now I need you to answer my questions, too.

32 cm
8) 256 cm

Answer my questions.

1 $125\ \ell - 43\ \ell = \square\ \ell$

2 $4 \times 70\ g = \square\ g$

3 1 380 cm + 920 cm = ☐ m

SCAN THIS

AB 127-128 TEACHER'S NOTES

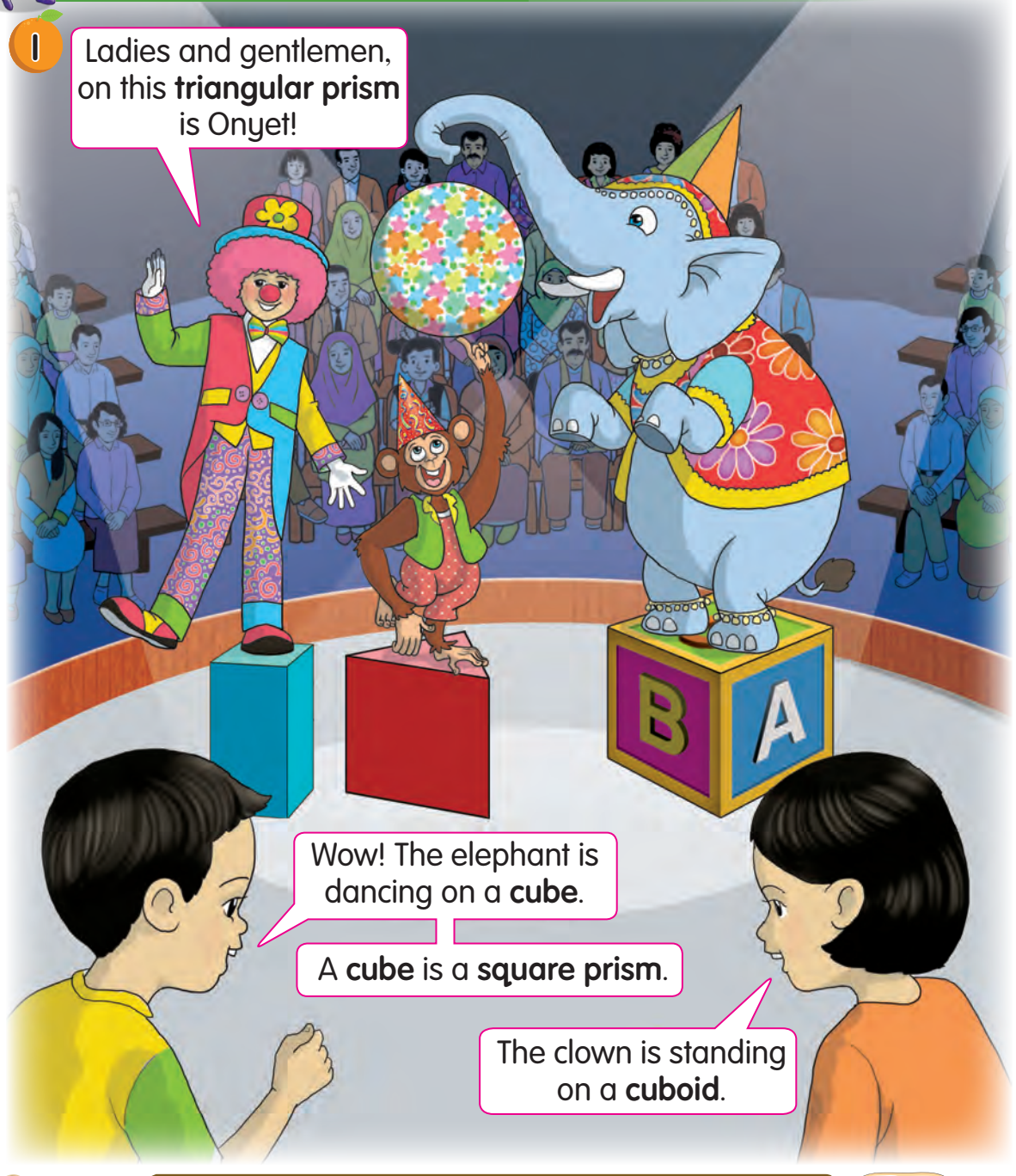
- Sing the song to the melody of "If You Are Happy and You Know It".
- Guide pupils to answer the questions.
- Teachers are encouraged to add other questions.

6.1
6.2
6.3

7 SHAPES

RECOGNISE PRISMS AND NON-PRISMS

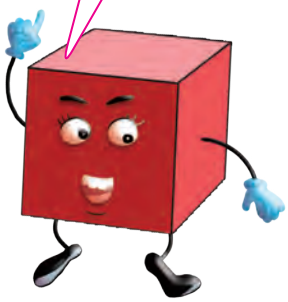
1

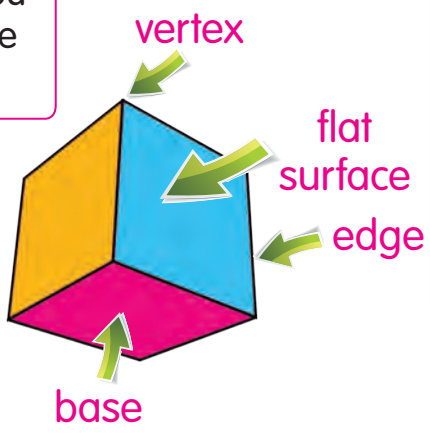


TEACHER'S NOTES

- Guide pupils to relate real objects with 3-D shapes to learn more about square prisms, rectangular prisms, and triangular prisms.

2 a

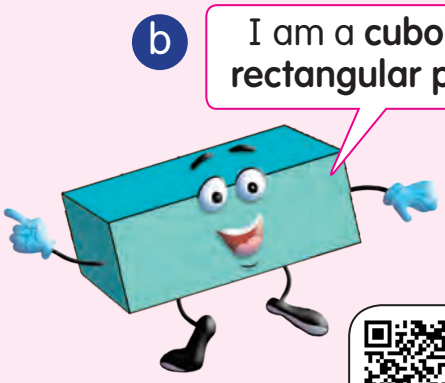




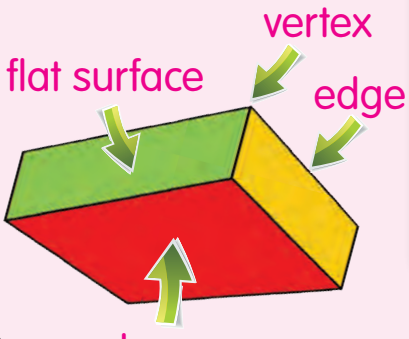
SQUARE PRISM

- 6 flat surfaces of equal size
- 8 vertices
- 12 edges

b



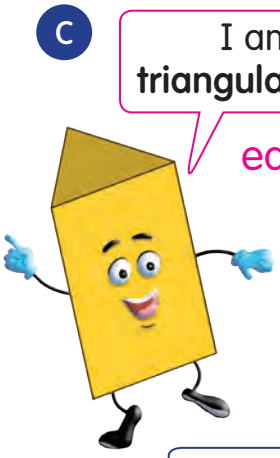
SCAN THIS

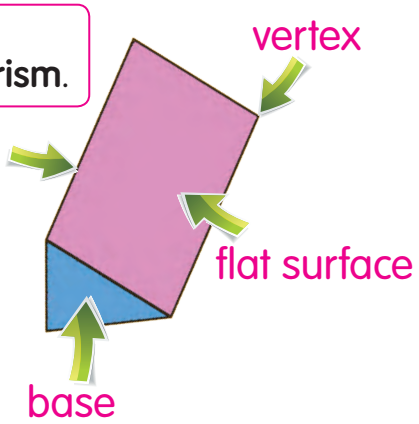


RECTANGULAR PRISM

- 6 flat surfaces
- 8 vertices
- ____ edges

c





TRIANGULAR PRISM

- ____ flat surfaces
- ____ vertices
- 9 edges

- Ask pupils to name objects around them that have the characteristics of prisms.
- Emphasise that a prism is named based on the same shape of the two opposite surfaces.

7.1.1
7.1.2

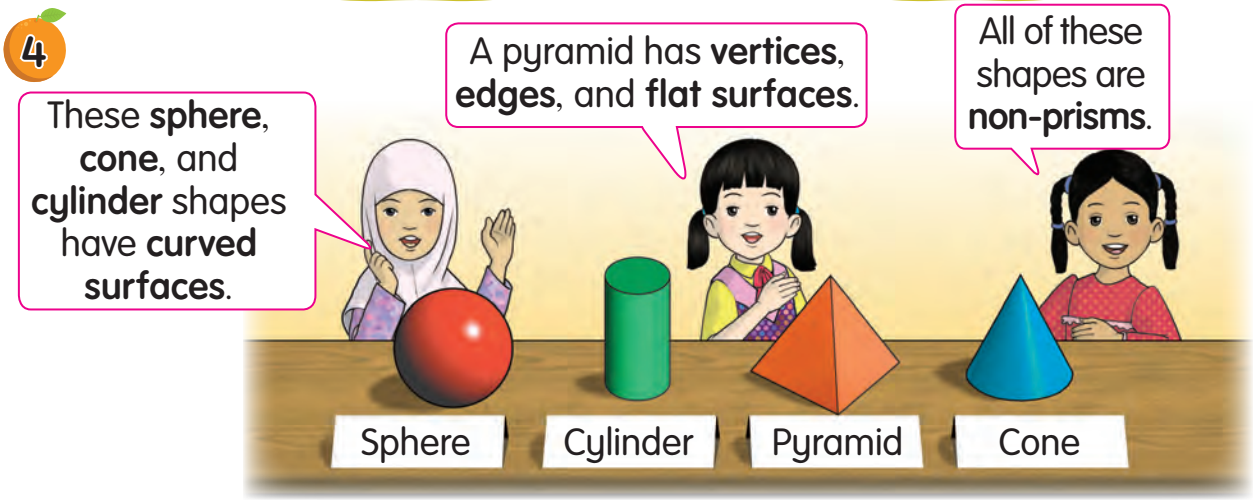
3

SCAN THIS

A PRISM:

- has **5** or **more flat surfaces**.
- has **2 opposite surfaces** of the **same shape** and **size**, each **called the base**.
- has **no curved surfaces.**

4



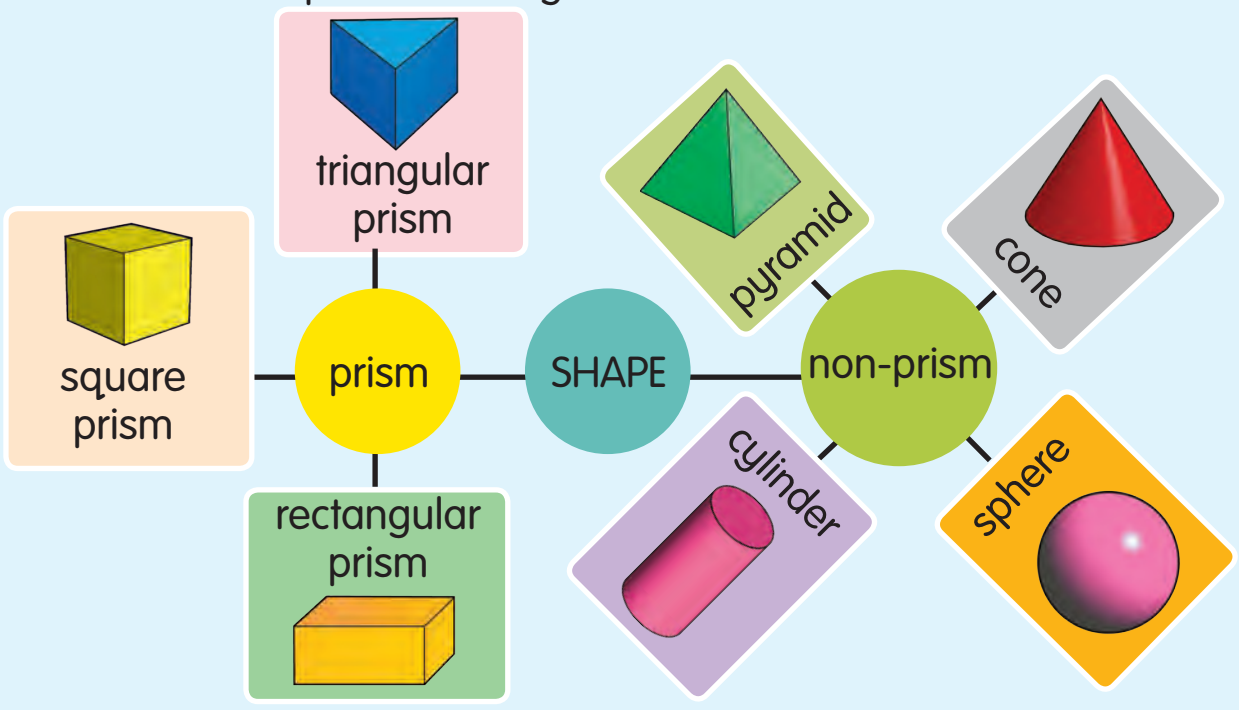
Characteristics of prism / Shape	5 or more flat surfaces	2 opposite surfaces of the same shape (base)	no curved surfaces
Sphere	✗	✗	✗
Cone	✗	✗	✗
Pyramid	✓	✗	✓
Cylinder	✗	✓	✗

AB 131 TEACHER'S NOTES

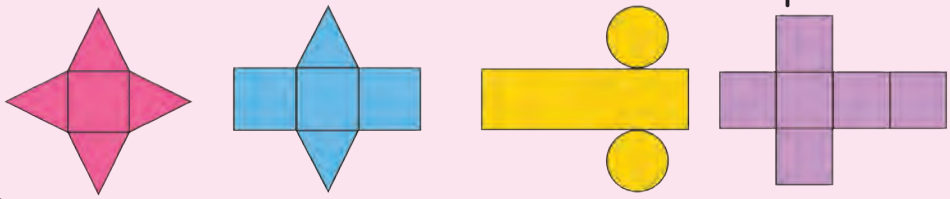
- Carry out activities of cutting objects like cuboid-shaped cakes, polystyrene in the shape of triangular prisms, and cube-shaped sponges to look at two opposite surfaces of equal shape (cross-section).

FUN PROJECT

Build a mind map or chart as given below:



Below are nets of three-dimensional shapes.

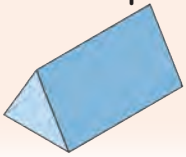


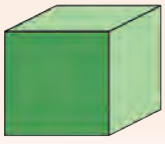
MIND CHALLENGE

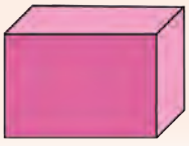
Jeny joins the prism net together.
Liza joins the non-prism net together.
Name the shapes that Jeny and Liza form.

LET'S TRY

Name the prisms below.

a 

b 

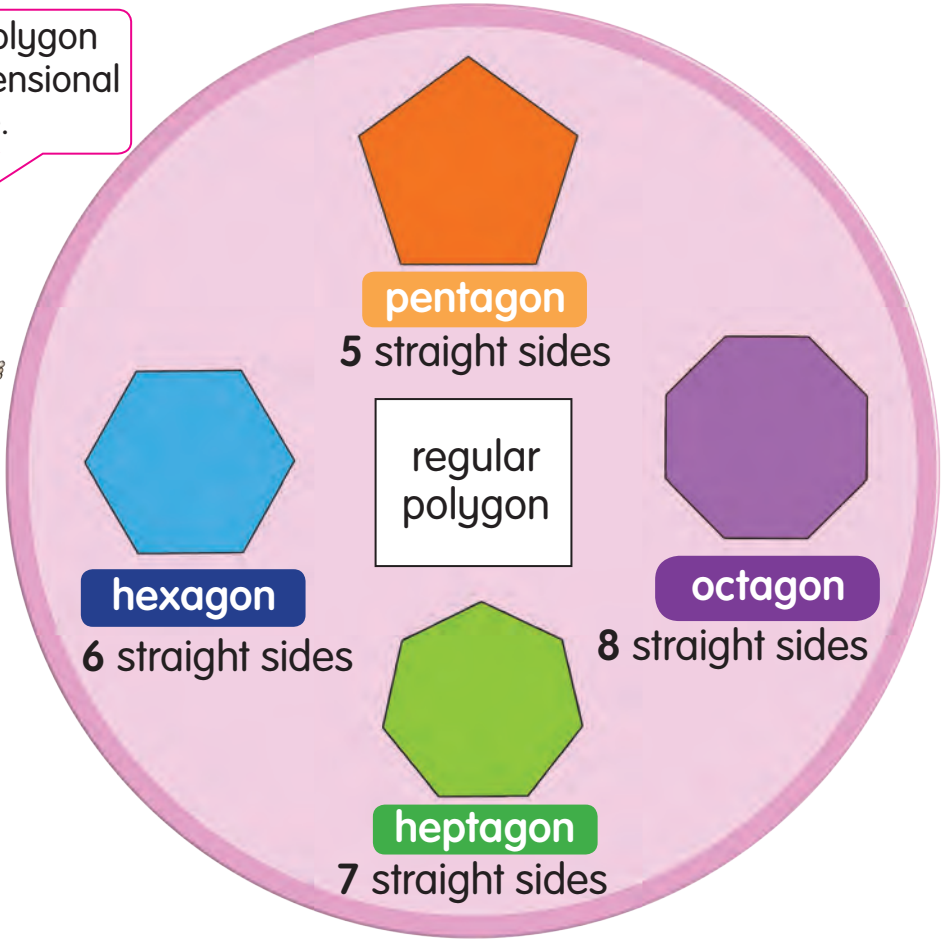
c 

TEACHER'S NOTES

- Prepare suitable mind maps and pictures of prisms and non-prisms. Ask pupils to paste prism and non-prism shapes on the mind map.

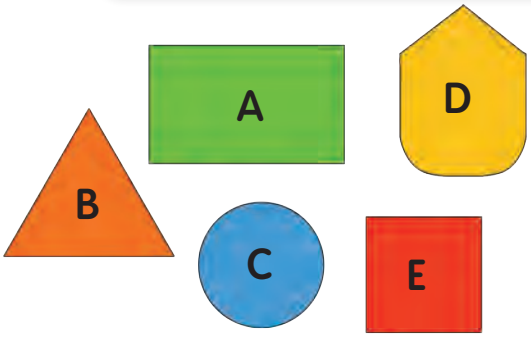
RECOGNISE REGULAR POLYGONS

1 A regular polygon is a two-dimensional shape.



REGULAR POLYGON

- has **3** or **more straight sides of equal length**.
- has **1 flat surface**.
- has **no curved sides**.



Which diagram is a regular polygon? Why?

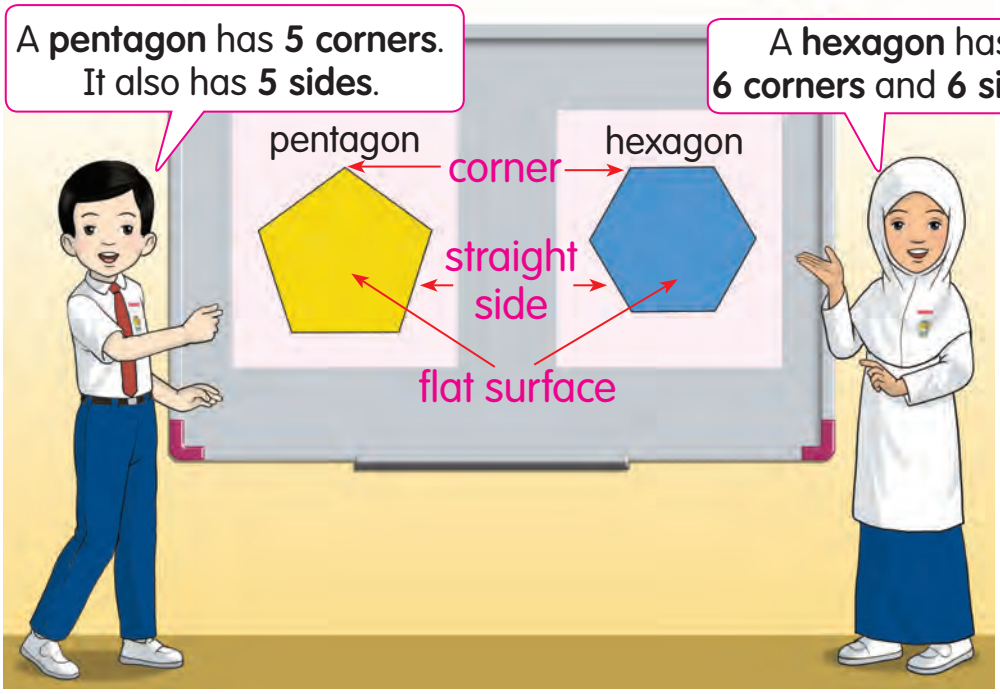
TEACHER'S NOTES

- Explain that regular polygons must have straight sides of equal length. Polygons with sides of unequal lengths are irregular polygons.
- Use geoboards and dotted paper to build regular polygons and then name them.

2 a

A **pentagon** has **5 corners**. It also has **5 sides**.

A **hexagon** has **6 corners** and **6 sides**.



b heptagon

_____ corners

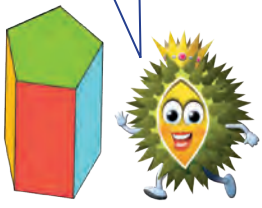
_____ straight sides

c octagon

_____ corners

_____ straight sides

If the base of this prism is traced out, what shape is formed?



Which regular polygon is formed when the six triangles above are combined together?

LET'S TRY

Name the polygons that have the following characteristics.

a 6 corners, 6 straight sides

b 8 corners, 8 straight sides

c 7 straight sides, 7 corners

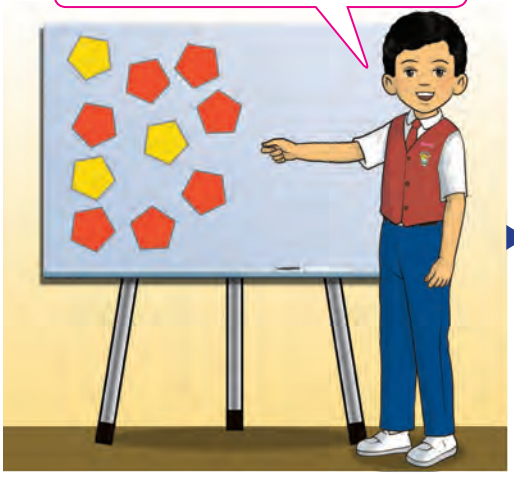
- Carry out activities to build polygon frames using matchsticks and straws.
- Carry out quizzes to identify polygons based on pictures of situations.

7.3.1

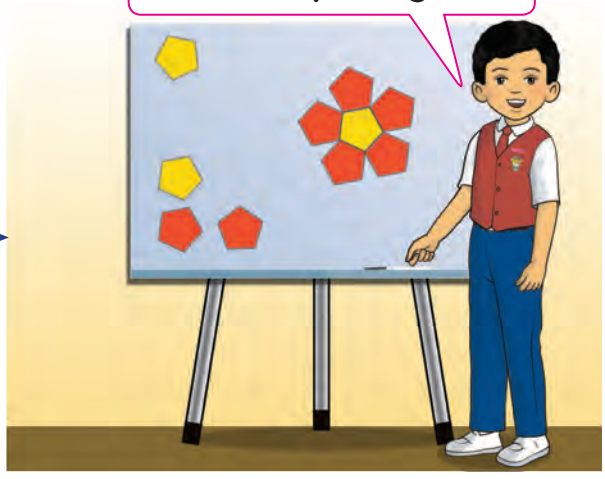
CREATE PATTERNS

1

I want to make patterns from these pentagons.



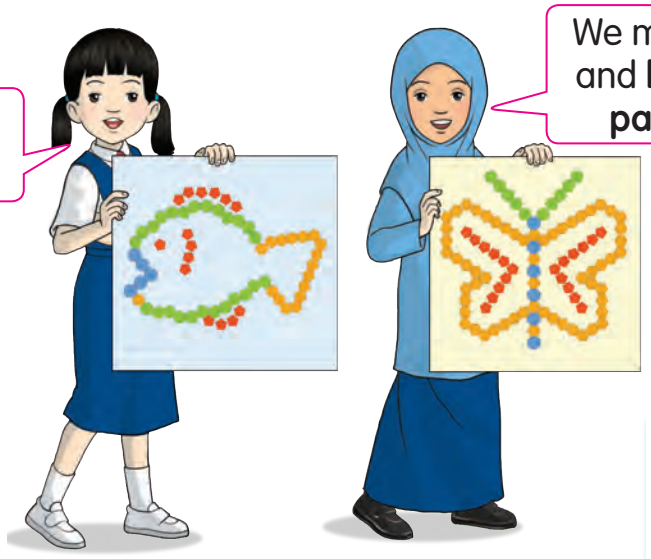
This is a **flower pattern**. I used **6 pentagons**.



2

We pasted colourful polygons.

We made **fish** and **butterfly patterns**.



What is the shape used in this pattern?

LET'S TRY

Try and make your favourite pattern.

AB 134, 155 TEACHER'S NOTES

- Carry out a contest to make patterns based on pupils' creativity.

7.3.2

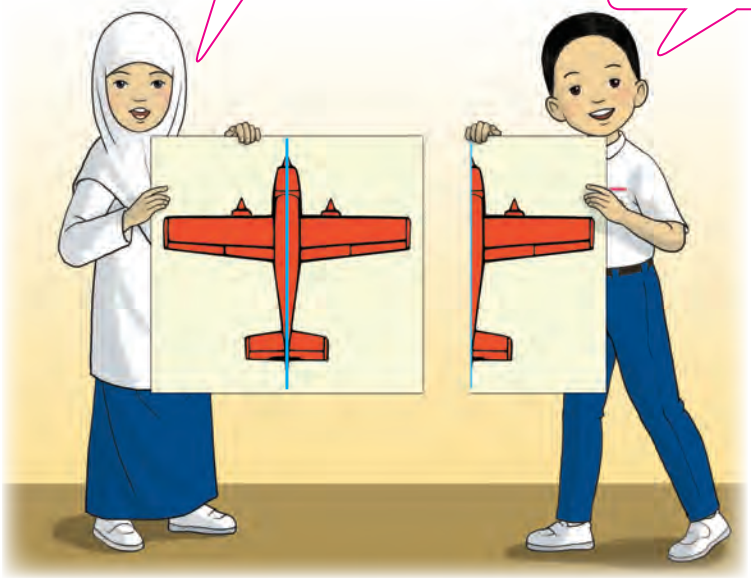
KPM

AXIS OF SYMMETRY

1

If this picture is folded along the blue line, both parts will overlap each other exactly.

This **blue line** is called the **axis of symmetry**.

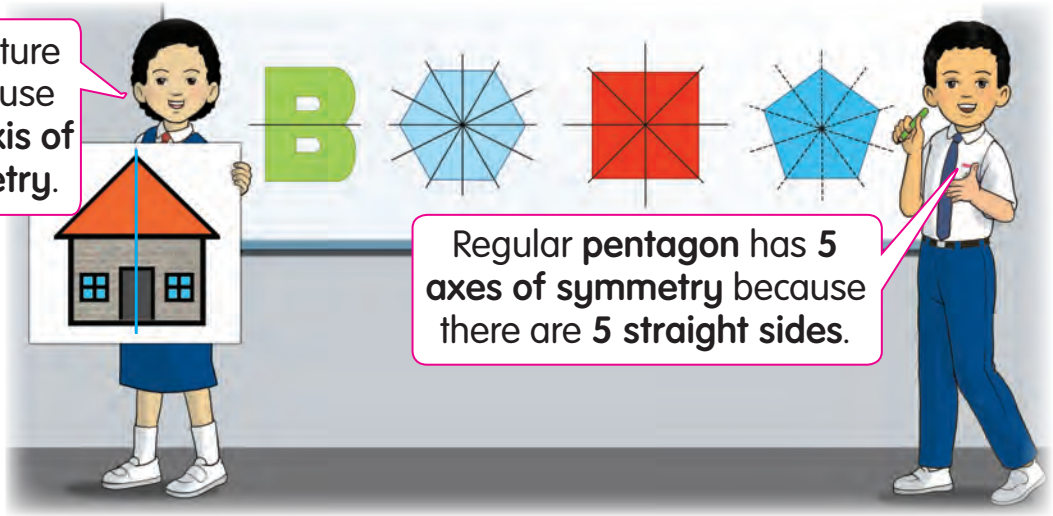


AXIS OF SYMMETRY

A straight line that divides any shape or diagram into two equal parts of the same shape and size.

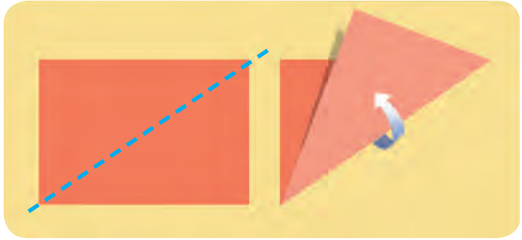
2

This picture of a house has **1 axis of symmetry**.



Regular **pentagon** has **5 axes of symmetry** because there are **5 straight sides**.

Look at the picture. Is the blue line an axis of symmetry?



AB 135 TEACHER'S NOTES

- Emphasise that the axis of symmetry occurs with three-dimensional and two-dimensional shapes. Discuss the axes of symmetry of heptagon and octagon.
- Carry out activities to explore the axis of symmetry using various shapes inside and outside the classroom.

7.4.1

FUN PROJECT

Tools/Materials paper shirt, pen, ruler

Method

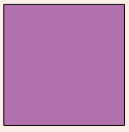
1 Fold the paper shirt until one part overlaps exactly on the other part.

2 Unfold the paper shirt. Draw a line along the fold.

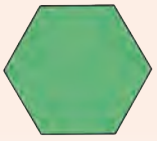
3 Label the axis of symmetry.

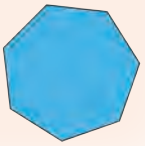
LET'S TRY

How many axes of symmetry do these shapes have?

a 

b 

c 

d 

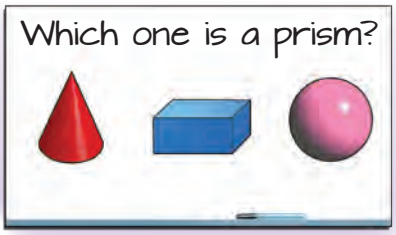
TEACHER'S NOTES

- Guide pupils to explore axes of symmetry by drawing lines of symmetry on picture cards of various shapes, by folding and cutting paper, as well as using MS Word.
- Modify and use various materials or objects to find axes of symmetry.

7.4.1

SOLVE THE PROBLEMS

1 Puan Salina sticks three pictures on the whiteboard. She asks Azian to choose a picture of a prism. Which picture is chosen by Azian? Why?



Given pictures of a cone, cuboid, and sphere

Find picture of a prism

Method make a checklist table

Shape \ Characteristics of prism	5 or more flat surfaces	2 opposite surfaces of the same shape (base)	no curved surfaces
Cone	✗	✗	✗
Cuboid	✓	✓	✓
Sphere	✗	✗	✗

A **cuboid** is a rectangular **prism**.

Azian chooses  because it has **6 flat surfaces**, **its opposite surfaces are of the same shape**, and **it has no curved surfaces**.

2 Wong cuts a shape. It has 2 corners more than a pentagon. What is the shape?

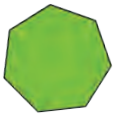
Method trial and error 1

 hexagon

6 corners, 1 corner more than a pentagon

NO

trial and error 2

 heptagon

7 corners, 2 corners more than a pentagon

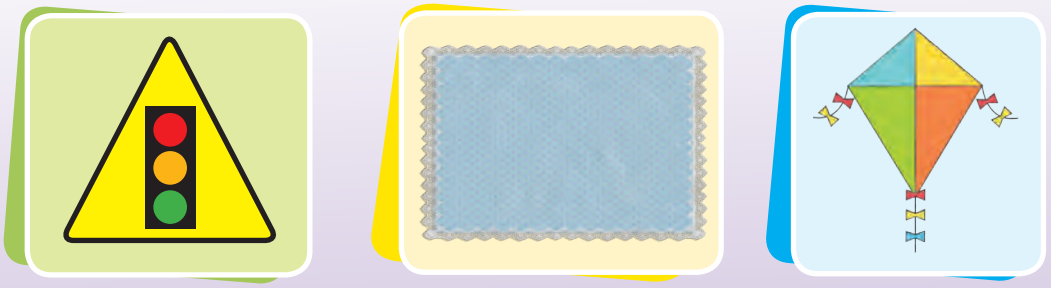
YES

The name of the shape is **heptagon**.

TEACHER'S NOTES

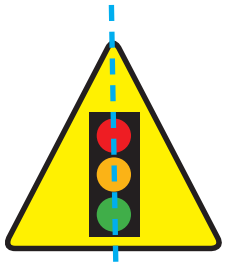
- Give more problem-solving questions using checklist tables or trial and error method to reinforce pupils' understanding.

3 Chin has three picture cards.

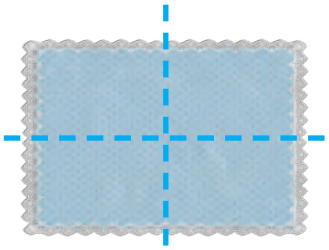


He asks Zaki to select a picture card that has more than one axis of symmetry. Which picture card does Zaki take?

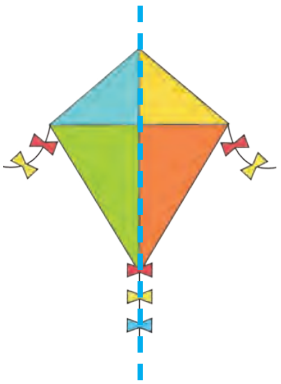
Method draw axis of symmetry



1 axis of symmetry



2 axes of symmetry



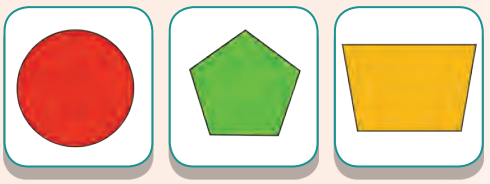
1 axis of symmetry

Zaki takes the **picture card of a handkerchief**.

LET'S TRY

Solve the problem.

Jaslina has three flash cards.
She chooses a regular polygon card.
Which card has she chosen?
Give your reasons.



AB 136 TEACHER'S NOTES

- Encourage pupils to explore other ways to determine axis of symmetry such as folding picture cards.
- Emphasise that there are shapes that have more than one axis of symmetry.

7.5.1

FUN TIME

WHO IS THE WINNER?

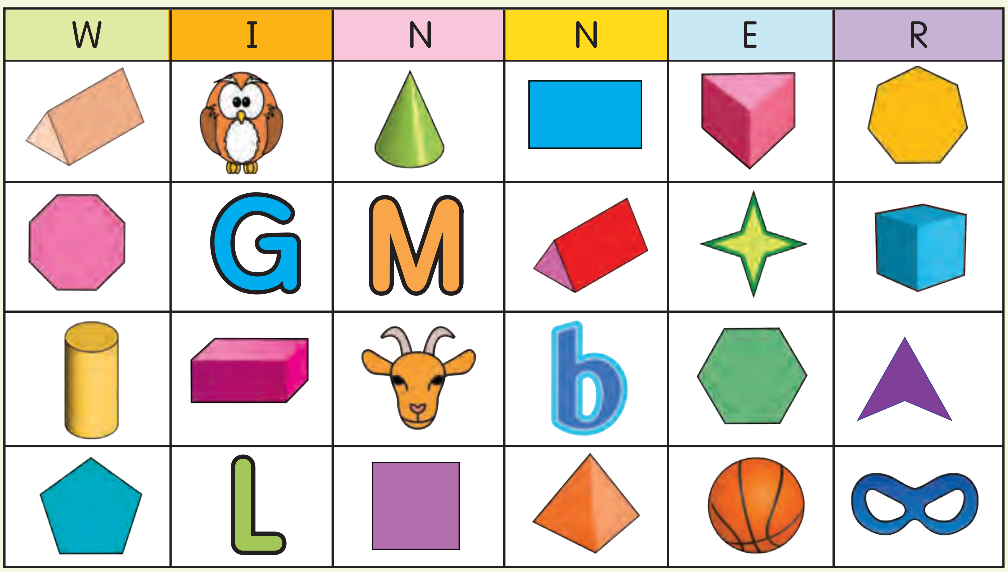
Tools/Materials question cards, 3 blue chips, 3 yellow chips, 3 red chips

Participants 3 pupils per group

QUESTION CARDS

NO AXIS OF SYMMETRY	8 VERTICES	ONE AXIS OF SYMMETRY	PRISM	PENTAGON
FOUR AXES OF SYMMETRY	HEPTAGON	NON-PRISM	OCTAGON	TWO AXES OF SYMMETRY

GAME BOARD



Method

1. Put all the question cards face down. The first player picks a card. Find the answer on the game board.
2. Place a chip on the answer that matches the question on the game board.
3. The next player takes his/her turn.
4. The player who places three chips of ↔ , ↕ , ⤢, or ⤡ first, is the winner.

AB 137-138 TEACHER'S NOTES

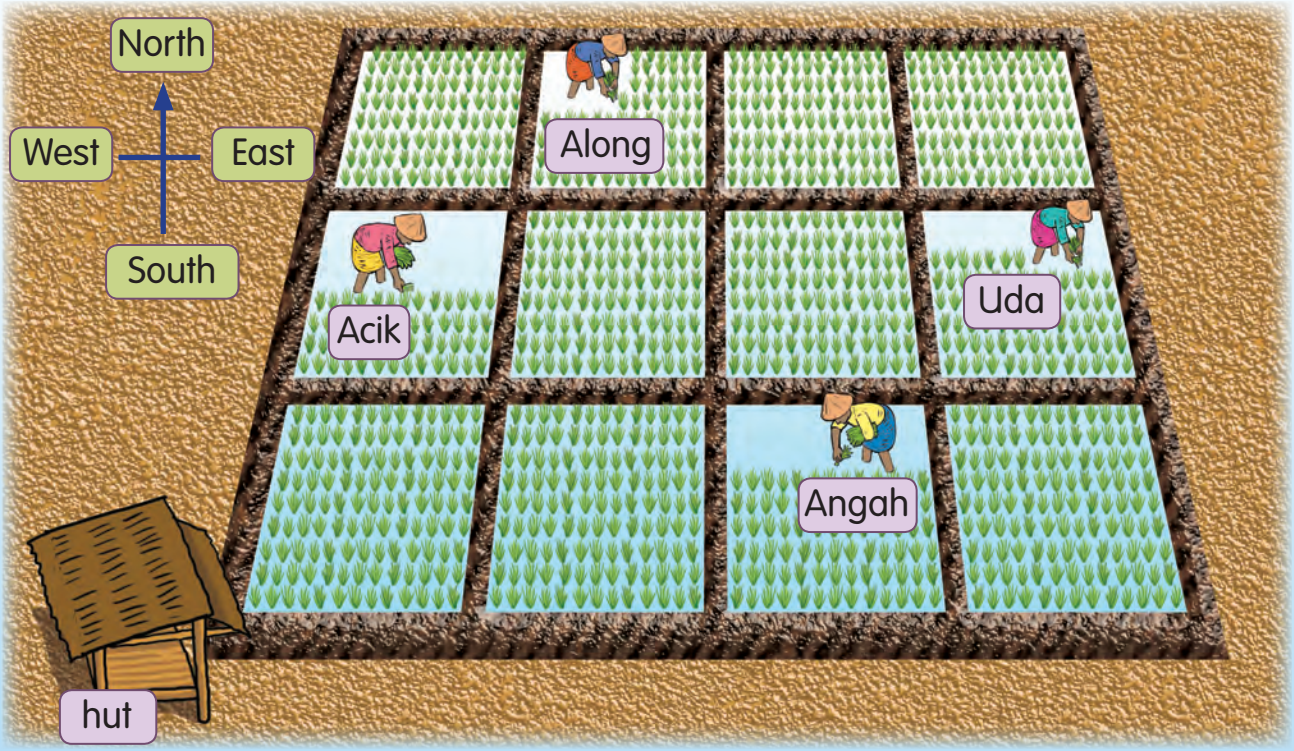
- Ask pupils to decide on the order of players and set of coloured chips. A player loses a turn for an incorrect answer.
- Instil cooperation, tolerance, and honesty while playing.

7.1.1, 7.1.2, 7.2.1, 7.3.1, 7.4.1

8 LOCATION

RECOGNISE LOCATION

1 The picture shows 4 family members planting paddy seedlings. Their paddy field has 4 columns and 3 rows.



Angah is at **3 squares to the right** and **1 square to the top** from the hut.

Acik is at **column 1, row 2**.

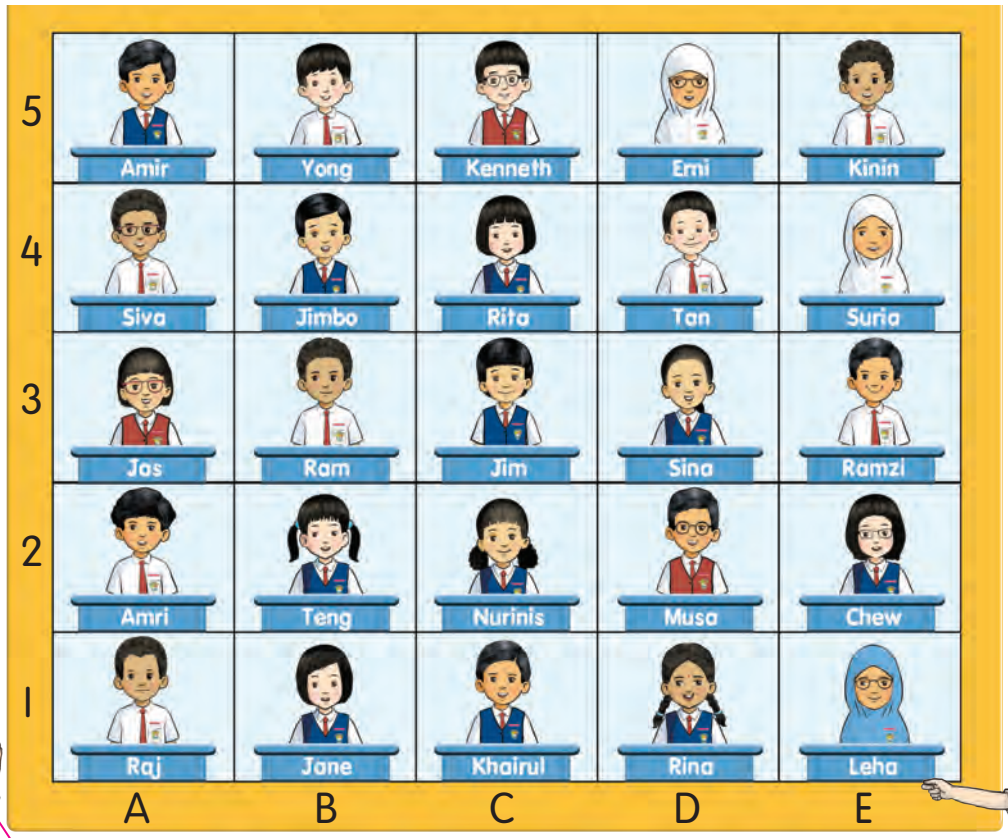
Along is at **2 squares to the east** and **3 squares to the north**.

Where is Uda?

- Emphasise that the location of an object must be referred to a reference point.
- Guide pupils to state the location of an object using words such as to the right for east, to the top for north, left, backwards, column, and row. Explain about north and east on the points of a compass.
- Carry out activities to state pupils' locations from the teacher's table in the classroom.

AB 139 TEACHER'S NOTES

2 The location of pupils during a test.



1 to 5 is on the **vertical axis**.

A to E is on the **horizontal axis**.

a Who sits at A3?

Jas sits at **A3**.

b The class monitor sits at **D4**.

Tan is the class monitor.

c The pupil at **C5** is a prefect.

The pupil is ____.

The location of an object is written using the horizontal axis first, followed by the vertical axis.

Who are at A2, B1 and E3?

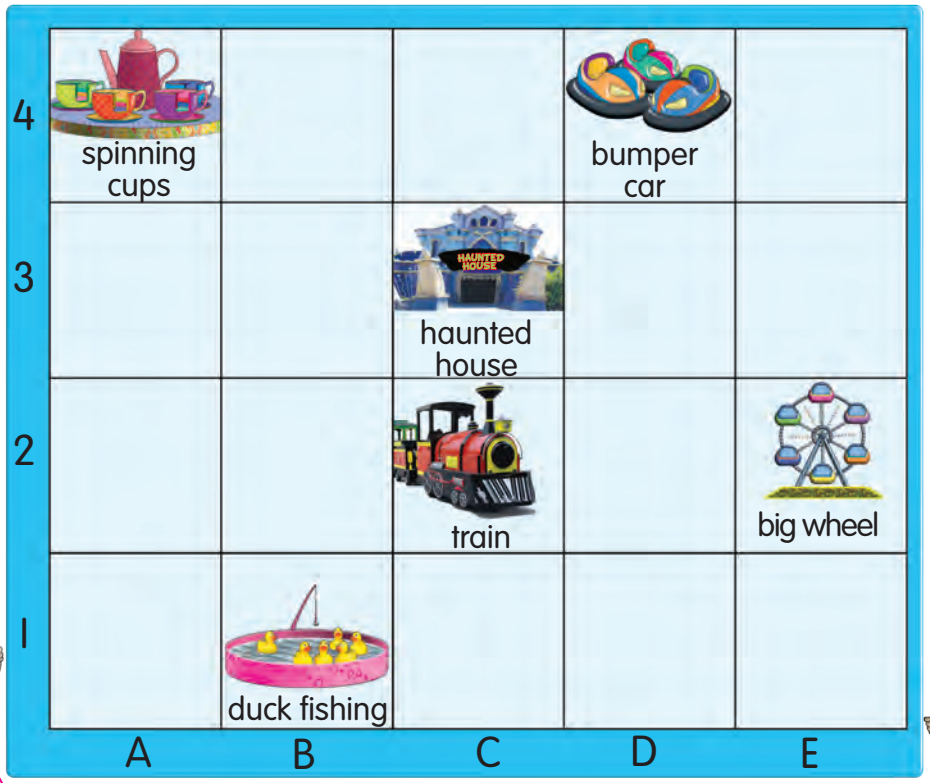
KPM

TEACHER'S NOTES

- Guide pupils to state the location of objects based on the horizontal and vertical axes.
- Ask pupils to name other pupils based on their location in the diagram above.

8.1.2

3 Picture of location of games in a funfair.



The **vertical axis** is **rows**.

The **horizontal axis** is **columns**.

a What game is in the same column as the haunted house?
The **train** is in the same column as the **haunted house**.

b What game is at row 4?
Spinning cups and **bumper car** are at row 4.

c Complete the table of location of games below.

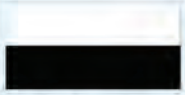
Location	E2	A4	C3	B1
Game	big wheel	spinning cups		

AB 140-141 TEACHER'S NOTES

- Guide pupils to carry out paper-folding activities to make grids and paste pictures of objects they like on the grid. Pupils use the grid to state the location of objects on the grid.

LET'S TRY

State Flags

	A	B	C	D	E
5		 Johor		 Sabah	 Kelantan
4		 Kedah	 Pulau Pinang		 Terengganu
3	 Perlis			 Selangor	 Negeri Sembilan
2		 Wilayah Persekutuan	 Melaka		
1	 Sarawak			 Pahang	 Perak

Complete the following.

a The Kedah state flag is 2 squares to the ____ and ____ squares to the top.

b The Perlis state flag is at column ____.

c The Melaka state flag is at row ____.

d The ____ state flag is at A1.

e The ____ flag, the state that is also known as the Land Below the Wind is at D5.

TEACHER'S NOTES

- Provide a variety of exercises to identify the location of objects in everyday life such as the location of decorative items on racks.

8.1.1
8.1.2

DETERMINE LOCATION

Traditional Game Stations

	A	B	C	D	E
5	hopscotch				spinning tops
4				marbles	
3			congkak		
2		baling tin			
1	*tating lawi ayam*			*batu seremban*	

SCAN THIS

State the location of the **marbles** station.

The **marbles** station is at **column D**, **row 4**.
Its location is **D4**.

The **spinning tops** station is at **E5**.

The ***baling tin*** station is at **B2**.

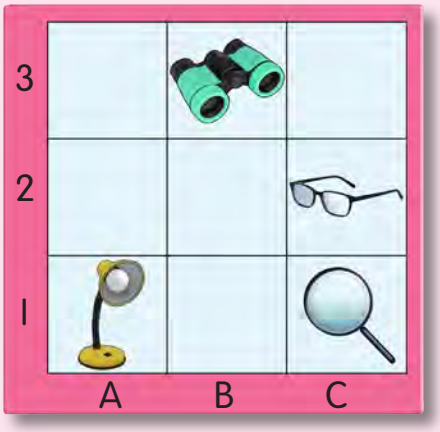
The ***tating lawi ayam*** station is at ____.

Among the *congkak*, hopscotch, and *batu seremban* stations, which station is the nearest to the marbles station?

AB 142 TEACHER'S NOTES

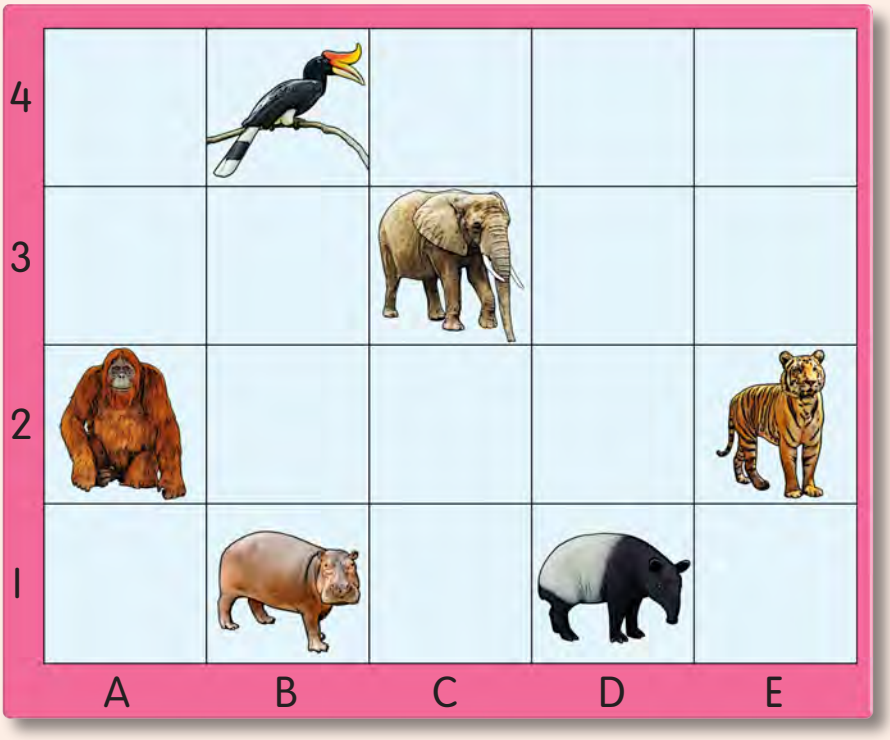
- Guide pupils to write the location of objects by indicating the horizontal axis first, followed by the vertical axis.
- Discuss traditional games.

Liew wants to read a storybook. He has weak eyesight. What is the location of the object that he needs?



LET'S TRY

Look at the location of animal enclosures in a zoo.
State the location of enclosure of:



(a) elephant. (b) tapir. (c) tiger.

(d) hippopotamus. (e) orangutan. (f) hornbill.

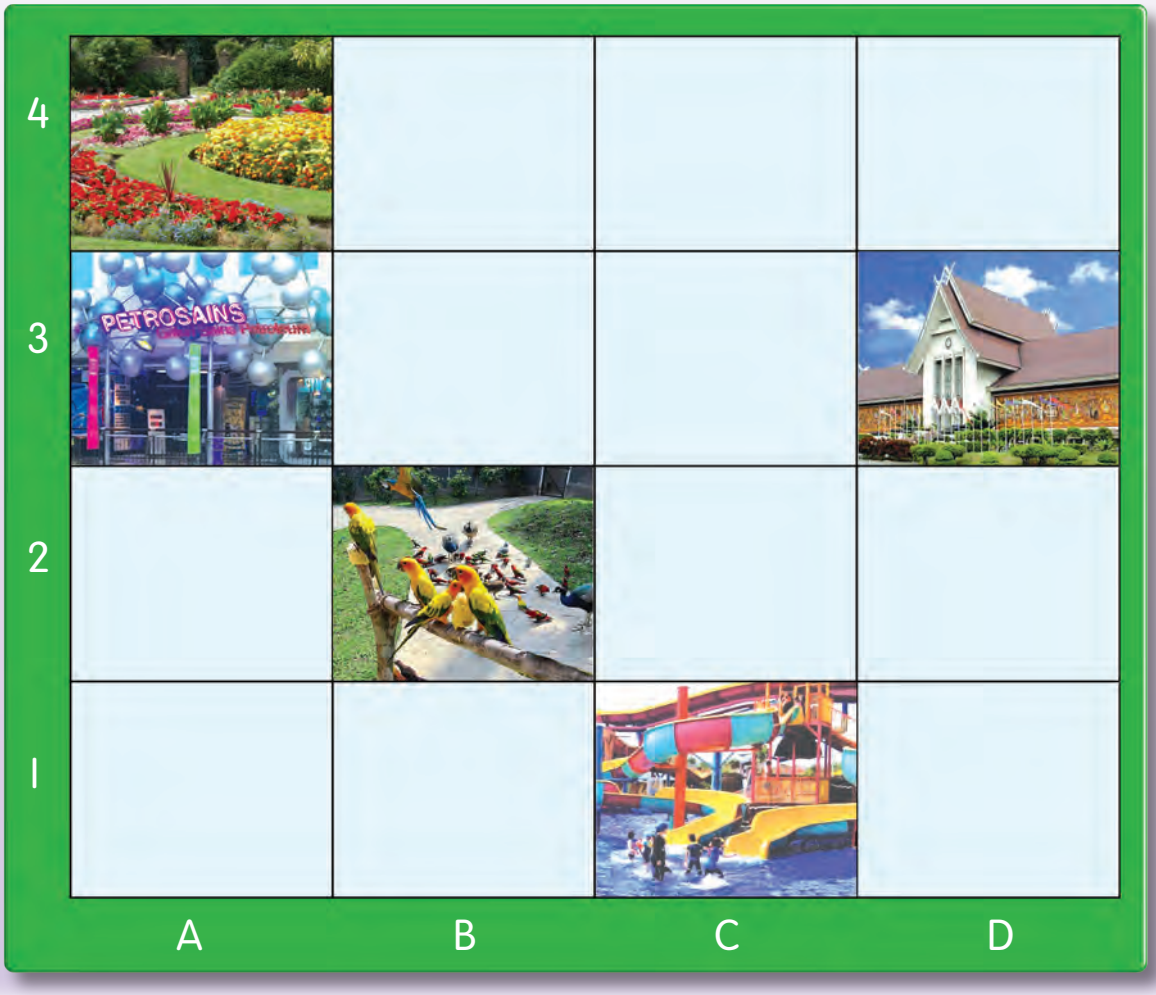
TEACHER'S NOTES

- Guide pupils to label horizontal and vertical axis on the chessboard. Ask pupils to state the locations of the King, Castle, Queen, Knight, Pawn, and Bishop.

8.1.3

SOLVE THE PROBLEMS

1 The picture shows the locations of a flower garden, Petrosains, museum, bird park, and theme park. Encik Karim took his family to A3 during the school holidays. Where did they go?



Given the picture of the place at A3

Find name of the place

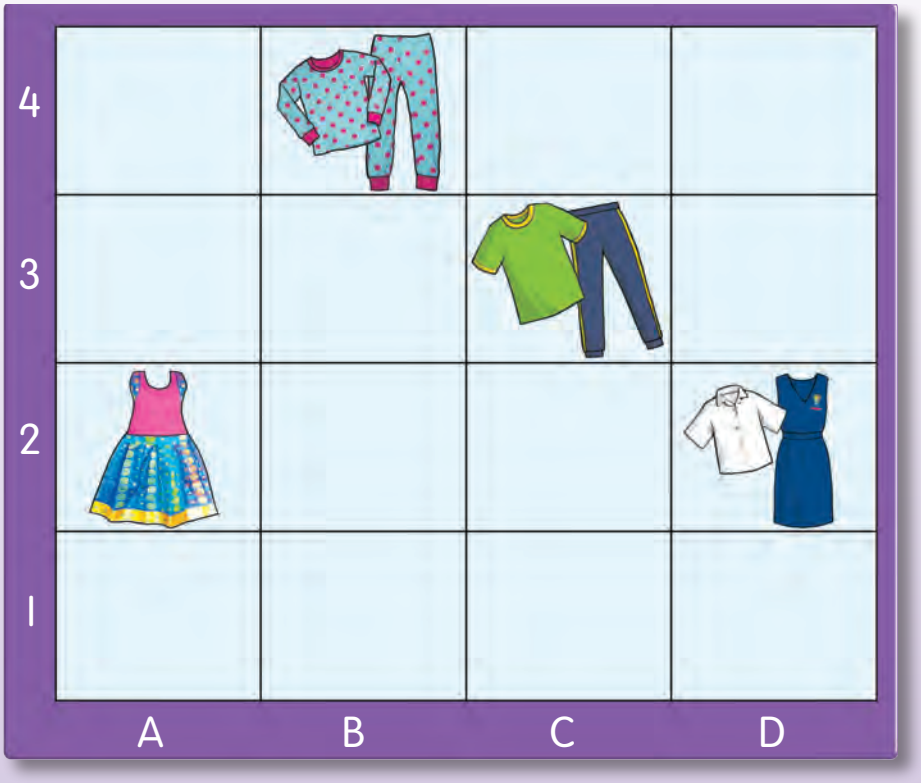
Method Look at column A, row 3. The place at A3 is Petrosains.

They went to **Petrosains**.

TEACHER'S NOTES

- Using the situation above, ask pupils orally about the location of other places of interest to visit.
- Ask pupils to talk about the benefits of visiting the places above.

2 A picture of the location of four types of clothing.



Rekha is taking part in a telematch.
What type of clothing is suitable?
State the location.

Given taking part in a telematch

Find most suitable type of clothing and their location

Method Make a table.

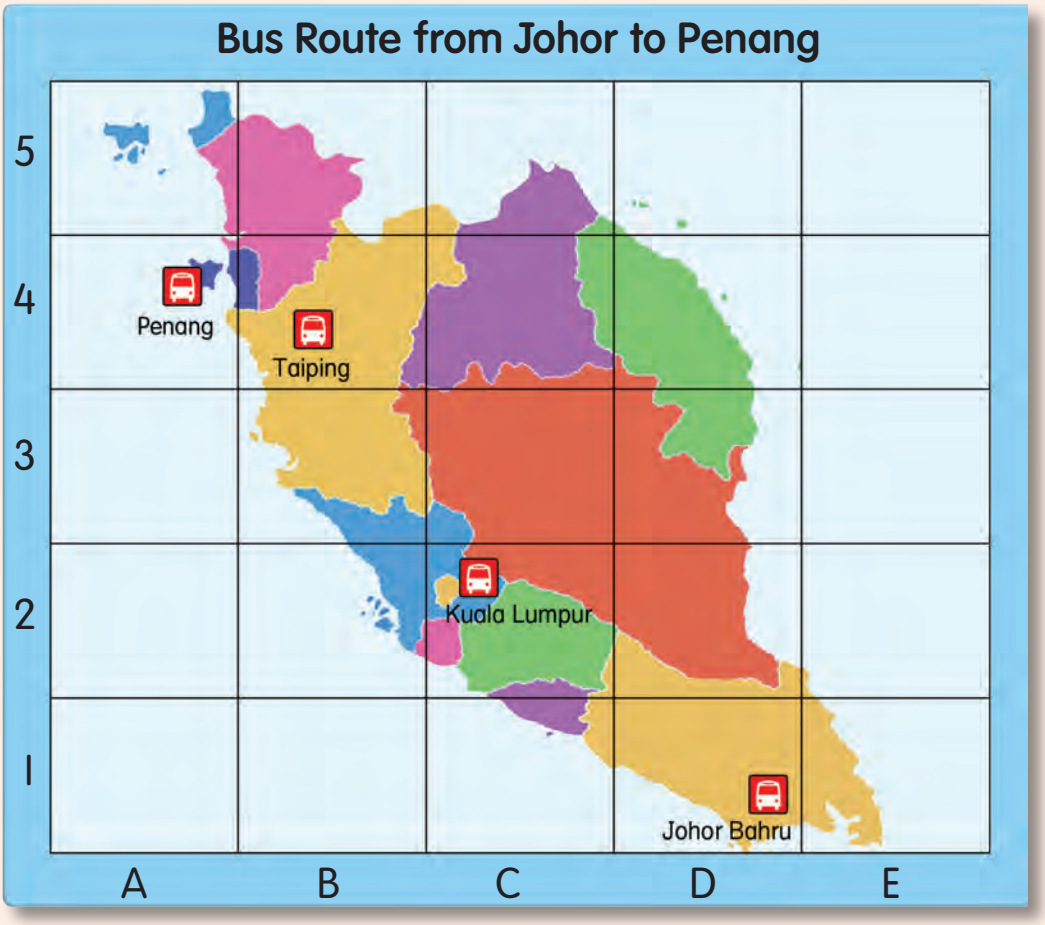
Clothing	dress	pyjamas	sportswear	school uniform
Suitable	✗	✗	✓	✗
Location	A2	B4	C3	D2

The most suitable type of clothing is sportswear.
Their location is at **C3**.

- Provide various problem-solving questions and carry out simulation activities in the classroom to reinforce pupils' understanding such as to find the locations of a house, school, mosque, mall, and hospital.

LET'S TRY

Solve the problem below.



Swee Lin and her mother are taking a bus from Johor Bahru to Penang. The bus stops for a break at C2. After three hours, the bus stops at Taiping. State:

a) the location of the bus terminal in Johor Bahru.

b) the location of the bus terminal in Penang.

c) the rest area at C2.

d) the location of the rest area in Taiping.

TEACHER'S NOTES

- Provide various problem-solving questions like the location of other states on the grid.
- Use maps of Sabah and Sarawak to name the location of tourist spots.

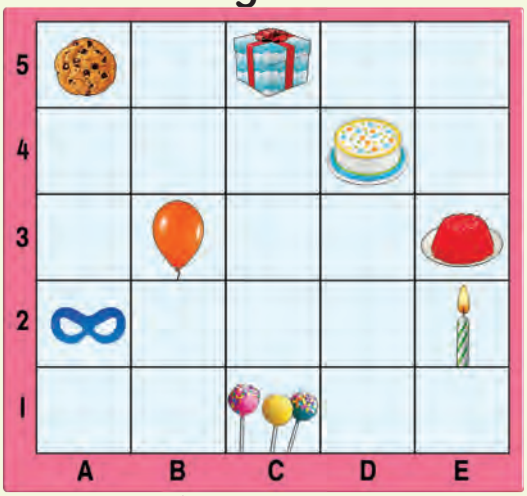
FUN TIME

TOSS AND WIN

Tools/Materials pencil, rubber, dough

Participants 3 pupils per group and a referee

Play Grid



Score Table

Object				
Marks	2	3	4	1
Object				
Marks	5	4	2	3

Method

1. Determine the referee and the players' turns.
2. Each player takes turns to toss the dough three times onto the play grid.
3. Write the location of the dough on the picture.
4. Record your marks based on the score table.

Player / Toss	First		Second		Third	
	Dough location	Marks	Dough location	Marks	Dough location	Marks
1						
2						
3						
Total						

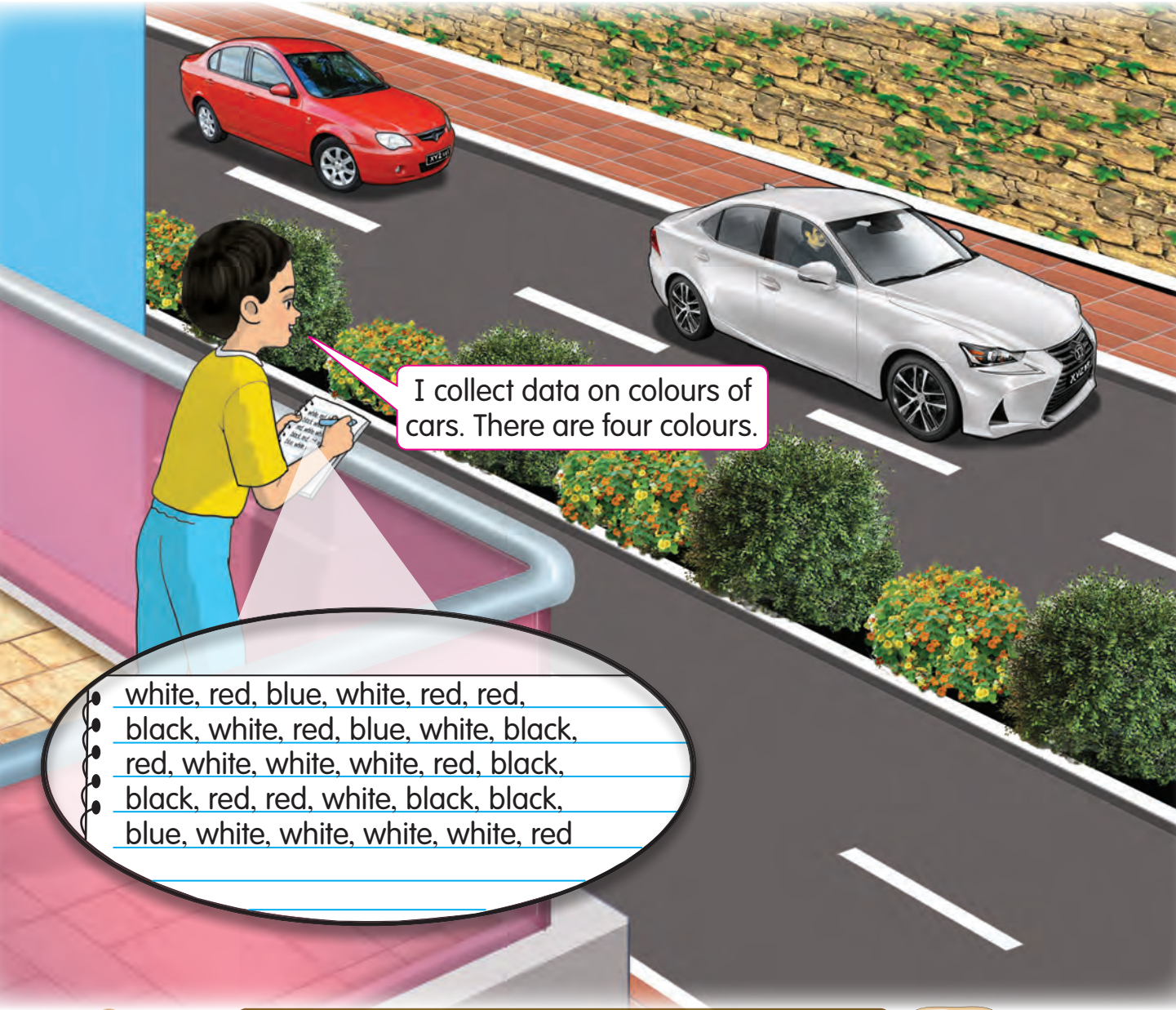
5. The player with the highest marks wins.

- Modify the game to suit the school situation. For example, use tiles, mahjong papers, and other suitable materials.
- Instil values of cooperation and tolerance.

9 DATA

COLLECT, CLASSIFY, AND SORT DATA

1 Anuar collects data on colours of cars that pass by in front of his house.



TEACHER'S NOTES

- Guide pupils to collect, classify, and sort data. Ask pupils to draw tables to sort the collected data.

2

Let's classify and sort this data.

Data of colours of cars

white, red, blue, white, red, red,
black, white, red, blue, white, black,
red, white, white, white, red, black,
black, red, red, white, black, black,
blue, white, white, white, white, red

Method 1

Colour of car	Tally	Number
White	𝍸 𝍸 II	12
Red	𝍸 IIII	9
Blue	III	3
Black	𝍸 I	6

Method 2

Colour of car	Tick	Number
White	✓✓✓✓✓ ✓✓✓✓✓	12
Red	✓✓✓✓✓ ✓✓✓✓	9
Blue	✓✓✓	3
Black	✓✓✓✓✓	6

Which method is easier?

LET'S TRY

The data shows the favourite juice of a group of pupils. Classify and sort the data in a table. Make a tally.

Rina	Alia	Lin	Muna	Hani	Ramesh	Lim	Linda	Hilmi	Nelson
Sali	Ranjit	Aileen	Chew	Nina	Haziq	Samuel	Nabila	Siew May	Harith
Kumar	Nadim	Sarah	Lokman	Nani	Adam	Maya	Wani	Ana	Vinod

AB 147 TEACHER'S NOTES

- Show examples of data that pupils can collect.
- Guide pupils to collect data using various methods such as through observations, questionnaires, and interviews.

9.1.1

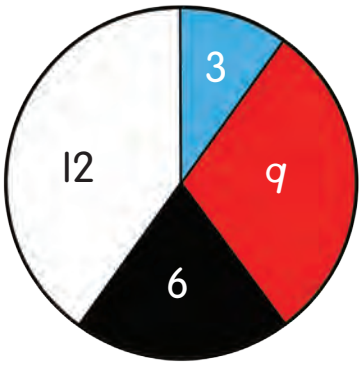
RECOGNISE PIE CHART

The data below is displayed in a circle.
This is known as **pie chart**.

The **largest part** shows the **most number of cars**.

Observation Colours of Cars

Title



Key:

- Blue car
- Red car
- Black car
- White car

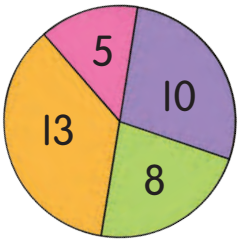
White cars are the most. There are **12 cars**.

Four colours of cars are observed.
The number of red cars is ____. There are ____ black cars.
The least number of cars is ____.

LET'S TRY

Look at the pie chart and complete the sentences below.

Pupils' Birth Months



Key:

- March
- April
- June
- August

a) There are ____ pupils born in March.

b) The number of pupils born in the month of ____ is the least, with ____ pupils.

c) The birth month of the largest number of pupils is ____.

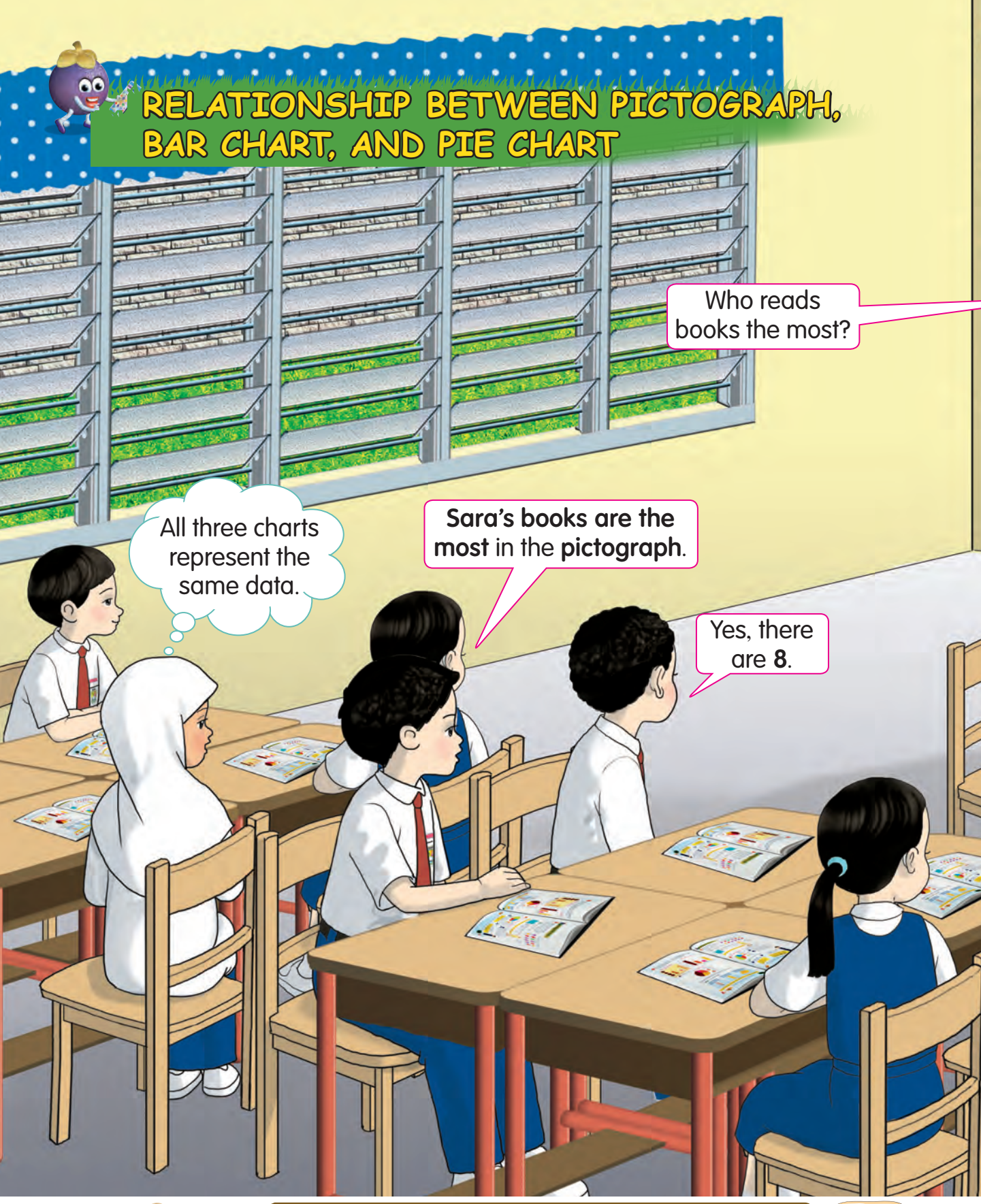
AB 148 TEACHER'S NOTES

- Carry out question and answer activities to obtain information from pie charts.

9.2.1

KPM

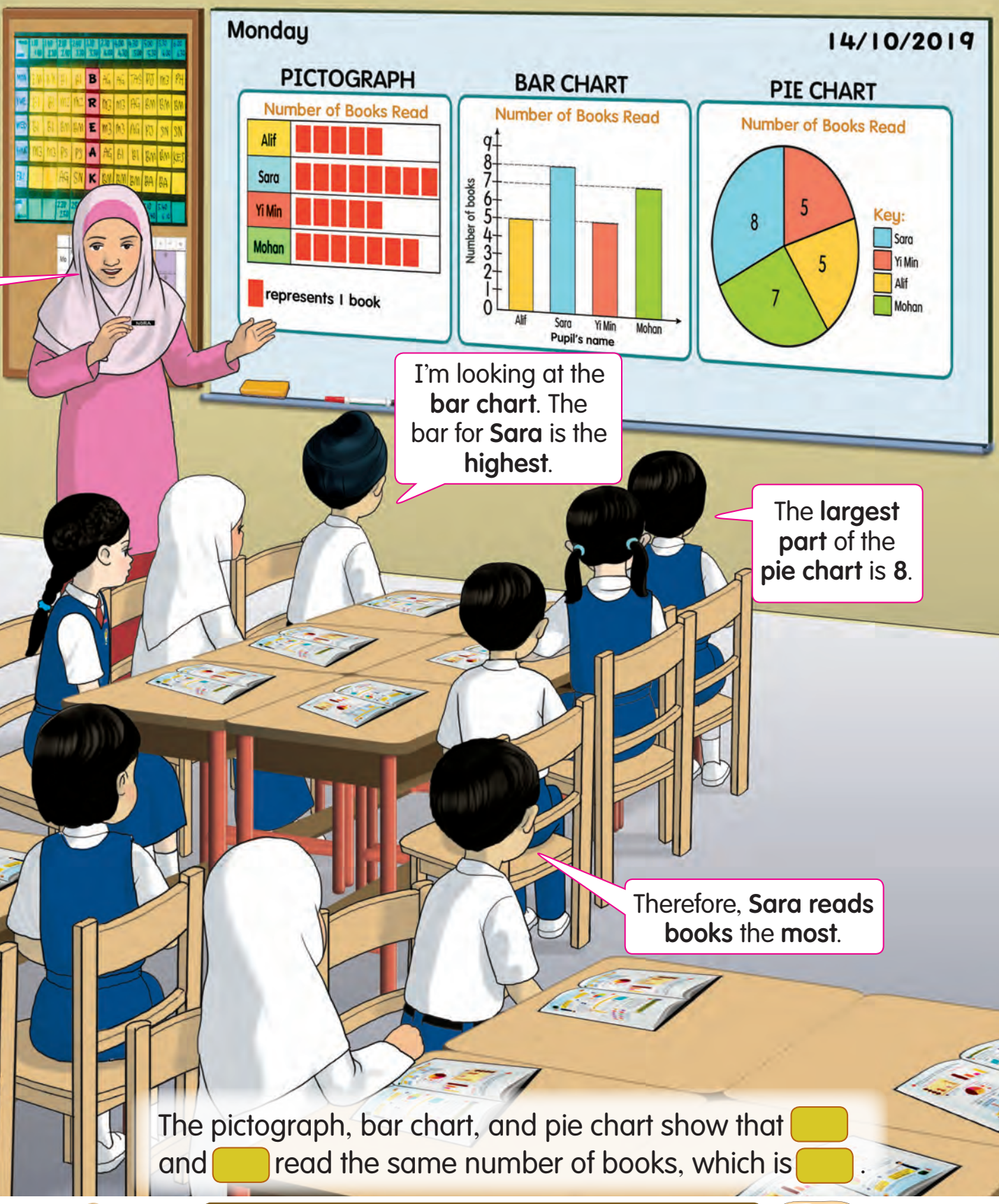
RELATIONSHIP BETWEEN PICTOGRAPH, BAR CHART, AND PIE CHART



TEACHER'S NOTES

- Guide pupils to relate similar information displayed in pictographs, bar charts, and pie charts.
- Discuss the difference in ways of representing data between the three charts.

9.3.1



The pictograph, bar chart, and pie chart show that ____ and ____ read the same number of books, which is ____.

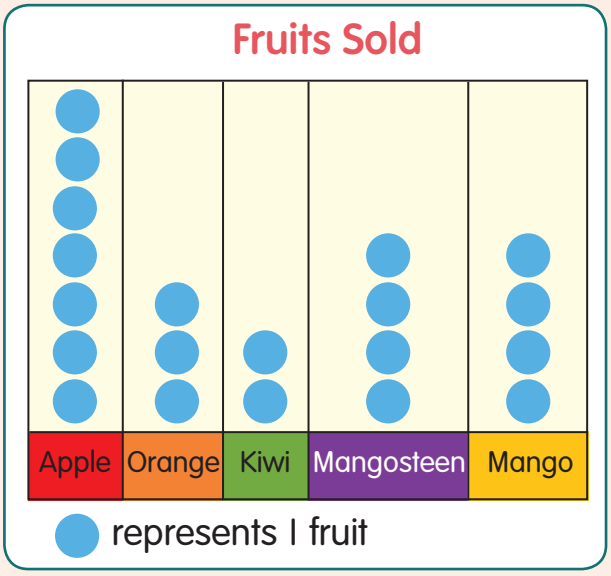
AB 149-150 TEACHER'S NOTES

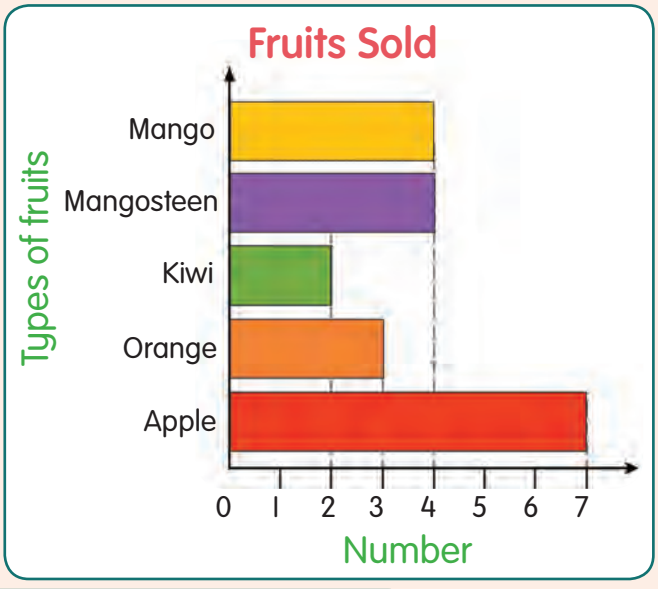
- Carry out activities of reading information and answering questions based on pictographs, bar charts, and pie charts that represent the same data.

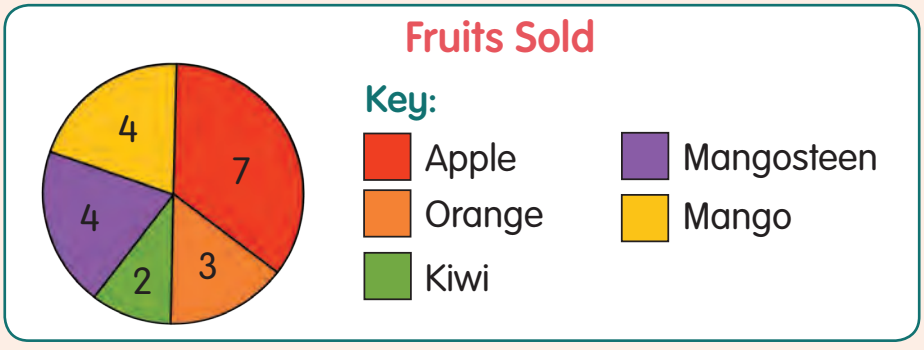
9.3.1

LET'S TRY

Look at the data of fruits sold by Young Entrepreneurs Club.
Complete the sentences below.







a The title of the pictograph, bar chart, and pie chart is _____.

b The symbol ● in the pictograph and 1 graduation of the bar chart represents _____.

c The symbol ●, which is the most, the longest bar, and the largest part, shows that the _____ is sold the most.

d The _____ is sold the least and is represented by 2 ● symbol, the shortest bar, and the smallest part.

TEACHER'S NOTES

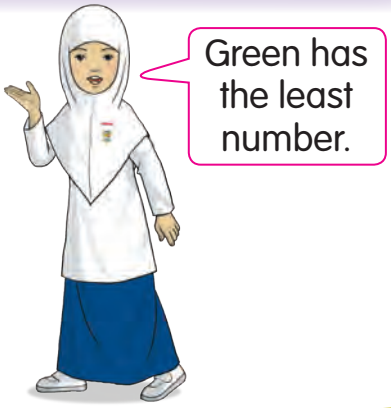
- Provide various questions to show the connection between pictographs, bar charts, and pie charts to reinforce pupils' understanding.

SOLVE THE PROBLEMS

1 Sukdev collects data of his 12 friends' favourite colours. Which is the least favoured colour?

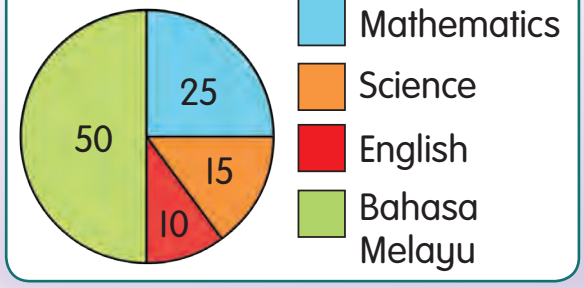
Method Arrange the data in a table.

Colour	Purple	Red	Green	Yellow
Tally	𝍸	𝍸	𝍸	𝍸
Number	5	4	1	2



The least favoured colour is **green**.

2 Study the pie chart of the favourite subjects of 100 pupils.



a How many pupils like Mathematics?

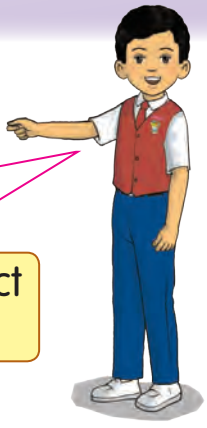
b Which is the most favoured subject?

Method Look at the parts of the pie chart.

a The blue part is for Mathematics.

25 pupils like Mathematics.

b



The most favoured subject is **Bahasa Melayu**.

TEACHER'S NOTES

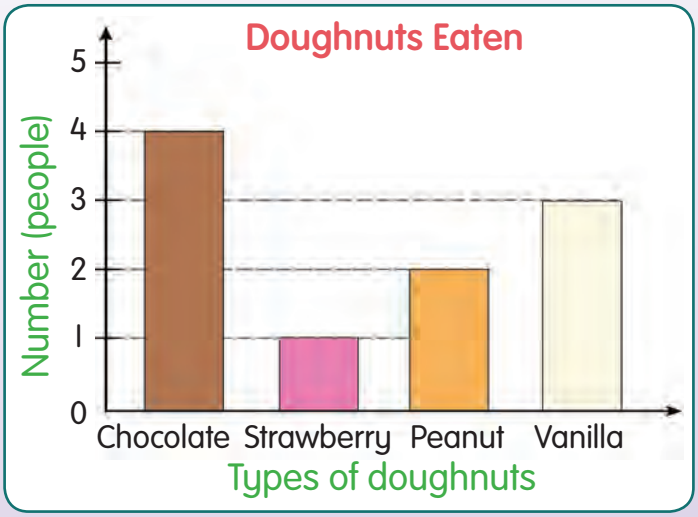
- Guide pupils to understand the problems given. Discuss suitable strategies to solve them.

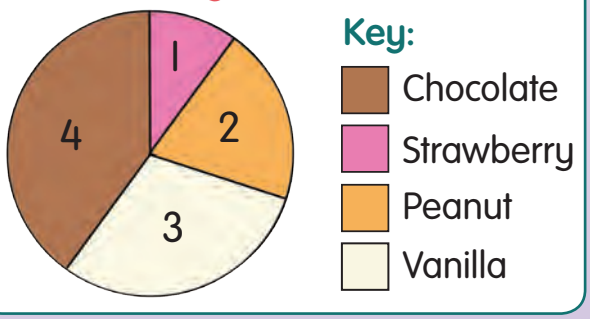
3 The pictograph, bar chart, and pie chart below show the number of doughnuts eaten by 10 children.

Doughnuts Eaten

Chocolate	Strawberry	Peanut	Vanilla
4	1	2	3

represents 1 person





State the type of doughnut eaten the most.

Method Look at the following.

Pictograph	Bar Chart	Pie Chart
the most number of symbols	the highest bar	the largest part
Chocolate doughnut	Chocolate doughnut	Chocolate doughnut

The type of doughnut eaten the most is **chocolate**.

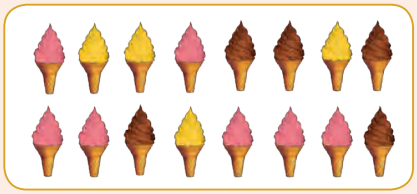
- Provide various types of questions involving the relationship between pictographs, bar charts, and pie charts to reinforce pupils' understanding.

9.3.1
9.4.1

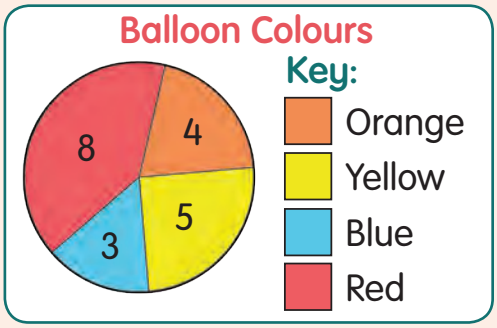
LET'S TRY

Solve the following problems.

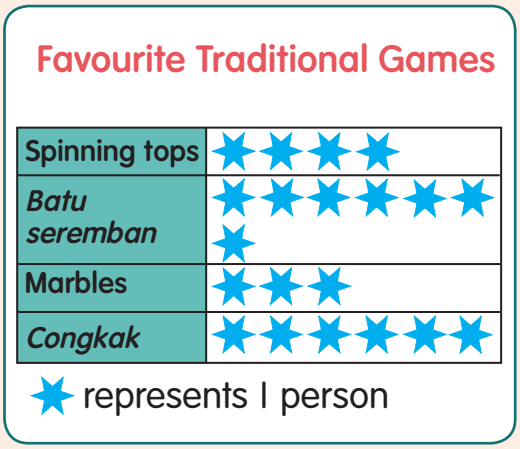
a The data shows the favourite ice cream flavours of 16 children. Which ice cream flavour is the most favoured?

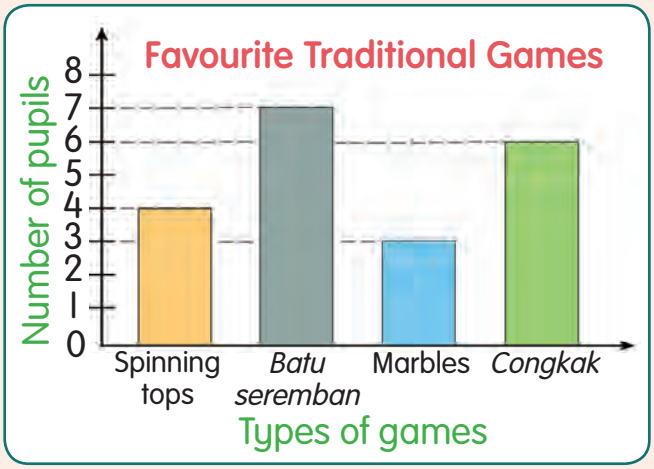


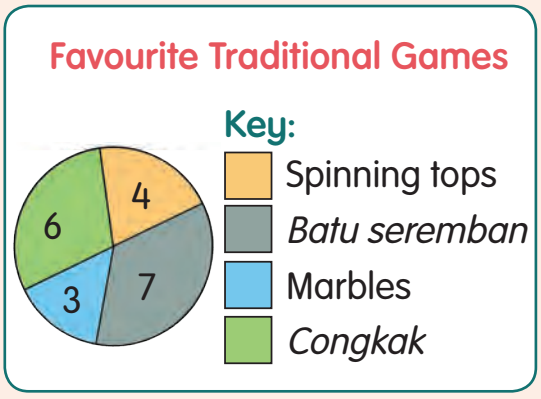
b The pie chart shows the colours of balloons in a birthday party. Which colour is the least?



c Look at the pictograph, bar chart, and pie chart.







State the most favoured game.

TEACHER'S NOTES

- Provide more exercises suited to pupils' ability using worksheets or question cards.

FUN TIME

MAKE A PIE CHART

Tools/Materials pie chart cards, data cards, pen

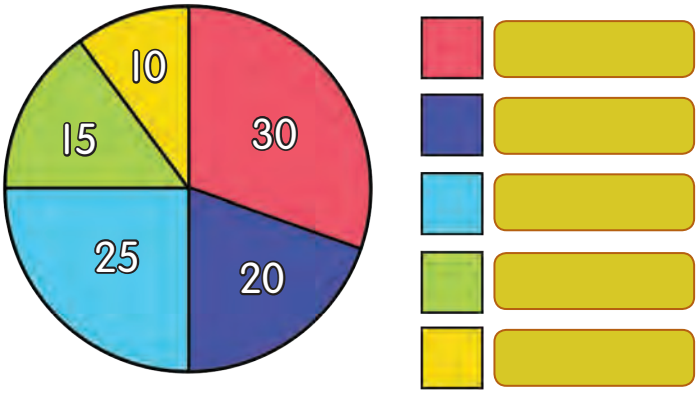
Participants 2 pupils per group

Example of Data Card

Kuih	Number of pupils
	30
	20
	25
	15
	10

Example of Pie Chart Card

Favourite *Kuih*



Method

1. Each group takes a pie chart card and a data card.
2. Create one item or data and fill in the table.
3. Write down the data in the pie chart.
4. Write down three information found in the pie chart.
5. In groups, discuss to obtain additional information.

- Prepare sufficient numbers of suitable pie chart cards and data cards.
- Guide pupils to carry out the activity above.
- Suggest data such as number of storybooks read and favourite fruit.

9.1.1
9.2.1

Dengan ini, **SAYA BERJANJI** akan menjaga buku ini dengan baiknya dan bertanggungjawab atas kehilangannya, serta mengembalikannya kepada pihak sekolah pada tarikh yang ditetapkan.

Skim Pinjaman Buku Teks

Sekolah _____

Tahun	Darjah	Nama Penerima	Tarikh Terima

Nombor Perolehan: _____

Tarikh Penerimaan: _____

BUKU INI TIDAK BOLEH DIJUAL