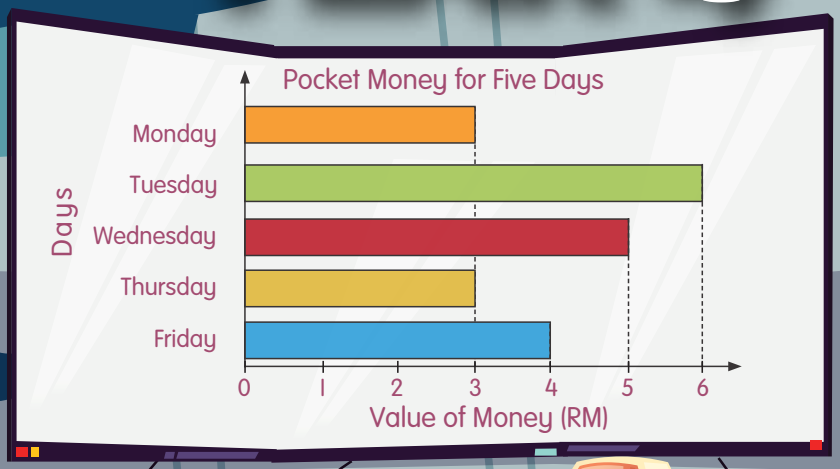
KEMENTERIAN PENDIDIKAN MALAYSIA

MATHEMATICS YEAR 4



KURIKULUM STANDARD SEKOLAH RENDAH
KSSR
(SEMAKAN 2017)
KEMENTERIAN PENDIDIKAN MALAYSIA

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

MATHEMATICS

YEAR 4

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PREFACE

The publication of the Standard-Based Curriculum for Primary School (Revised 2017) textbook has reached the second level with the publication of the *Mathematics Year 4* Textbook. The writing of this textbook is based on the National Philosophy of Education, National Education Policy, and the Malaysia Education Blueprint (PPPM) 2013-2015. It is hoped that the emphasis on inquiry-discovery and project-based learning supported by continuous assessment methods, as well as the integration of the six KSSR fundamental strands would produce a balanced and harmonious human capital in terms of spiritual, emotional, and physical well-being. In addition, the integration of the social culture of Malaysian society is also emphasised in its content as well as the Cross Curricular Elements (CCE), Information and Communication Technology, Entrepreneurship, and the 21st Century Learning, as we are heading towards world class education which is on par with international standards.

The *Mathematics Year 4* Textbook contains eight topics designed to meet the requirements of the *Dokumen Standard Kurikulum dan Pentaksiran* (DSKP) published by the Curriculum Development Division, Ministry of Education Malaysia. This textbook emphasises the concepts and skills in the Learning Standards that prioritise pupils' involvement in learning. The reasoning questions in the learning activities are expected to generate pupils' ideas and encourage a two-way communication between pupils and teachers, and also among peers. The Higher Order Thinking Skills (HOTS) questions on the other hand aims to produce intelligent and thinking pupils who can compete at the international level. The function of this book is optimised by providing tips, relevant facts, and a variety of activities which include hands-on, songs, projects, and games. The content of this book is also supplemented with formative and summative exercises to enable teachers to identify pupils' level of understanding, in order to implement subsequent learning to reinforce pupils' knowledge. The review assessments are provided to assess pupils' mastery of several topics.

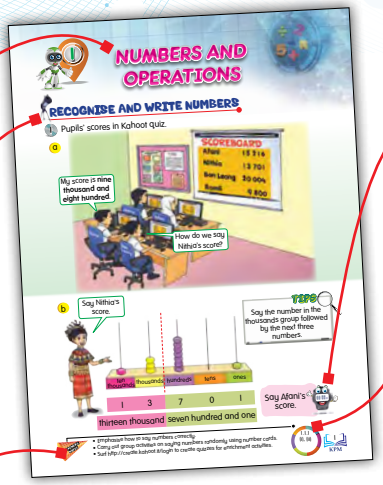
Teacher's Notes help teachers to carry out teaching and facilitation activities effectively. Suggestions of websites are provided for pupils to explore the knowledge learned and to carry out additional exercises. The content of this textbook is presented to be user-friendly with integration of elements that are of interest to pupils. It is also designed to foster national integration, patriotism, and culture through the use of names, characters, and graphic materials.

A description of the use of this textbook on the next page is expected to help users to understand the writing and the function of the icons used in this book.

TOPIC
Topic based on learning area.

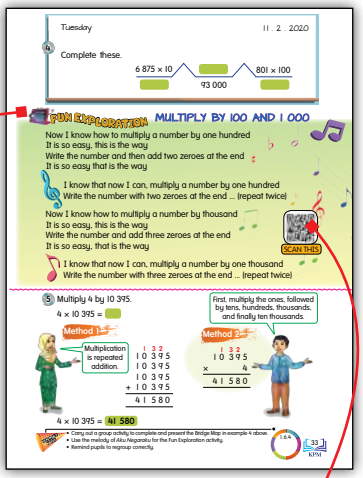
SUBTOPIC
The learning standard that should be mastered.

TEACHER'S NOTES
Emphasise on the learning activities and suggest alternative activities as well as websites for learning activities and additional practice.

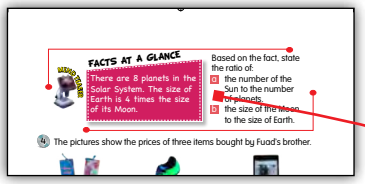


MASCOT
Presents questions and statements to encourage pupils to use the skill of reasoning.

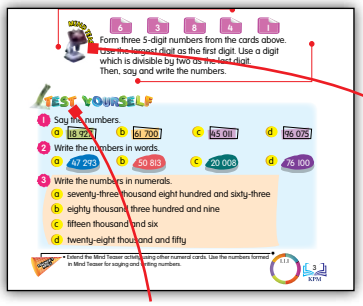
CONTENT STANDARD AND LEARNING STANDARD NUMBER
Skill indicators that should be mastered in accordance with DSKP.



FUN EXPLORATION
Activities to enhance skills learned in the form of hands-on, projects, and fun learning.



FACTS AT A GLANCE
Additional information for pupils' knowledge.

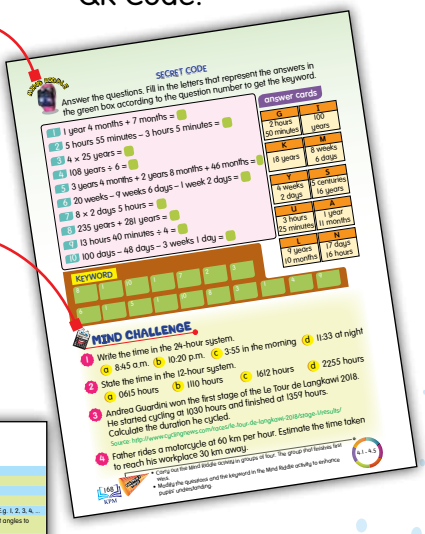


MIND TEASER
HOTS questions for challenging intellectual skills and encouraging critical and creative thinking.

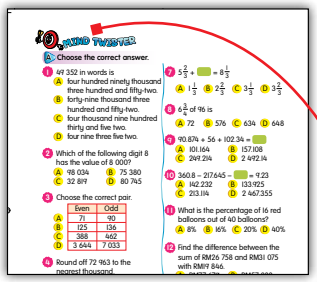
QR CODE
Access learning activities from the QR Code.

TEST YOURSELF
Formative exercises to assess pupils' mastery of newly learned skills.

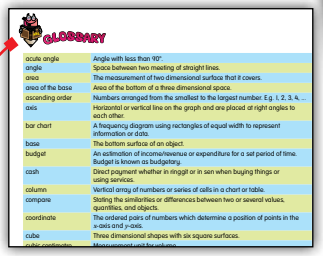
MIND RIDDLE
Mathematical recreational activities in the form of games and projects with a number of skills.



MIND CHALLENGE
Summative exercises to evaluate and reinforce pupils'understanding of all the skills learned in each topic.



MIND TWISTER
Review exercises to enhance pupils'understanding.



GLOSSARY
List of mathematical terms and their meanings.

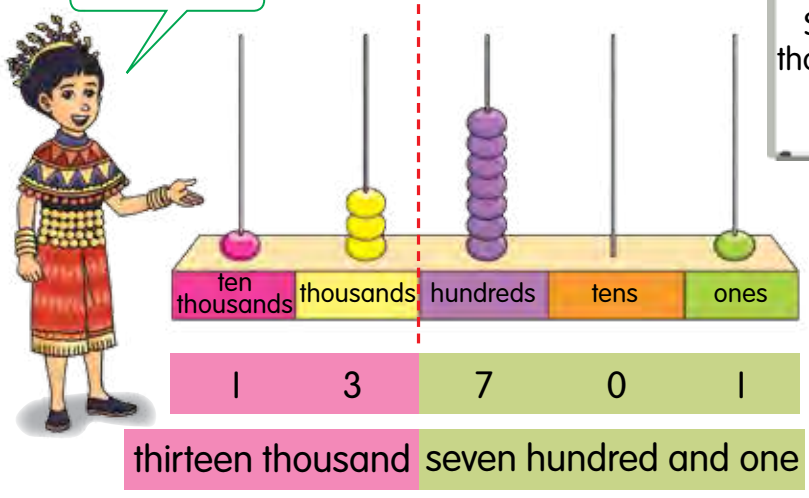
NUMBERS AND OPERATIONS

RECOGNISE AND WRITE NUMBERS

1 Pupils' scores in Kahoot quiz.

a

b



TIPS

Say the number in the thousands group followed by the next three numbers.

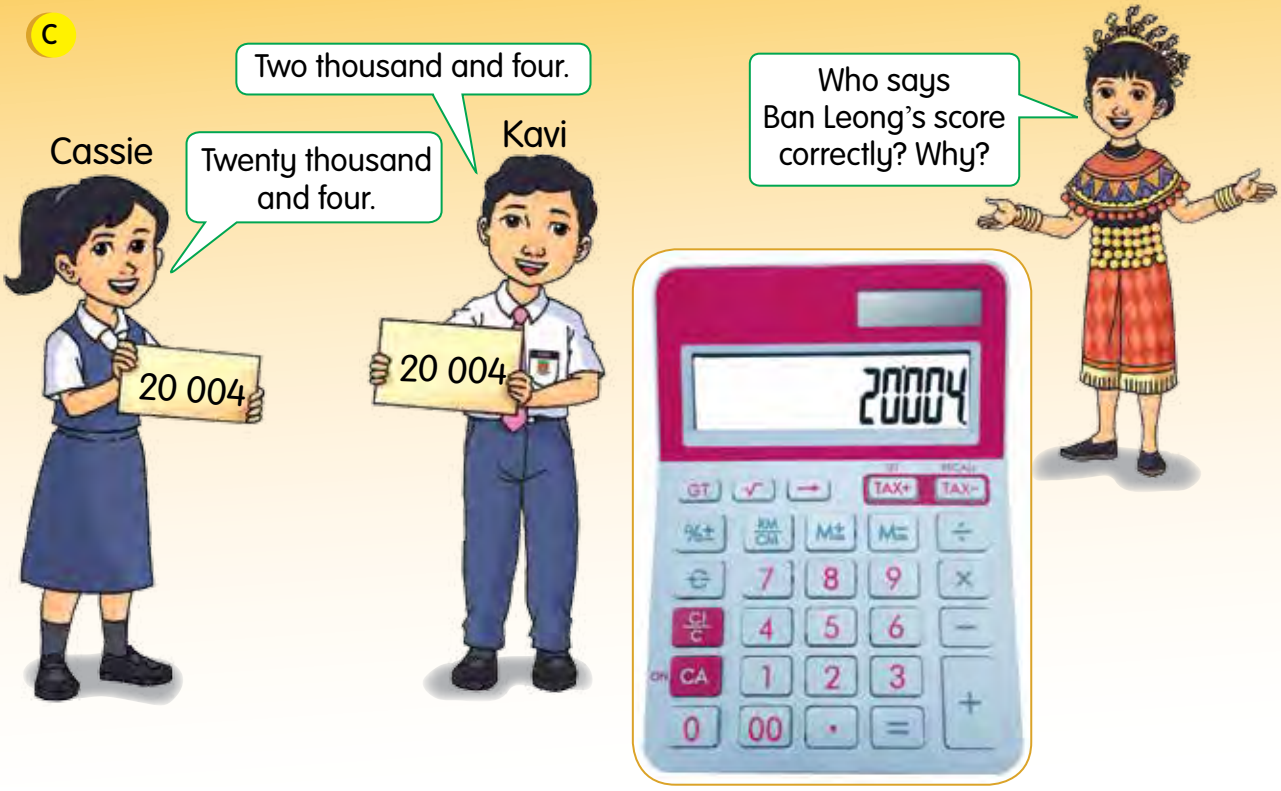
Say Afani's score.

TEACHER'S NOTES

- Emphasise how to say numbers correctly.
- Carry out group activities on saying numbers randomly using number cards.
- Surf http://create.kahoot.it/login to create quizzes for enrichment activities.

1.1.1 (i), (ii)

C



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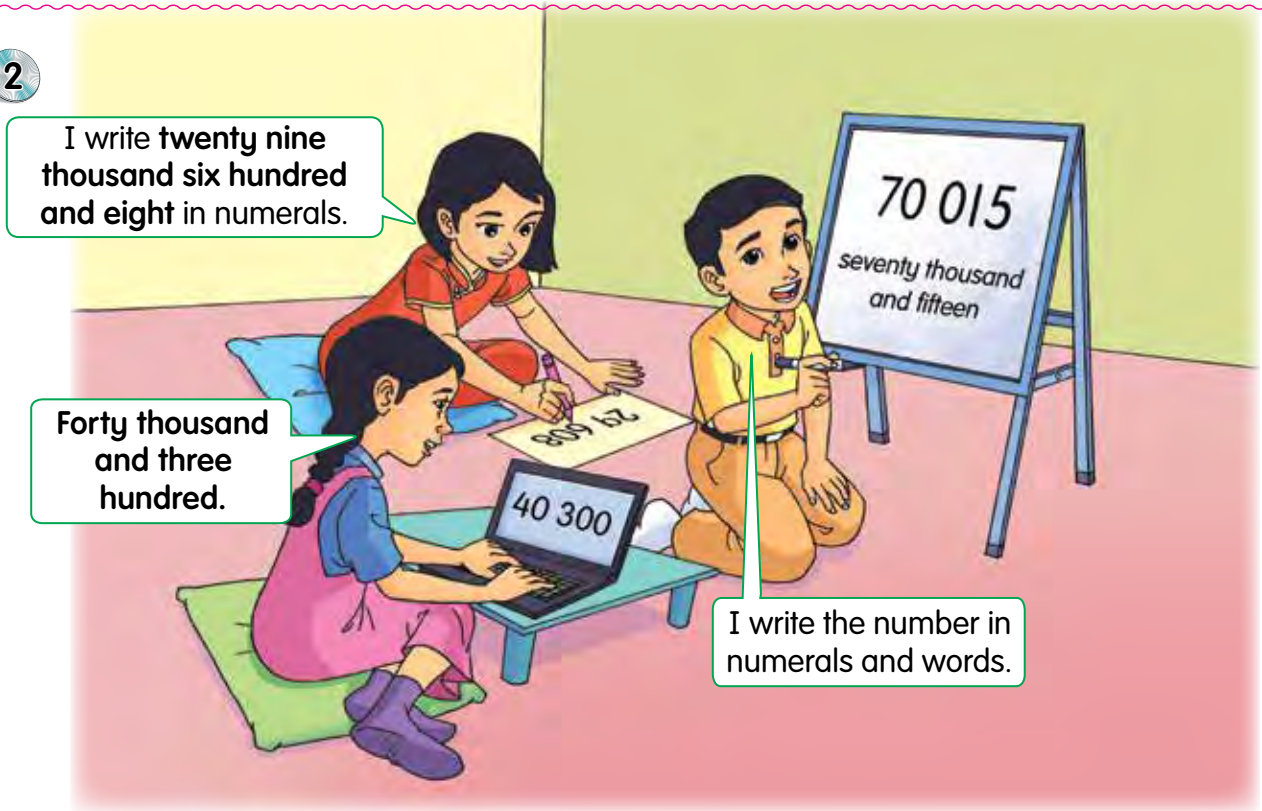
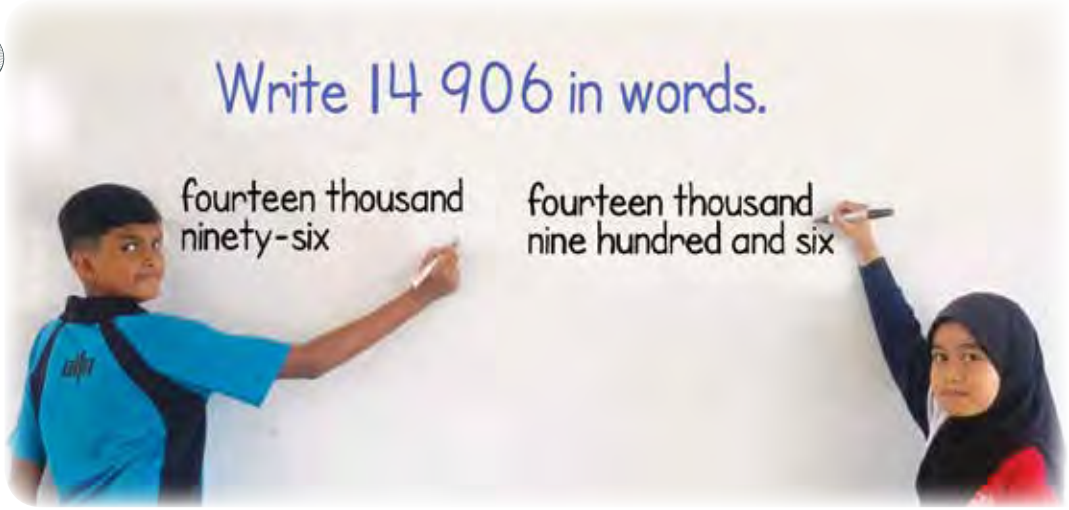


- Use flash cards for writing numbers in numerals and words activity.
- Carry out activities on saying numbers using counters and Dienes blocks, and also matching number cards to word cards.

TEACHER'S NOTES

1.1.1 (i), (ii), (iii)

3



Check both answers.
Which is correct? Why?

6 3 8 4 1

Form three 5-digit numbers from the cards above.
Use the largest digit as the first digit. Use a digit which is divisible by two as the last digit.
Then, say and write the numbers.

TEST YOURSELF

1 Say the numbers.

a 18 927 b 61 700 c 45 011 d 96 075

2 Write the numbers in words.

a 47 293 b 50 813 c 20 008 d 76 100

3 Write the numbers in numerals.

a seventy-three thousand eight hundred and sixty-three

b eighty thousand three hundred and nine

c fifteen thousand and six

d twenty-eight thousand and fifty

TEACHER'S NOTES

- Extend the Mind Teaser activity using other numeral cards. Use the numbers formed in Mind Teaser for saying and writing numbers.

EXPLORE NUMBERS

1

"The Football Association of Malaysia (FAM) confirmed today that **62 307** match tickets have been sold."

Source: https://www.bharian.com.my/sukan/bola/2018/11/501505/aksi-malaysia-myanmar-pecah-rekod-kehadiran-penonton

a What is the place value and digit value of 6 in 62 307?

Place value is the position of a digit in a number. Digit 6 is at ten thousands.

Digit	6	2	3	0	7
Place value	ten thousands	thousands		tens	ones
Digit value	60 000		300	0	7

Digit value is the value of a digit based on its place value. Digit 6 has a value of 60 000.

The place value of 3 is _____.

The digit value of 2 is _____.

b Partition 62 307 based on place value and digit value.

62 307 = 6 ten thousands + 2 thousands + 3 hundreds + 0 tens + 7 ones

I partitioned based on place value.

62 307 = 60 000 + 2 000 + 300 + 0 + 7

or

62 307 = 60 000 + 2 000 + 300 + 7

I partitioned based on digit value.

TIPS

0 can be left out when partitioning numbers based on digit values.

TEACHER'S NOTES

- Carry out group activities where pupils seek information on numbers from magazines, newspapers, or articles. Carry out activities to write place values, digit values, and partitioning numbers.

2 What are the unknown values?

80 000 + 30 + 9 + ☐ = 80 439

8 ten thousands + ☐ + 9 ones + 4 hundreds + 0 thousands = 80 439

4 + 70 + 100 + 65 000 = 65 174

Is 65 174 partitioned correctly? Discuss.

Halim has a secret code of five digits. Digit 3 is at the thousands place value. 8 has a digit value of 80 000. Digit 9 is between two zeros. What is his secret code?

TEST YOURSELF

1 Write the place value and the digit value for the underlined digits.

a 20 147 b 69 073 c 52 148 d 78 350 e 96 106

2 Complete these.

a The place value of 9 in 92 615 is ☐.

b The digit value of 8 in 14 087 is ☐.

c In 45 009, the digit at the thousands place is ☐ and has a value of ☐.

3 Complete these.

a 11 568 = 10 000 + 1 000 + ☐ + 60 + ☐

b 72 904 = 7 ten thousands + 2 thousands + ☐ + ☐ + ☐

c ☐ = 600 + ☐ + 9 + ☐ + 40 000

- Remind pupils that it is easier to state the partitioned value of a number by arranging the digit values from the largest to the smallest.

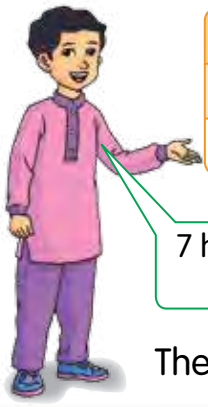
COMPARE AND ARRANGE NUMBERS

1 The Iban population in four districts of Sarawak in 2010 is as follows:

Lawas	Lubok Antu	Bintulu	Sibu
1 105	24 712	75 141	69 711

Source: http://www.malaysiaeconomy.net/download/18072016_2.pdf

a Which district has a greater Iban population, Bintulu or Sibu?



ten thousands	thousands	hundreds	tens	ones
7	5	1	4	1
6	9	7	1	1

7 has a larger digit value than 6 and its value is 70 000.

75 141 is more than 69 711.

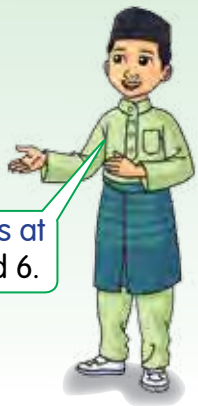
The Iban population is greater in **Bintulu**.

b Arrange the four Iban population in ascending order.

ten thousands	thousands	hundreds	tens	ones
	1	1	0	5
2	4	7	1	2
7	5	1	4	1
6	9	7	1	1

Compare the number of digits. There is one 4-digit number. 1 105 is the smallest value.

Now, compare the digits at ten thousands. 2, 7 and 6.



The digit value of 2 of 20 000 is lesser than the digit value of 6 of 60 000.
The digit value of 6 of 60 000 is lesser than the digit value of 7 of 70 000.

Ascending order: **1 105, 24 712, 69 711, 75 141**

TEACHER'S NOTES

- Emphasise that number values become larger in ascending order and become smaller in descending order.
- Carry out group activities to find suitable data from the web. For example, number of tourists. Continue with activities to arrange number cards in ascending and descending orders in the fastest time.

1.1.2 (iii), (iv)

2 The table shows the number of children interested in traditional games in a district.

Game	*Galah Panjang*	*Lompat Tikus*	*Lompat Getah*	*Batu Seremban*
Number of children	15 367	13 719	15 202	14 419

a Which game is less favoured, *Lompat Tikus* or *Batu Seremban*?

ten thousands	thousands	hundreds	tens	ones
1	3	7	1	9
1	4	4	1	9

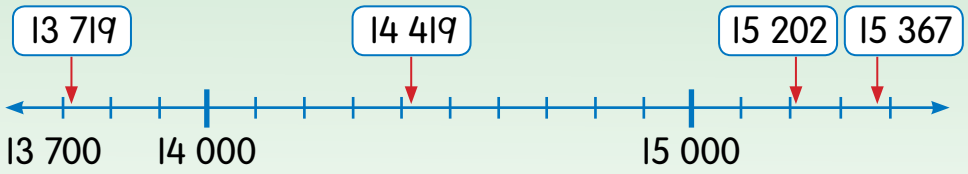
The digit value of 3 of 3 000 is lesser than the digit value of 4 of 4 000.

13 719 ▭ 14 419

Compare the thousands digits because the ten thousands digits are the same.

The game which is less favoured is ***Lompat Tikus***.

b Arrange the numbers in descending order.



Write the largest to the smallest values based on the number line.

Descending order **15 367, 15 202, 14 419, 13 719**

What is the middle number if 14 089 is included in the number arrangement?

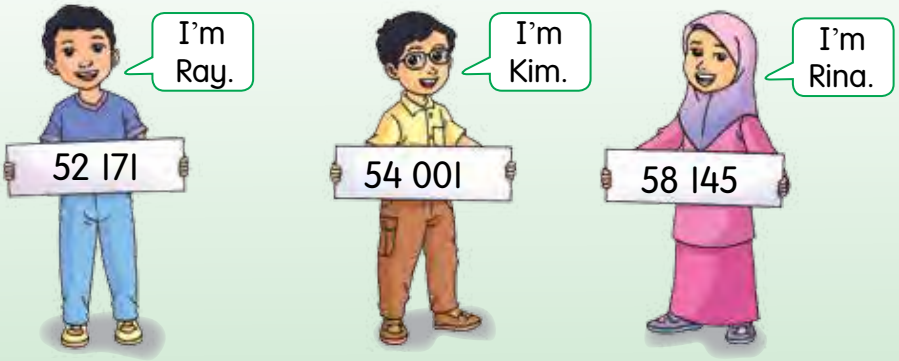
TEACHER'S NOTES

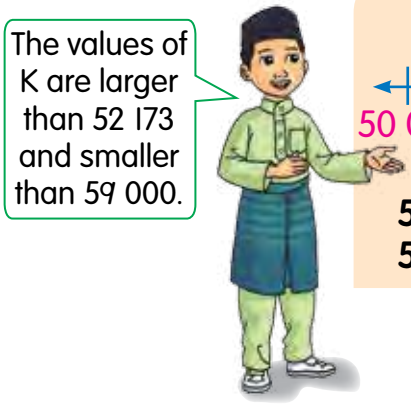
- Use various representations such as Dienes blocks to compare number values.

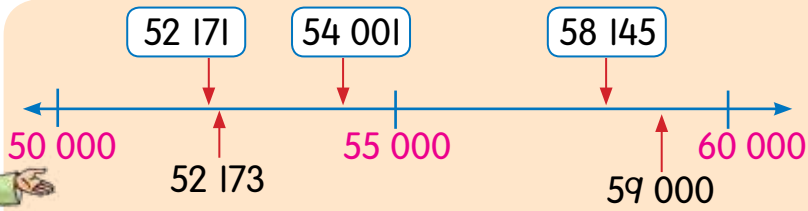
3 The four number cards below are arranged in ascending order.

40 298	52 173	K	59 000

Who shows the correct values of K?







54 001 and **58 145** are larger than 52 173.
54 001 and **58 145** are smaller than 59 000.

Kim and **Rina** show the correct values of K.

State other possible values of K.

TEST YOURSELF

1 Write the smaller numbers.

(a) 6 387 or 53 127 (b) 42 093 or 45 909 (c) 89 127 or 89 413

2 Compare each set of numbers using "more than" or "less than".

(a) 24 691, 31 002 (b) 77 115, 74 810 (c) 93 017, 93 054

3 Arrange the numbers in ascending and descending orders.

(a) 18 031, 18 310, 18 013, 18 103 (b) 65 501, 65 096, 65 609, 65 820, 65 090

4 Complete these with any possible values.

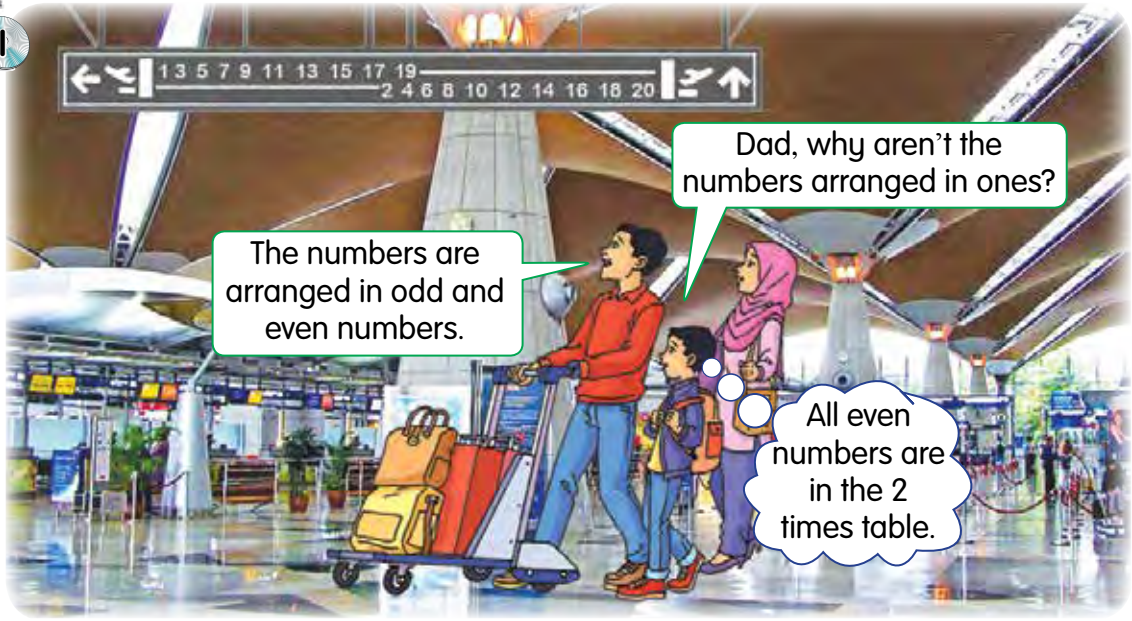
(a) 59 042, 59 109, ____, 59 114 (b) 70 061, ____, 70 068, 70 120

TEACHER'S NOTES
- Use number cards for simulation activities of comparing and arranging numbers.

1.1.2 (iii), (iv), (v)

EVEN NUMBERS AND ODD NUMBERS

1



1, 3, 5, 7, 9, 11, 13, 15, 17, 19, ... **odd numbers**

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ... **even numbers**

2 Which is even and which is odd, 13 or 18?

Divide 13 by 2. There is a remainder which means **13** is an **odd number**.

$$2\overline{)13} = 6 \text{ remainder } 1$$

Then, divide 18 by 2. There is no remainder which means **18** is an **even number**.

$$2\overline{)18} = 9 \text{ no remainder}$$

TIPS

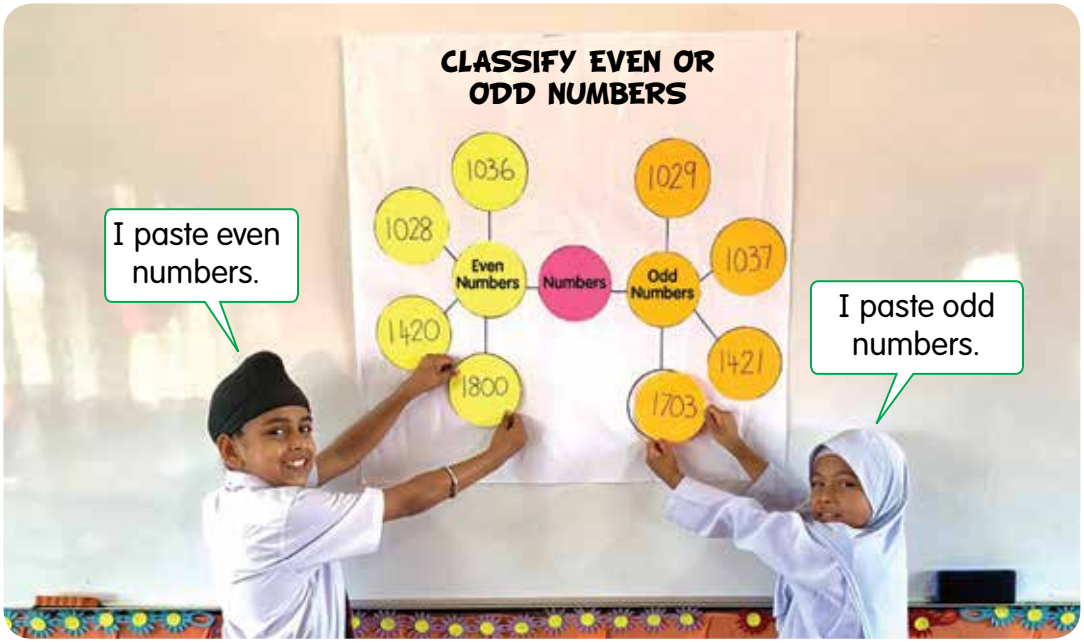
Odd numbers end with **1**, **3**, **5**, **7** and **9**.
Even numbers end with **0**, **2**, **4**, **6** and **8**.

Prove that 32 is an even number and 85 is an odd number.

TEACHER'S NOTES

- Discuss even and odd numbers based on a set of numbers and any times table.
- Relate even and odd numbers to daily life situations such as birth dates, the last four numbers in MyKid, and house numbers at pupils' places of residence.

3



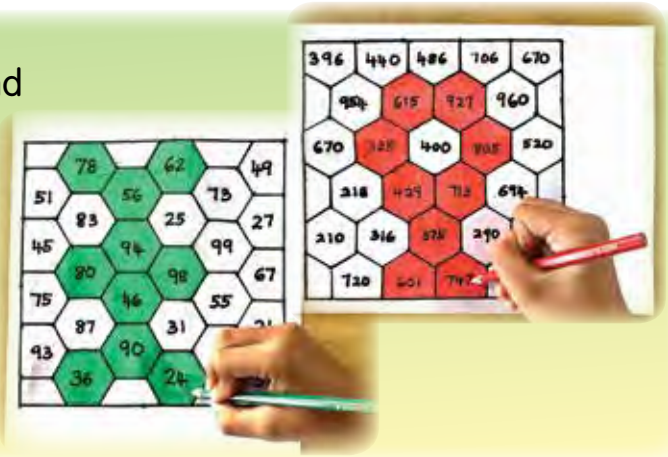
How many odd numbers are there from 6 020 to 6 030?

FUN EXPLORATION

Tools/ Materials Number grids and coloured pencils.

Task

1. Colour even numbers or odd numbers.
2. Compile all works in a scrapbook.



TEST YOURSELF

1. State all odd numbers from 520 to 531.
2. List all even numbers from 2 001 to 2 012.
3. Classify the following into even and odd numbers.

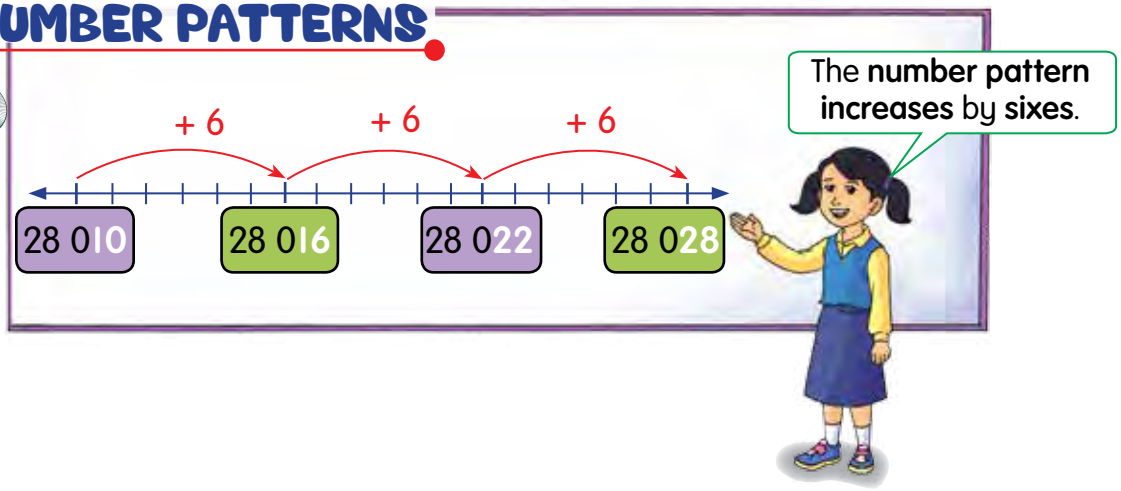
50 204 | 16 783 | 76 000 | 84 316 | 64 271 | 90 909

TEACHER'S NOTES

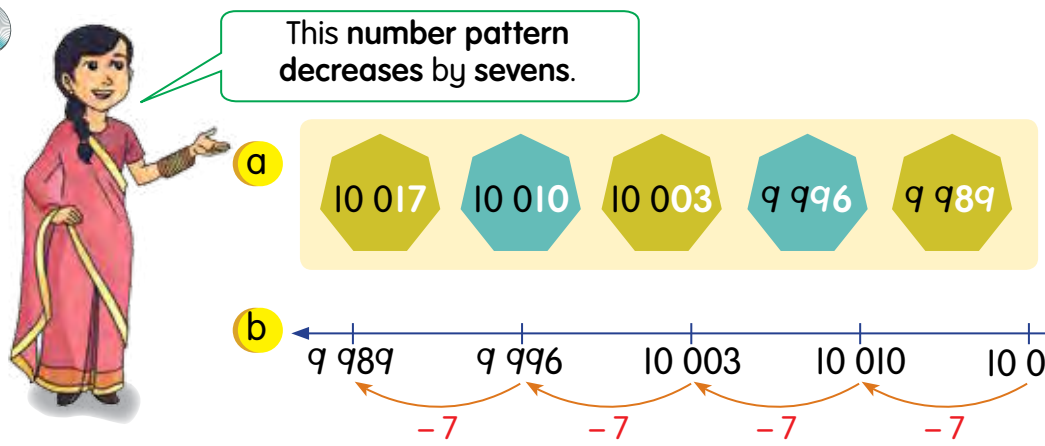
- Carry out a game of throwing numbered rings onto skittle cones labelled with odd or even numbers.
- Surf https://www.belajaroffice.com/menentukan-bilangan-ganjil-genap-rumus-excel/

NUMBER PATTERNS

1



2



3

What is the number pattern above?

20 730 | 30 730 | 40 730 | 50 730 | 60 730

The **number pattern** above **increases** by **ten thousands.**

SCAN THIS

TEACHER'S NOTES

- Carry out a competition to identify number patterns of several sets of number cards in ascending and descending orders.
- Encourage pupils to explore various number patterns using calculators.

4 The number pattern below is incomplete.

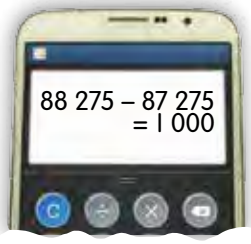
88 275

87 275

____

85 275

____



(a) 87 275 less by 1 000 is 86 275.

(b) 85 275 less by 1 000 is ____.

5 The number pattern is increasing by hundreds.

15 507, 15 607, 15 707, ____, ____, ____

What is the sixth number in this number pattern?

6

60 120, 60 140, 60 100, 60 110, 60 130, 60 150

Arrange these six numbers in descending order. State the number pattern.

TEST YOURSELF

1 Determine the number patterns.

(a) 19 540, 19 545, 19 550, 19 555, 19 560

(b) 26 709, 26 705, 26 701, 26 697, 26 693

(c) 74 027, 74 025, 74 023, 74 021, 74 019

2 Identify the number pattern that increases by eights.

81 012, 81 020, 81 028, 81 036

49 383, 49 390, 49 397, 49 404

3 Complete the number line. State its pattern.

____, 87 527, ____, 87 545, 87 554, ____

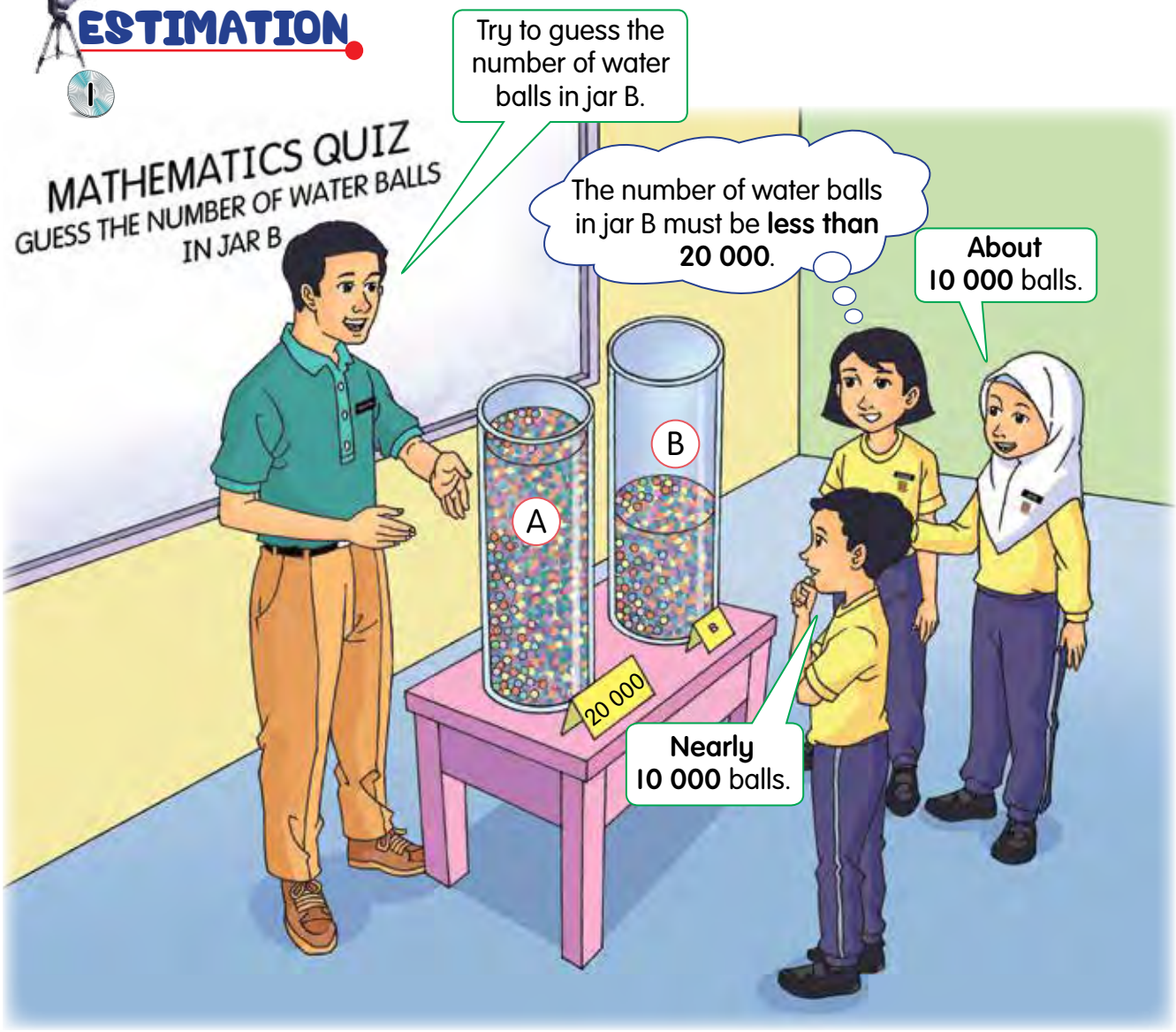
TEACHER'S NOTES

- Carry out activities using calculation tools such as calculators and MS Excel software to create and complete number patterns.

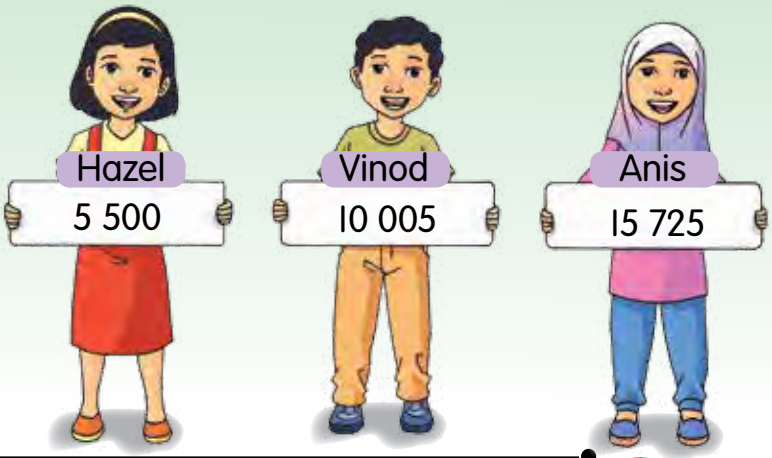
I.5.1, I.5.2

ESTIMATION 1

MATHEMATICS QUIZ
GUESS THE NUMBER OF WATER BALLS IN JAR B



These three pupils estimated the number of water balls above. Whose estimation is the most accurate? Why?

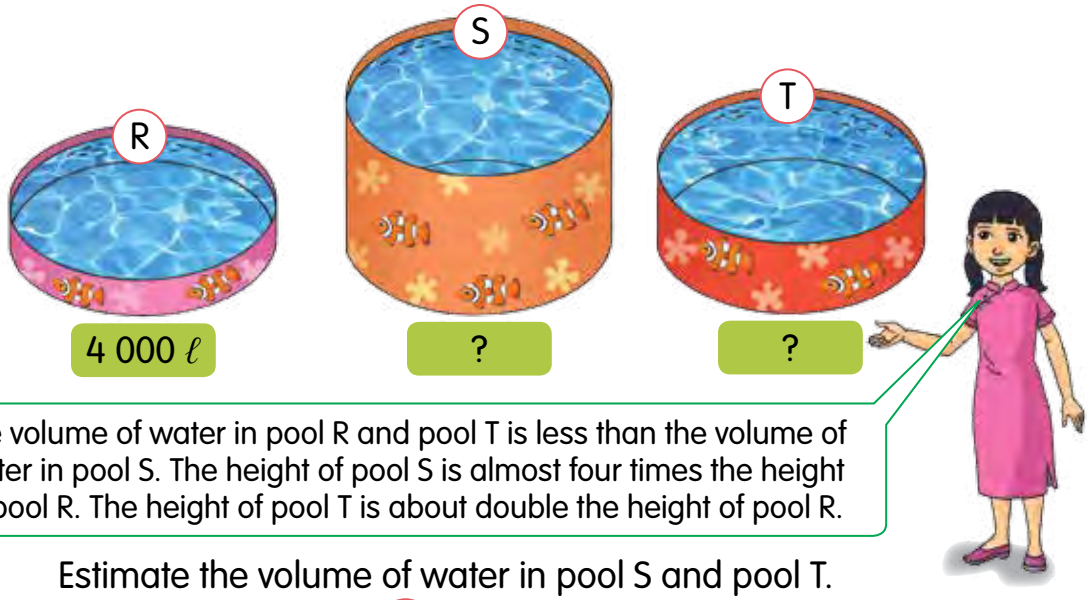


TEACHER'S NOTES

- Emphasise that estimation of quantities is very important in daily life such as estimating the amount of ingredients before cooking and estimating expenses before spending.

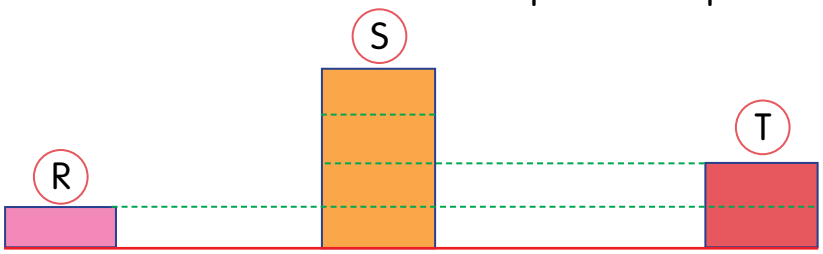
1.3.1

2



The volume of water in pool R and pool T is less than the volume of water in pool S. The height of pool S is almost four times the height of pool R. The height of pool T is about double the height of pool R.

Estimate the volume of water in pool S and pool T.



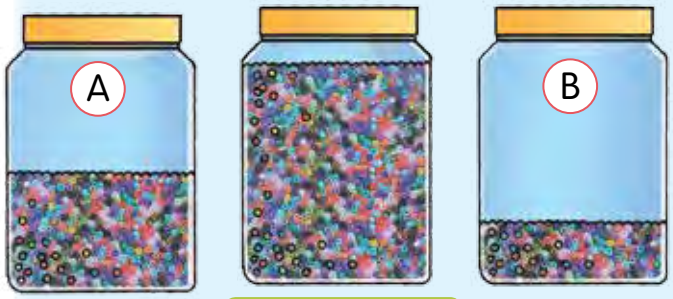
4 000 ℓ $4 \times 4\,000\ \ell = 16\,000\ \ell$ ____ × 4 000 ℓ = ____ ℓ

The volume of water in **pool S is almost 16 000** ℓ.
The volume of water in **pool T is about** ____ ℓ.

TEST YOURSELF

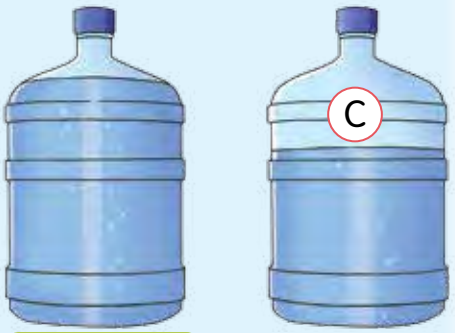
1 Estimate:

a the number of beads in containers A and B.



17 000 beads

b the volume of water in bottle C.



10 000 mℓ

- Carry out simulation activities to estimate quantities in daily life situations such as guessing the number of beans in containers based on a reference set.

ROUND OFF NUMBERS

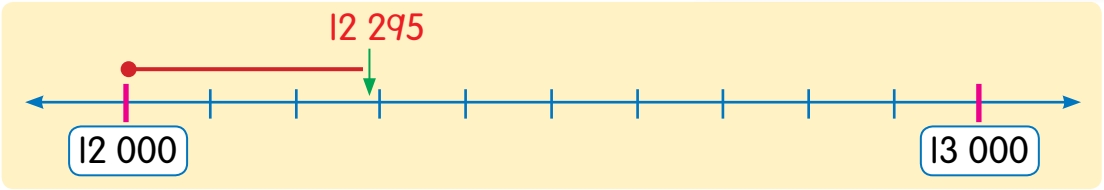
1 "... overall participation of 12 295 Malaysian citizens from various government and private agencies, school children ..."

Source: http://malaysiamerdeka.my/web/wp-content/uploads/2018/08/SIARAN-MEDIA-ACARA-HARI-KEBANGSAAN-2018.pdf

FACTS AT A GLANCE

The 2018 National Day celebration with the theme "*SAYANGI MALAYSIAKU*" stressed the importance of unity and the spirit of patriotism.

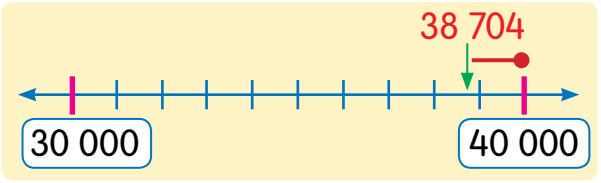
Round off 12 295 to the nearest thousand.



12 295 is between 12 000 and 13 000.
12 295 is nearer to 12 000.
12 295 becomes **12 000** when rounded off to the **nearest thousand**.

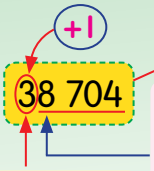
2 Round off 38 704 to the nearest ten thousand.

Method 1



38 704 is nearer to ____

Method 2



40 000

nearest ten thousand

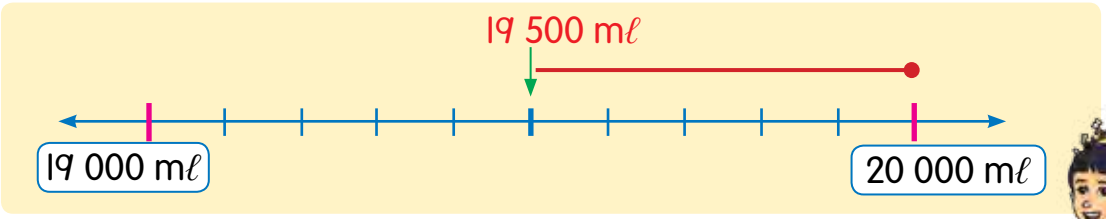
If the thousands digit is 5, 6, 7, 8 or 9, add 1 to the ten thousands value. Replace digits 8, 7, 0 and 4 with 0 respectively.

38 704 becomes ____ when rounded off to the nearest **ten thousand**.

TEACHER'S NOTES

- Discuss the importance of rounding off numbers in preparation and financial management of any events to avoid wastage.
- Relate rounding off to estimation.

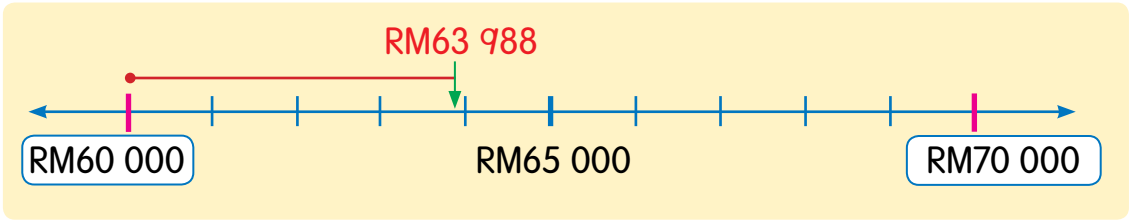
3 Round off 19 500 mℓ to the nearest thousand mℓ.



19 500 mℓ becomes **20 000 mℓ** when **rounded off** to the **nearest thousand mℓ**.

The middle value is rounded off to the larger ten, hundred, thousand, and ten thousand.

4 Round off RM63 988 to the nearest ten thousand ringgit.



RM63 988 is nearer to RM60 000.
RM63 988 rounded off to the **nearest ten thousand ringgit** is **RM60 000**.

Round off RM85 090 to the nearest thousand ringgit.

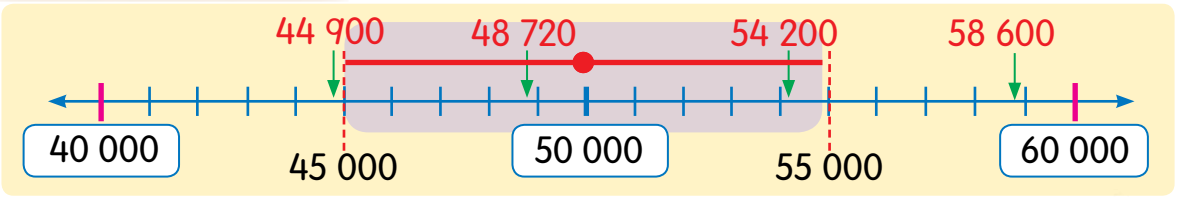
2 ▢ 999

The number above becomes 30 000 when rounded off to the nearest ten thousand, thousand, hundred, and ten. What are the thousands digits of the number?

- Give examples of applying rounding off numbers in daily life such as paying household necessities, water, electricity, and telephone bills.

5 The number of readers of four storybooks are as follows:

Which storybooks have 50 000 readers when rounded off to the nearest ten thousand?



Numbers from 45 000 to 54 999 become 50 000 when rounded off to the nearest ten thousand.

The number of readers of ***Kukundayo dengan Monyet*** and ***Aku Tiung Mas*** become 50 000 when rounded off to the nearest ten thousand.

Besides 44 900, say other numbers which become 40 000 when rounded off to the nearest ten thousand.

TEST YOURSELF

1 Choose the correct answers.
   a (68 790, 68 565, 68 489) rounded off to the nearest thousand become 69 000.
   b (72 103, 76 092, 85 520) rounded off to the nearest ten thousand becomes 80 000.

2 Round off RM83 609 to the nearest ten thousand ringgit.

3 Round off the following numbers to the nearest hundred, nearest thousand, and nearest ten thousand.
   a 14 278 b 46 195 c 62 045 d 79 638 e 95 307

4 State three numbers which become 50 000 when rounded off to the nearest ten thousand.

TEACHER'S NOTES
- Carry out a quiz on rounding off numbers to enhance pupils' understanding of the skills learned.

ADDITION

1 Rashid, please help me find the total number of skateboards and hoverboards sold.

Item	Number sold in a year
Hoverboard	7 237
Mini car	653
Scooter	9 084
Skateboard	18 045

(a) What is the total number of skateboards and hoverboards sold?

18 045 + 7 237 = ☐

ten thousands	thousands	hundreds	tens	ones
	1		1	
	8	0	4	5
+	7	2	3	7
2	5	2	8	2

Add according to place value. Start from ones.

5 ones + 7 ones = 12 ones
12 ones = 1 tens + 2 ones

8 thousands + 7 thousands = 15 thousands
15 thousands = 1 ten thousands + 5 thousands

18 045 + 7 237 = **25 282**

The total number of skateboards and hoverboards sold is **25 282**.

MIND TEASER

Give two 4-digit numbers with a 5-digit sum total.

☐☐☐☐ + ☐☐☐☐ = ☐☐☐☐☐

TEACHER'S NOTES

- Surf https://www.ixl.com/math/grade-5/add-and-subtract-whole-numbers-up-to-billions
- Relate addition to daily life situations such as number of orders and number of participation in activities.

b Find the total number of mini cars, scooters, and skateboards.

653 + 9 084 + 18 045 = ☐

Method 1

$$\begin{array}{r} {\scriptstyle 1} \\ 653 \\ +\ 9084 \\ \hline 9737 \\ \hline \end{array} \qquad \begin{array}{r} {\scriptstyle 1} \\ 9737 \\ +\ 18045 \\ \hline 27782 \\ \hline \end{array}$$

Method 2

$$\begin{array}{r} {\scriptstyle 1}{\scriptstyle 1}{\scriptstyle 1} \\ 18045 \\ 9084 \\ +\ 653 \\ \hline 27782 \\ \hline \end{array}$$

653 + 9 084 + 18 045 = **27 782**

The total number of mini cars, scooters, and skateboards is **27 782**.

2 Add 17 806, 4 029, 59 164 and 3 860.

17 806 + 4 029 + 59 164 + 3 860 = ☐

$$\begin{array}{r} {\scriptstyle 2}\ {\scriptstyle 1}\ {\scriptstyle 1}\ {\scriptstyle 1} \\ 17806 \\ 4029 \\ 59164 \\ +\ 3860 \\ \hline 84859 \\ \hline \end{array}$$

Start by adding digits that make 10 and digits that are the same.

17 806 + 4 029 + 59 164 + 3 860 = **84 859**

Given $P + Q = 21\,490$ and $R + T = 67\,578$.
Calculate $P + Q + R + T$.

TEACHER'S NOTES

- Provide more addition exercises involving combinations of ten and same digits.

3 The table shows students' enrolment in universities for the year 2017.

University	Male student	Female student
UM	10 569	17 391
UKM	11 374	19 500
USM	11 080	18 093
UPSI	7 020	16 679

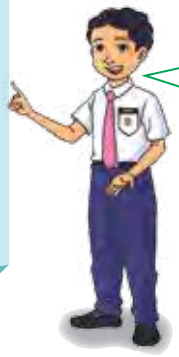
Source: https://www.moe.gov.my/muat-turun/laporan-dan-statistik/pendidikan-tinggi/buku-perangkaan/2017-5/2393-statistik-pendidikan-tinggi-2017-bab-2-pdf/file

Add up the enrolment of male students in the table above.

10 569 + 11 374 + 11 080 + 7 020 = ____

10 569 → 11 000
11 374 → 11 000
11 080 → 11 000
7 020 → 7 000

```
  1 1 0 0 0
  1 1 0 0 0
  1 1 0 0 0
+   7 0 0 0
  4 0 0 0 0
```



Estimate the answer by rounding off the numbers to the nearest thousand.

Calculate the actual total.

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

40 043 is nearer to **40 000**. The answer is **reasonable**.

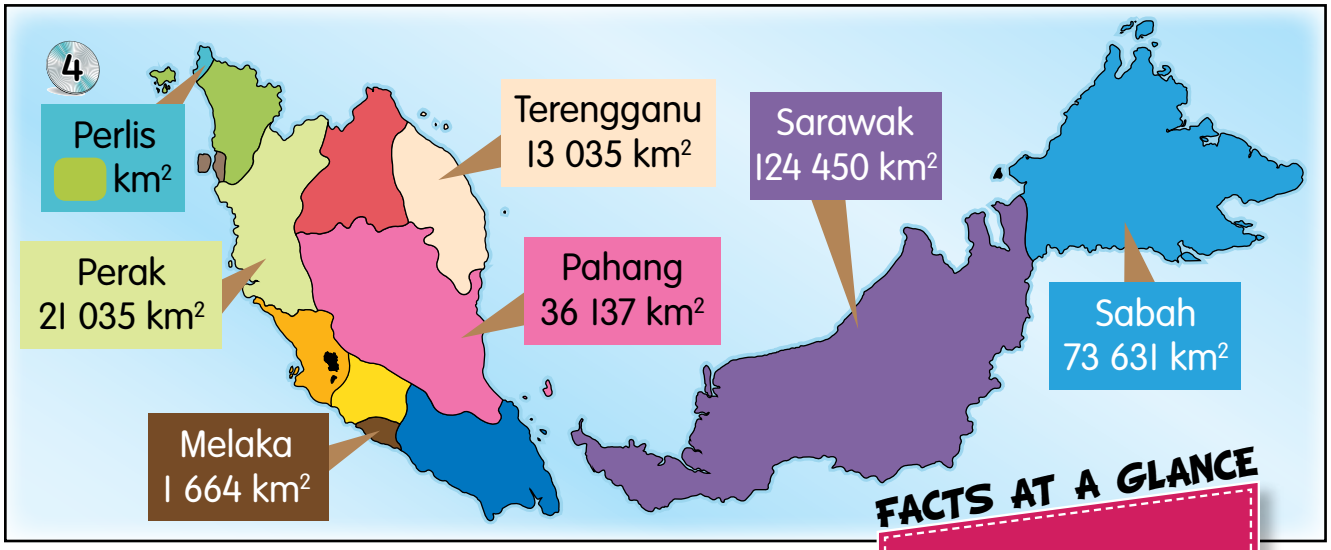
10 569 + 11 374 + 11 080 + 7 020 = **40 043**

The total enrolment of male students is **40 043**.

Now, total up the enrolment of female students.

TEACHER'S NOTES

- Stress on the importance of estimations in daily life.
- Ask pupils to round off answers to the nearest hundred and ten. Emphasise that rounding off numbers to the nearest ten will provide a better estimation to the actual answer. This is because the smaller the rounding off value, the more accurate the answer will be.



Source: https://www.rurallink.gov.my/wp-content/uploads/2015/05/64.pdf

FACTS AT A GLANCE

Sabah is known as the "Land Below the Wind". It is the second largest state after Sarawak.

The total area of Sabah, Melaka, and Perlis is 76 116 km². Calculate the area of Perlis.

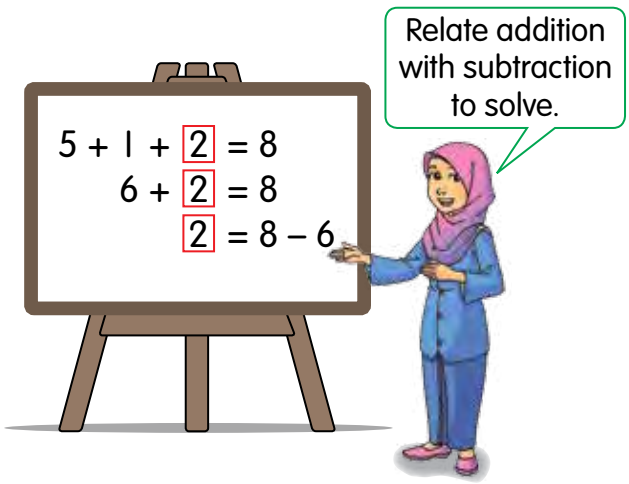
73 631 + 1 664 + ☐ = 76 116

Step 1

$$\begin{array}{r} {\scriptstyle 1} \\ 73\,631 \\ +\ \ 1\,664 \\ \hline 75\,295 \end{array}$$

Step 2

$$\begin{array}{r} {\scriptstyle 10} \\ {\scriptstyle 5\ 0\ 11} \\ 7\,\cancel{6}\,\cancel{1}\,\cancel{1}\,6 \\ -\ 75\,295 \\ \hline 821 \end{array}$$



73 631 + 1 664 + **821** = 76 116

The area of Perlis is **821** km².

Name the 3 states with a total area of 50 836 km².

TEACHER'S NOTES

- Use smaller values as an analogy to facilitate pupils' understanding.
- Use the source quoted above to vary questions of different levels on addition of up to four numbers, based on the data of the area of other states in Malaysia.
- Surf https://www.ixl.com/math/grade-4/addition-fill-in-the-missing-digits

UNKNOWN IN ADDITION

1 $18 + n = 30$

What is the value of n?

$3 + 1 = 4$

$1 = 4 - 3$

$18 + n = 30$

$n = 30 - 18$

$n = 12$

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

$18 + 12 = 30$

The value of n is **12**.

Use numbers with small value to solve an unknown.

2 $m + 45 = 82$

What is the value of m?

$3 + 1 = 4$

$3 = 4 - 1$

$m + 45 = 82$

$m = 82 - 45$

$m = 37$

$\begin{array}{r} {}^{7}\cancel{8}\,{}^{12}\cancel{2} \\ -\ 4\ 5 \\ \hline 3\ 7 \end{array}$

$37 + 45 = 82$

The value of m is **37**.

$p + q = 97$

p is an even number and q is an odd number. What are the possible values of p and q?

TEST YOURSELF

1 Add.

(a) 50 326 + 1 240 = ____

(b) 18 607 + 596 = ____

(c) 23 510 + 17 008 + 491 = ____

(d) 37 159 + 4 025 + 891 + 67 = ____

2 (a) Total up 51 902, 3 497 and 12 854.

(b) Add 632, 1 740, 895 and 64 932.

3 The table shows the population of districts R, S and T. Calculate the total population of all three districts.

District	R	S	T
Population	14 029	25 340	19 880

4 Complete the number sentences.

(a) 23 098 + ____ = 50 000

(b) 32 907 + ____ + 5 401 = 64 020

5 Find the values of p.

(a) $20 + p = 28$ (b) $p + 36 = 98$ (c) $19 + p = 40$ (d) $p + 54 = 75$

TEACHER'S NOTES

- Carry out simulation activities using concrete objects to determine the unknown values.
- Surf https://www.ixl.com/math/grade-4/addition-fill-in-the-missing-digits

1.6.1
1.8.1

SUBTRACTION

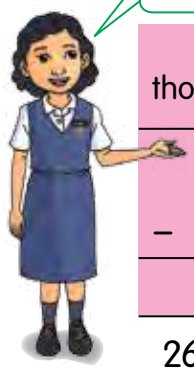
1

Number of UPSR candidates in Kedah for the year 2018

Type of school	*Sekolah Kebangsaan* (SK)	*Sekolah Jenis Kebangsaan Cina* (SJKC)	*Sekolah Jenis Kebangsaan Tamil* (SJKT)	Private School
Number of candidates	26 467	3 429	1 295	1 117

a Calculate the difference between the number of candidates in SK and SJKT.

26 467 – 1 295 = ____



Subtract according to place value. Start from ones.

ten thousands	thousands	hundreds	tens	ones
2	6	3 ~~4~~	16 ~~6~~	7
–	1	2	9	5
2	5	1	7	2

4 hundreds – 1 hundreds = 3 hundreds

1 hundreds + 6 tens = 10 tens + 6 tens = 16 tens

26 467 – 1 295 = **25 172**

The difference between the number of candidates in SK and SJKT is **25 172**.

b How much less is the number of candidates in private school compared to SK ?

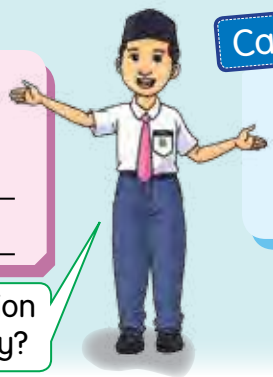
26 467 – 1 117 = ____

Calculation 1

```
   3 16
  2 6 ~~4~~ ~~6~~ 7
– 1 1 1 7
-----------
  1 5 2 9 7
```

Calculation 2

```
  2 6 4 6 7
–   1 1 1 7
-----------
  2 5 3 5 0
```



Which calculation is correct? Why?

How many more candidates are there in SK compared to SJKC?

TEACHER'S NOTES

- Emphasise that digits must be arranged according to its correct place value before performing subtraction.
- Relate to daily life situations such as finding the difference in the number of male and female ferry passengers and how much less are the passengers during non-holiday seasons compared to holiday seasons.

2 Subtract 3 020 from 79 400.

79 400 – 3 020 = ☐

$$\begin{array}{r} {\scriptstyle 3\,10} \\ 7\,9\,\cancel{4}\,\cancel{0}\,0 \\ -\quad 3\,0\,2\,0 \\ \hline 7\,6\,3\,8\,0 \\ \hline \end{array}$$

79 400 – 3 020 = **76 380**

19 thousands – 5 tens = ☐
What is the value of ☐?

3 Deduct RM8 238 from RM65 916.

RM65 916 – RM8 238 = ☐

Step 1
Estimate the answer.

RM65 916 → RM66 000
RM8 238 → RM8 000

$$\begin{array}{r} {\scriptstyle 5\,16} \\ \text{RM}\,\cancel{6}\,\cancel{6}\,0\,0\,0 \\ -\ \text{RM}\quad 8\,0\,0\,0 \\ \hline \text{RM}\,5\,8\,0\,0\,0 \\ \hline \end{array}$$

Step 2
Calculate the actual answer.

$$\begin{array}{r} {\scriptstyle 5\,15\ 8\ 10\,16} \\ \text{RM}\,\cancel{6}\,\cancel{5}\ \cancel{9}\,\cancel{1}\,\cancel{6} \\ -\ \text{RM}\quad 8\,2\,3\,8 \\ \hline \text{RM}\,5\,7\,6\,7\,8 \\ \hline \end{array}$$

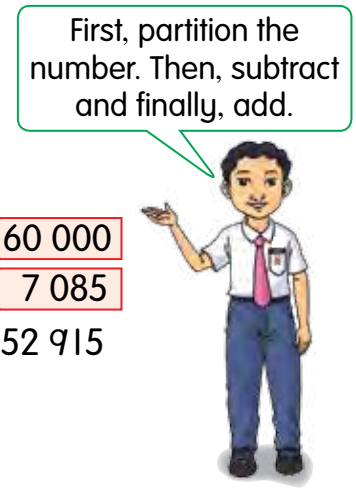
RM57 678 is nearer to **RM58 000**.
The answer is **reasonable**.

RM65 916 – RM8 238 = **RM57 678**

TEACHER'S NOTES
- Guide pupils to carry out subtractions using suitable materials to represent ten thousands, thousands, hundreds, tens, and ones.
- Surf https://www.ixl.com/math/grade-5/add-and-subtract-whole-numbers-up-to-billions

4 How many more is 60 000 from 7 085?

60 000 – 7 085 = ☐


First, partition the number. Then, subtract and finally, add.

Method 1

	50 000		9 000		900		90		10	
	~~60 000~~	+	~~10 000~~	+	~~1 000~~	+	~~100~~	+	0	60 000
–		+	7 000	+	0	+	80	+	5	7 085
	50 000	+	2 000	+	900	+	10	+	5	= 52 915

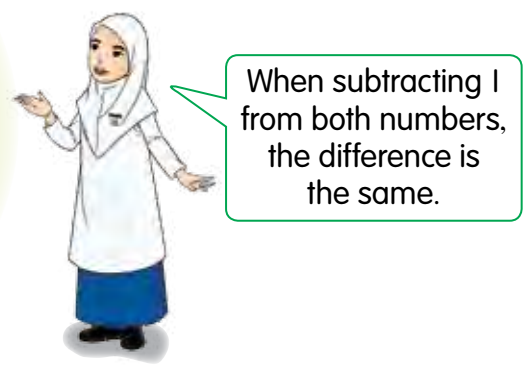
Method 2

60 000 – 7 085 = ☐

– 1   – 1

59 999 – 7 084

$$\begin{array}{r} 59\,999 \\ -\ \ 7\,084 \\ \hline 52\,915 \\ \hline \end{array}$$


When subtracting 1 from both numbers, the difference is the same.

60 000 – 7 085 = **52 915**

5 Subtract 739 and 4 027 from 58 669.

58 669 – 739 – 4 027 = ☐

$$\begin{array}{r} 5\,\cancel{8}^{7}\,\cancel{6}^{16}\,6\,9 \\ -\ \ 7\,3\,9 \\ \hline 57\,930 \\ \hline \end{array} \qquad \begin{array}{r} 57\,9\,\cancel{3}^{2}\,\cancel{0}^{10} \\ -\ \ 4\,0\,2\,7 \\ \hline 53\,903 \\ \hline \end{array}$$

Try this method.

$$\begin{array}{r} 4\,0\,2\,7 \\ +\ \ 7\,3\,9 \\ \hline \square \\ \hline \end{array} \qquad \begin{array}{r} 58\,669 \\ -\ \square \\ \hline \square \\ \hline \end{array}$$

58 669 – 739 – 4 027 = **53 903**

TEACHER'S NOTES

- Emphasise that in repeated subtraction, subtract the first two numbers before subtracting the next.
- Explain the solution used by the mascot.

1.6.2
1.6.3

6 84 590 – 74 – 23 806 = ☐

Method 1

$$\begin{array}{r} \overset{3}{8}\,\overset{15}{\cancel{4}}\,\overset{8}{\cancel{5}}\,\overset{10}{\cancel{9}}\,\cancel{0} \\ -\ 23\,806 \\ \hline 60\,784 \\ -\ \quad 74 \\ \hline \boxed{} \\ \hline \end{array}$$

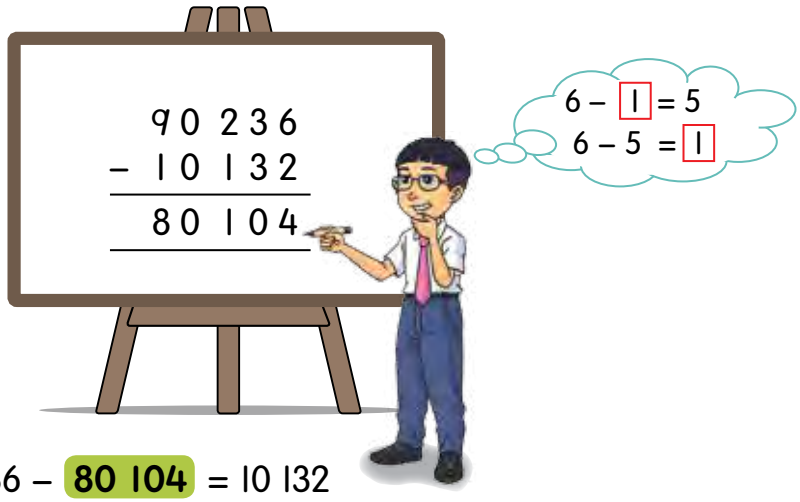
Method 2

$$\begin{array}{r} 84\,5\overset{8}{\cancel{9}}\overset{10}{\cancel{0}} \\ -\ \quad 74 \\ \hline 84\,516 \\ \hline \end{array} \rightarrow \begin{array}{r} 84\,516 \\ -\ 23\,806 \\ \hline \boxed{} \\ \hline \end{array}$$

Compare the two methods. Which is easier?

7 How many need to be subtracted from 90 236 to become 10 132?

90 236 – ☐ = 10 132



90 236 – **80 104** = 10 132

80 104 need to be subtracted from 90 236 to become 10 132.

A number reduced by 1 270 becomes 90 486. What is the number?

Given $R - T = 49\,058$.
Calculate $R - T - 12\,000$.

TEACHER'S NOTES

- Carry out simulation activities in solving unknowns.
- Surf https://www.ixl.com/math/grade-4/subtraction-patterns-over-increasing-place-values

UNKNOWN IN SUBTRACTION

1 $92 - y = 73$

What is the value of y?

$5 - \square = 4$

$5 - 4 = \square$

Use numbers with small value to solve an unknown.

$92 - y = 73$

$92 - 73 = y$

$y = 19$

$$\begin{array}{r} {\scriptstyle 8\ 12} \\ 9\not{2}\ \not{2} \\ -\ 7\ 3 \\ \hline 1\ 9 \end{array}$$

$92 - 19 = 73$

The value of y is **19**.

2 $k - 56 = 28$

What is the value of k?

$5 - 1 = 4$

$5 = 4 + 1$

$k - 56 = 28$

$k = 28 + 56$

$k = 84$

$$\begin{array}{r} {\scriptstyle 1} \\ 2\ 8 \\ +\ 5\ 6 \\ \hline 8\ 4 \end{array}$$

$84 - 56 = 28$

The value of k is **84**.

TEST YOURSELF

1 Find the difference.

(a) 67 592 – 45 102 = ☐

(b) 93 000 – 16 000 = ☐

(c) 63 800 – 1 400 = ☐

(d) 80 000 – 6 327 = ☐

(e) 28 058 – 3 965 – 708 = ☐

(f) 72 906 – 67 – 4 759 = ☐

2 The table shows the number of visitors at two recreational parks.

Recreational park	J	K
Number of visitors	29 305	40 890

How many more visitors are there at recreational park K compared to recreational park J?

3 Complete the number sentences.

(a) 31 970 – ☐ = 28 654

(b) ☐ – 18 435 = 67 913

4 (a) How many need to be subtracted from 18 406 to become 6 249?

(b) Subtract 583 and 2 046 from 97 510.

5 Find the values of k.

(a) $79 - k = 36$ (b) $k - 22 = 73$ (c) $80 - k = 65$ (d) $k - 68 = 19$

TEACHER'S NOTES

- Explain "simplifying the problem" strategy by using small values to find unknowns.
- Use number lines to enhance pupils' understanding of finding unknowns.

1.6.2
1.6.3
1.8.2

ADDITION AND SUBTRACTION

1

How many packs of tissue are left?

24 336 + 1 560 – 4 120 = ☐

Method 1

$$\begin{array}{r} 24\,336 \\ +\ \ 1\,560 \\ \hline 25\,896 \end{array} \rightarrow \begin{array}{r} 25\,896 \\ -\ \ 4\,120 \\ \hline 21\,776 \end{array}$$

Method 2

$$\begin{array}{r} 24\,336 \\ -\ \ 4\,120 \\ \hline \square \end{array} \rightarrow \begin{array}{r} \square \\ +\ \ 1\,560 \\ \hline \square \end{array}$$

24 336 + 1 560 – 4 120 = **21 776**

There are **21 776** packs of tissue left.

TEACHER'S NOTES

- Provide several daily life examples on mixed operations of addition and subtraction for pupils to solve.
  Example: number of train passengers embarked and disembarked.

2 43 098 – 1 270 + 635 = ☐

Calculation 1

$$\begin{array}{r} {\scriptstyle 2\ 10} \\ 4\,\cancel{3}\,\cancel{0}\,9\,8 \\ -\quad 1\,2\,7\,0 \\ \hline 4\,1\,8\,2\,8 \end{array} \qquad \begin{array}{r} {\scriptstyle 1\quad 1} \\ 4\,1\,8\,2\,8 \\ +\quad\ 6\,3\,5 \\ \hline 4\,2\,4\,6\,3 \end{array}$$

Calculation 2

$$\begin{array}{r} {\scriptstyle 1} \\ 1\,2\,7\,0 \\ +\quad 6\,3\,5 \\ \hline 1\,9\,0\,5 \end{array} \qquad \begin{array}{r} {\scriptstyle 2\ 10} \\ 4\,\cancel{3}\,\cancel{0}\,9\,8 \\ -\quad 1\,9\,0\,5 \\ \hline 4\,1\,1\,9\,3 \end{array}$$

Examine both calculations. Which calculation is correct? Discuss.

3 ☐ + 7 861 – 930 = 51 547

Use numbers with small value to solve an unknown.

5 + 4 – 3 = 6
5 + 1 = 6
5 = 6 – 1

SCAN THIS

☐ + 7 861 – 930 = 51 547

$$\begin{array}{r} {\scriptstyle 6\ 18} \\ 7\,\cancel{8}\,6\,1 \\ -\quad 9\,3\,0 \\ \hline 6\,9\,3\,1 \end{array} \qquad \begin{array}{r} {\scriptstyle 10} \\ {\scriptstyle 4\ 0\ 15} \\ 5\,\cancel{1}\,\cancel{5}\,4\,7 \\ -\quad 6\,9\,3\,1 \\ \hline 4\,4\,6\,1\,6 \end{array}$$

44 616 + 7 861 – 930 = 51 547

TEST YOURSELF

1 Solve these.

a 85 796 + 2 031 – 413 = ☐
b 90 478 – 12 625 + 587 = ☐
c 26 143 + 681 – 3 795 = ☐
d 60 217 – 45 709 + 1 260 = ☐

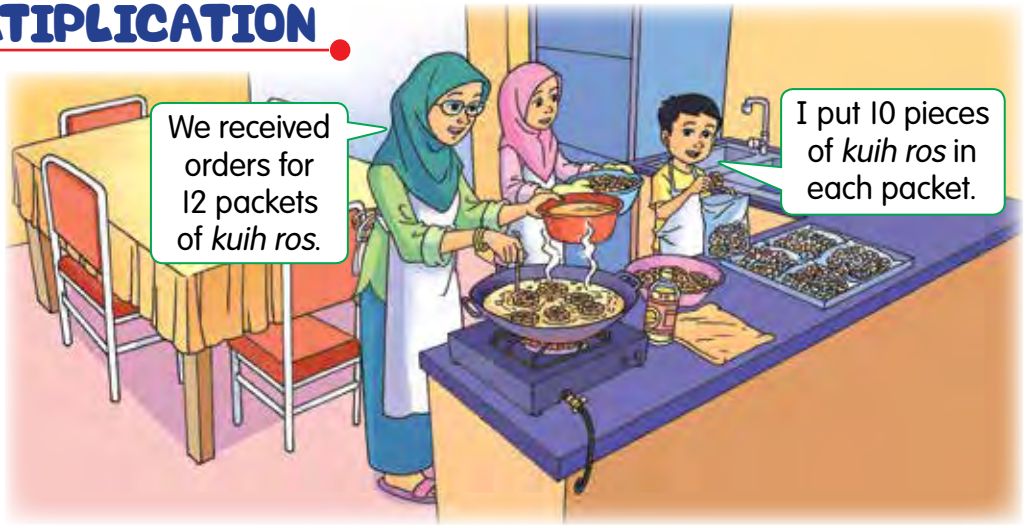
2 Complete the number sentences.

a ☐ + 492 – 175 = 615
b ☐ – 11 325 + 891 = 19 733

TEACHER'S NOTES

- Provide many simulation activities on mixed operations to reinforce pupils' understanding.

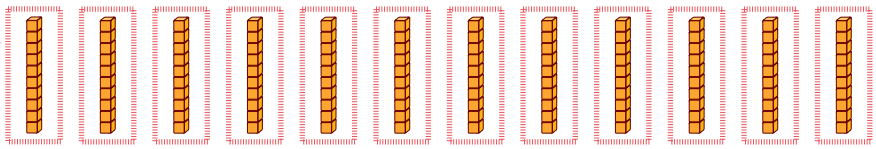
MULTIPLICATION



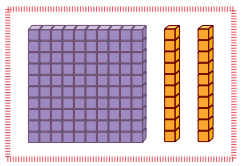
How many *kuih ros* are there in 12 packets?

12 × 10 = ____

Method 1



12 × 10



100 + 20 = 120

12 × 1 tens = 12 tens

12 tens = 10 tens + 2 tens
= 100 + 20
= 120

Method 2

12 × 1 = 12
12 × 10 = 120

SCAN THIS

12 × 10 = **120**

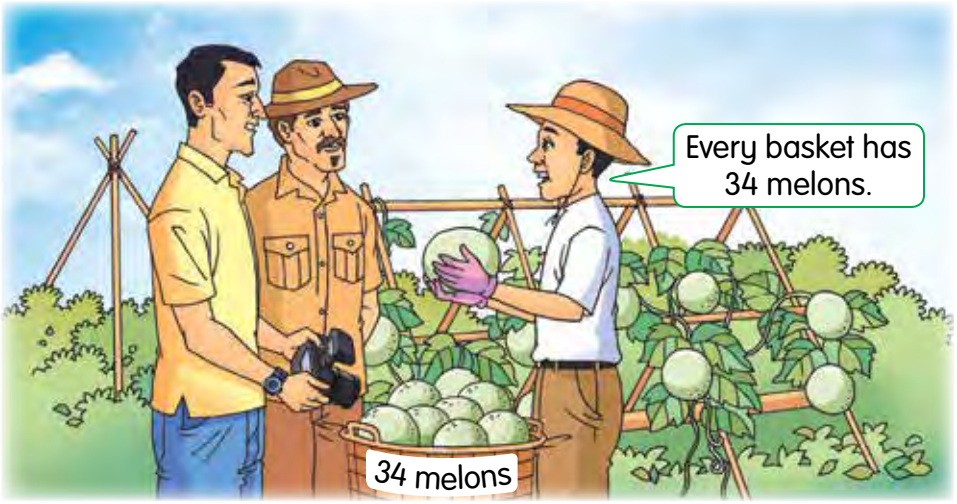
There are **120** pieces of *kuih ros* in 12 packets.

How many pieces of *kuih ros* are there in 25 similar packets?

TEACHER'S NOTES

- Encourage pupils to use quick mental calculation to multiply any number with 10.

2



How many melons are there in 20 similar baskets?

$20 \times 34 =$ ☐

Method 1

Multiply the ones digit value

$$\begin{array}{r} 34 \\ \times\ 20 \\ \hline 00 \end{array}$$ 34×0

Multiply the tens digit value

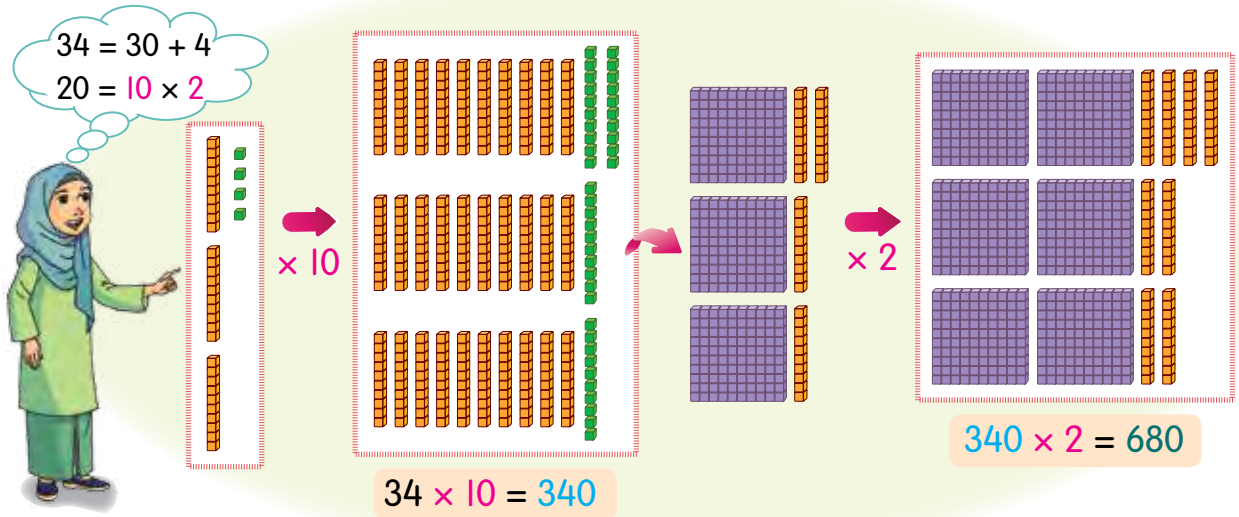
$$\begin{array}{r} 34 \\ \times\ 20 \\ \hline 00 \\ 680 \end{array}$$ 34×20

Add up the two products

$$\begin{array}{r} 34 \\ \times\ 20 \\ \hline 00 \\ +\ 680 \\ \hline 680 \end{array}$$

Method 2

$34 = 30 + 4$
$20 = 10 \times 2$



$34 \times 10 = 340$

$340 \times 2 = 680$

$20 \times 34 =$ **680**

There are **680** melons altogether in 20 similar baskets.

TEACHER'S NOTES

- Encourage pupils to write multiplication number sentences based on picture cards such as biscuit jars and egg trays.
- When any number is multiplied by the multiples of 10 which is less than 100, multiply the number with the tens digit of the multiple and put 0 at ones.

3

a What is the total number of books produced in a day?

420 × 100 = ☐

$$\begin{array}{r} 420 \\ \times\ 100 \\ \hline 42\,000 \end{array}$$

420 × 100 = **42 000**

42 000 books are produced in a day.

Complete these.
a. 145 × 100 = ☐
b. 708 × 100 = ☐

b Calculate the number of books printed in a day.

65 × 1 000 = ☐

Method 1

$$\begin{array}{r} 65 \\ \times\ 1\,000 \\ \hline 65\,000 \end{array}$$

Method 2

65 × 10 = 650
65 × 100 = 6 500
65 × 1 000 = ☐

Observe the pattern to get your answer.

65 × 1 000 = **65 000**

The number of books printed in a day is **65 000**.

Multiply 100 by 1 000. What is the answer?

TEACHER'S NOTES
- Carry out quizzes or fast calculations to improve pupils' reasoning skills in multiplying by 10, 100 and 1 000.

Tuesday 11 . 2 . 2020

4 Complete these.

6 875 × 10 [ ] 801 × 100

[ ] 93 000 [ ]

FUN EXPLORATION MULTIPLY BY 100 AND 1 000

Now I know how to multiply a number by one hundred
It is so easy, this is the way
Write the number and then add two zeroes at the end
It is so easy that is the way

I know that now I can, multiply a number by one hundred
Write the number with two zeroes at the end ... (repeat twice)

Now I know how to multiply a number by thousand
It is so easy, this is the way
Write the number and add three zeroes at the end
It is so easy, that is the way

SCAN THIS

I know that now I can, multiply a number by one thousand
Write the number with three zeroes at the end ... (repeat twice)

5 Multiply 4 by 10 395.

4 × 10 395 = [ ]

Method 1

Multiplication is repeated addition.

```
  1 3 2
  10 395
  10 395
  10 395
+ 10 395
  41 580
```

Method 2

First, multiply the ones, followed by tens, hundreds, thousands, and finally ten thousands.

```
  1 3 2
  10 395
×      4
  41 580
```

4 × 10 395 = **41 580**

TEACHER'S NOTES

- Carry out a group activity to complete and present the Bridge Map in example 4 above.
- Use the melody of *Aku Negaraku* for the Fun Exploration activity.
- Remind pupils to regroup correctly.

1.6.4

6 What is the product of 49 and 76?

49 × 76 = ☐

Method 1

Multiply the ones

$$\begin{array}{r} {\scriptstyle 2\ 5}\\ 4\,9\\ \times\ 7\,6\\ \hline 2\,9\,4 \end{array} \quad 49 \times 6$$

Multiply the tens

$$\begin{array}{r} {\scriptstyle 3\ 6}\\ 4\,9\\ \times\ 7\,6\\ \hline 2\,9\,4\\ 3\,4\,3\,0 \end{array} \quad 49 \times 70$$

Add the products

$$\begin{array}{r} {\scriptstyle 3\ 6}\\ {\scriptstyle 2\ 5}\\ 4\,9\\ \times\ 7\,6\\ \hline {\scriptstyle 1}\\ 2\,9\,4\\ +\ 3\,4\,3\,0\\ \hline 3\,7\,2\,4 \end{array}$$

Method 2

$$\begin{array}{r} 4\,9\\ \times\ 7\,6\\ \hline 5\,4 \quad 9 \times 6\\ {\scriptstyle 1}\ 2\,4\,0 \quad 40 \times 6\\ 6\,3\,0 \quad 9 \times 70\\ {\scriptstyle 1}\ +\ 2\,8\,0\,0 \quad 40 \times 70\\ \hline 3\,7\,2\,4 \end{array}$$

Method 3

49 × 76 = 76 × 7 × 7

$$\begin{array}{r} {\scriptstyle 4}\\ 7\,6\\ \times\ \ 7\\ \hline 5\,3\,2 \end{array} \qquad \begin{array}{r} {\scriptstyle 2\ 1}\\ 5\,3\,2\\ \times\ \ 7\\ \hline 3\,7\,2\,4 \end{array}$$

49 × 76 = **3 724**

The product of 49 and 76 is **3 724**.

51 × 28 = ☐

$$\begin{array}{r} 5\,1\\ \times\ 2\,8\\ \hline 8\\ 4\,0\\ 2\,0\\ +\ 1\,0\,0\,0\\ \hline 1\,0\,6\,8 \end{array}$$

Identify the error in this calculation.

- Provide more exercises in multiplying two-digit numbers with two-digit numbers to reinforce pupils' understanding.
- Surf https://www.ixl.com/math/grade-5/box-multiplication

7 138 × 64 = ☐

Method 1

Step 1

138 = 100 + 30 + 8
64 = 60 + 4

Step 2

×	100	30	8
60	6 000	1 800	480
4	400	120	32
Total	6 400	1 920	512

Step 3

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

SCAN THIS

Method 2

```
    2 4
    1 3
      1 3 8
  ×   6 4
  -------
      1
      5 5 2
+ 8 2 8 0
  -------
  8 8 3 2
  -------
```

138 × 64 = **8 832**

MIND TEASER

☐24 × 17 = ☐☐☐☐☐

What is the smallest hundreds digit so that the answer is a 5-digit number?

8 39 × 2 094 = ☐

Estimate the answer.

39 → 40
2 094 → 2 000

40 × 2 000 = 80 000

Use the lattice method to get the actual answer.

2	0	9	4	×
0 / 6	0 / 0	2 / 7	1 / 2	3
1 / 8	0 / 0	8 / 1	3 / 6	9
1	6	6	6	

81 666 is nearer to 80 000. The answer is reasonable.

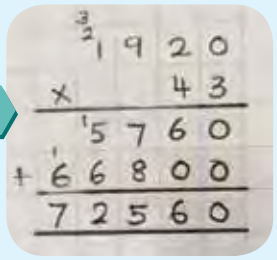
39 × 2 094 = **81 666**

TEACHER'S NOTES

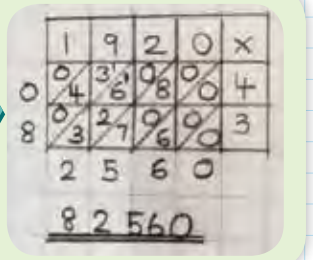
- Emphasise that numbers with many digits are arranged first for easier calculation.
- Surf https://www.ixl.com/math/grade-5/lattice-multiplication

Which calculation is correct, P or Q?

P



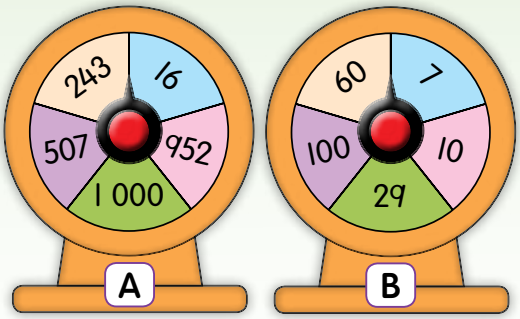
Q



MULTIPLICATION WHEEL

Materials Two number wheels and turn-taking table.

Participants 6 pupils.



How to play

1. Turn both wheels simultaneously.
2. Find the product of the two numbers shown by the arrows.
   For example, 29 and 1 000 becomes 29 × 1 000 = 29 000.
3. Referee checks the answer using a calculator. If it is correct, the referee marks a (✓) in the player's column.
4. Repeat step 1 to step 3 for 5 rounds.
5. The pupil with the most number of (✓) wins.

Kim	Ravi	Lisa	Nawi	Lin
		✓		✓
✓		✓	✓	
	✓	✓	✓	
✓	✓	✓		
✓			✓	✓

TEST YOURSELF

1 Calculate quickly.

(a) 92 × 10 = ____ (b) 105 × 100 = ____ (c) 64 × 1 000 = ____

(d) 57 × 1 thousands = ____ (e) 96 × ____ = 9 600 (f) ____ × 1 000 = 47 000

2 Solve these.

(a) 2 805 × 9 = ____ (b) 10 638 × 8 = ____ (c) 68 × 45 = ____

(d) 406 × 81 = ____ (e) 42 × 2 070 = ____ (f) 35 × 1 792 = ____

3 Show two ways to get the answers.

(a) Multiply 48 by 39. (b) Find the product of 103 and 54.

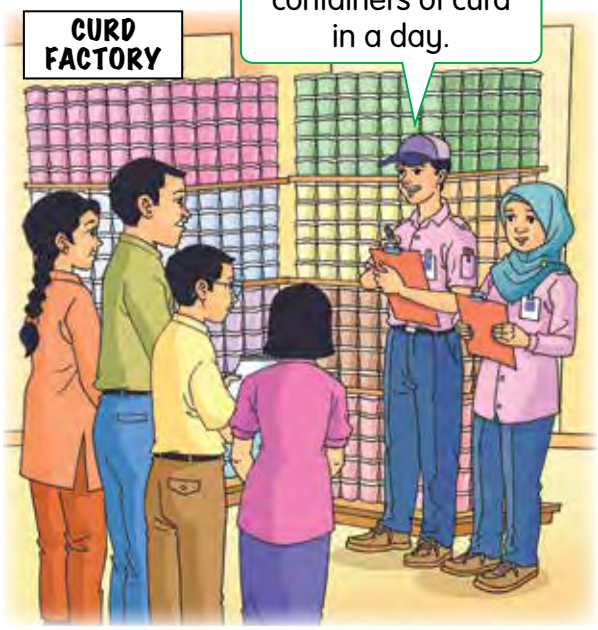
TEACHER'S NOTES

- Ask pupils to determine their turns and the referee before playing.
- Adjust the numbers used in the Mind Riddle activity according to pupils' abilities.

1.6.4

DIVISION

1



If there are 10 different flavours of curd of equal numbers, how many containers are there for each flavour?

12 400 ÷ 10 = ____

```
    1 2 4 0
10 ) 1 2 4 0 0
   − 1 0
     2 4
   − 2 0
       4 0
     − 4 0
         0 0
       −   0
           0
```

12 400 ÷ 10 = **1 240**

Each flavour has **1 240** containers.

2 Divide 59 300 by 100.

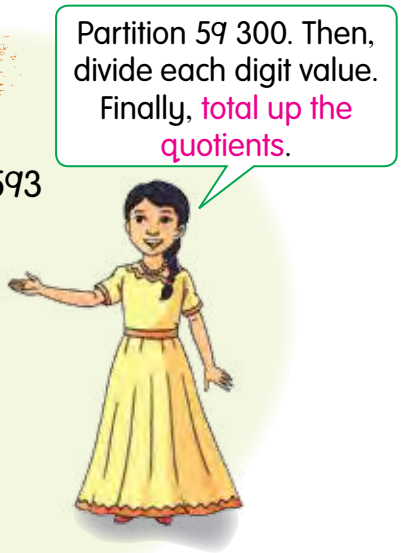
59 300 ÷ 100 = ____

Method 1

```
      5 9 3
100 ) 5 9 3 0 0
    − 5 0 0
        9 3 0
      − 9 0 0
          3 0 0
        − 3 0 0
            0
```

Method 2

```
      3
      9 0      } 593
      5 0 0
100 ) 5 9 3 0 0
    − 5 0 0 0
        9 3 0 0
      − 9 0 0 0
          3 0 0
        − 3 0 0
            0
```



59 300 ÷ 100 = **593**

TEACHER'S NOTES

- Provide a cross-number puzzle involving division of 10, 100 and 1 000.
- Discuss how to shift decimal points as a strategy in dividing by 10, 100 and 1 000.

3 43 000 ÷ 1 000 = ☐

Method 1

$$43\,000 \div 1\,000 = \frac{43\,\cancel{000}}{1\,\cancel{000}}$$
$$= 43$$

43 000 ÷ 1 000 = **43**

Method 2

43 000 ÷ 10 = 4 300
43 000 ÷ 100 = ☐
43 000 ÷ 1 000 = ☐

4 Wednesday 12.2.2020

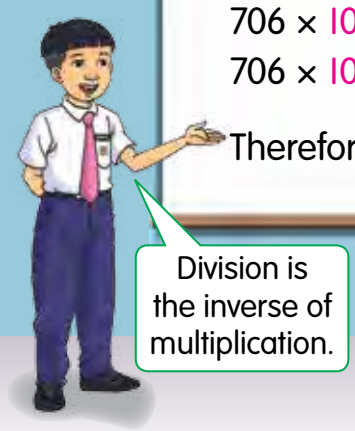
70 600 ÷ ☐ = 706

706 × 1 = 706
706 × 10 = 7 060
706 × 100 = 70 600

Therefore, 70 600 ÷ **100** = 706

☐ ÷ 1 000 = 85

85 × 1 = 85
85 × 10 = 850
85 × 100 = ☐
85 × 1 000 = ☐



Complete these.

57 200 ÷ 10 ☐ 60 800 ÷ 100

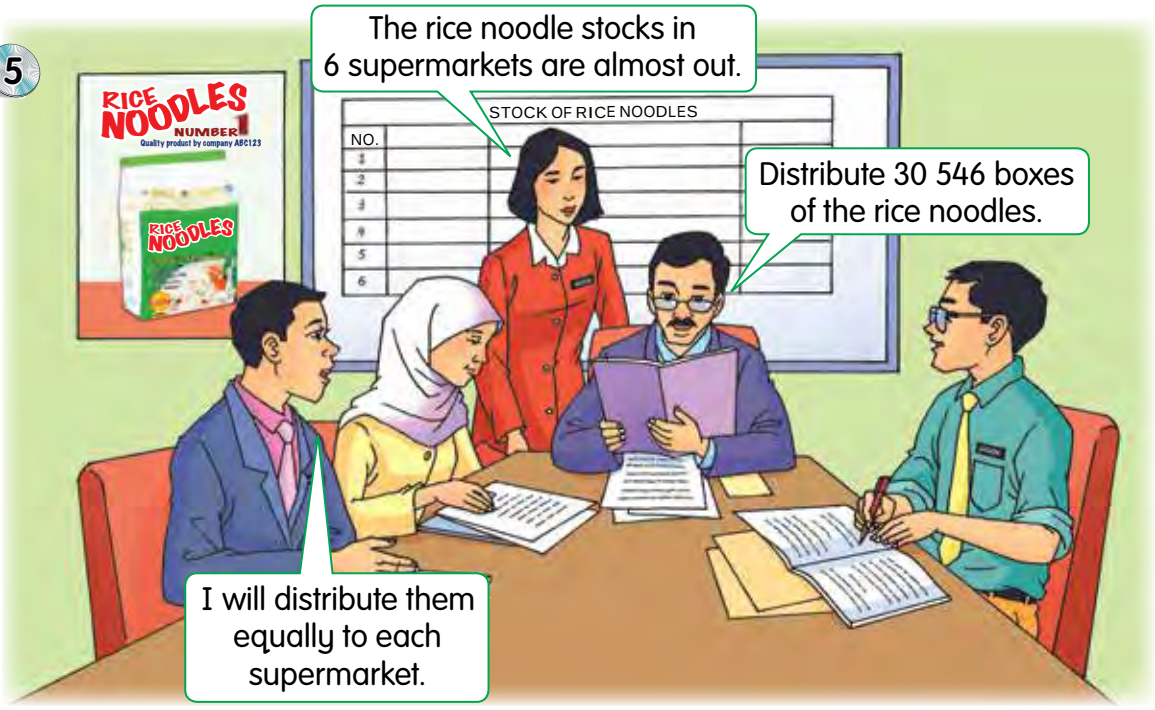
☐ 96 ☐

TEACHER'S NOTES

- Relate the division of any number by 10, 100 and 1 000 involving unknowns with multiplication and encourage pupils to use the elimination method to calculate.
- Emphasise that a pattern is formed when the same number is divided by 10, 100 and 1 000.

1.6.5

5



How many boxes of rice noodles are distributed to each supermarket?

30 546 ÷ 6 = ____

ten thousands	thousands	hundreds	tens	ones
0	0 5	0 5 0	0 5 0 9	0 5 0 9 1
6) 3 0 5 4 6	6) 3 0 5 4 6	6) 3 0 5 4 6	6) 3 0 5 4 6	6) 3 0 5 4 6
− 0	− 0	− 0	− 0	− 0
3	3 0	3 0	3 0	3 0
	− 3 0	− 3 0	− 3 0	− 3 0
	0	0 5	0 5	0 5
		− 0	− 0	− 0
		5	5 4	5 4
			− 5 4	− 5 4
			0	0 6
				− 6
				0

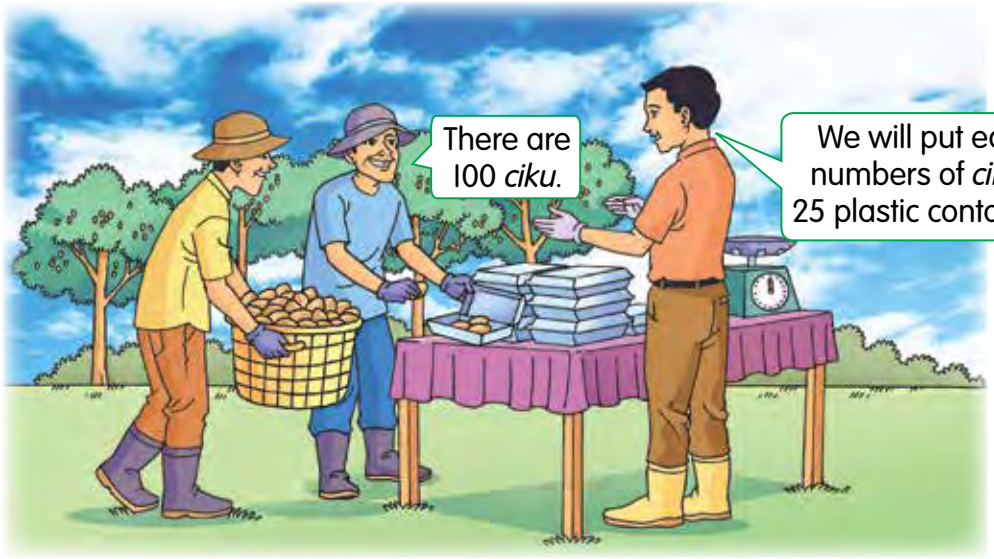
30 546 ÷ 6 = **5 091**

5 091 boxes of rice noodles are distributed to each supermarket.

TEACHER'S NOTES

- Emphasise memorisation of the times tables for an easier division process.

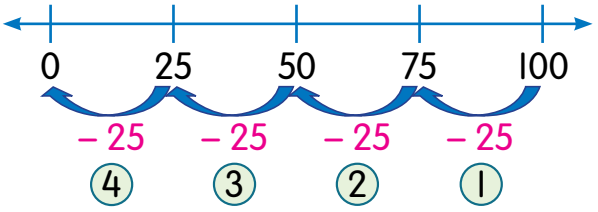
6



How many *ciku* are put in each container?

100 ÷ 25 = ☐

Method 1



Method 2

25 = 5 × 5

100 ÷ 25 = 100 ÷ 5 ÷ 5

$$\begin{array}{r} 20 \\ 5\overline{)100} \\ -10 \\ \hline 00 \\ -\ 0 \\ \hline 0 \end{array} \quad \Rightarrow \quad \begin{array}{r} 4 \\ 5\overline{)20} \\ -20 \\ \hline 0 \end{array}$$

100 ÷ 25 = **4**

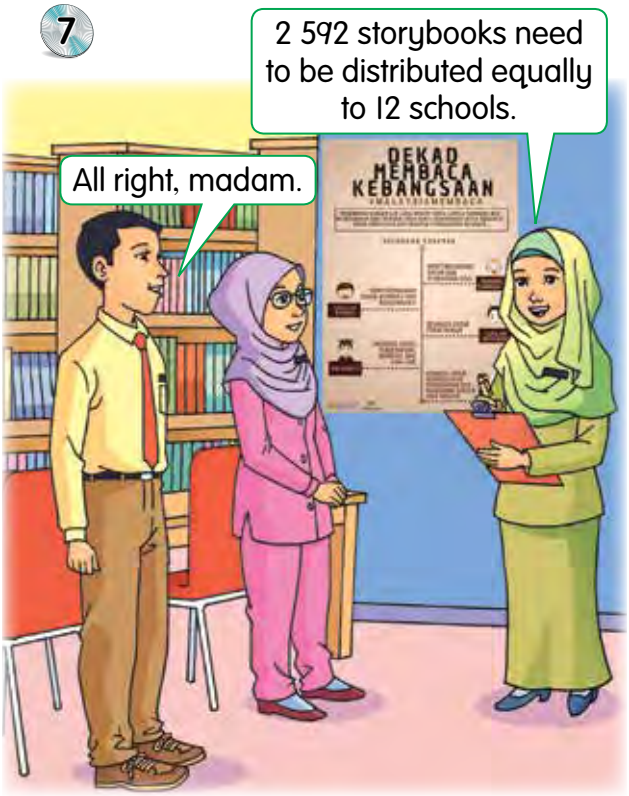
There are **4** *ciku* in each container.

Based on the number line method above, what is 175 divided by 25?

TEACHER'S NOTES

- Emphasise that division is repeated subtraction.
- Guide pupils to divide numbers without remainder through simulation using concrete objects and times tables.

7



How many storybooks does each school receive?

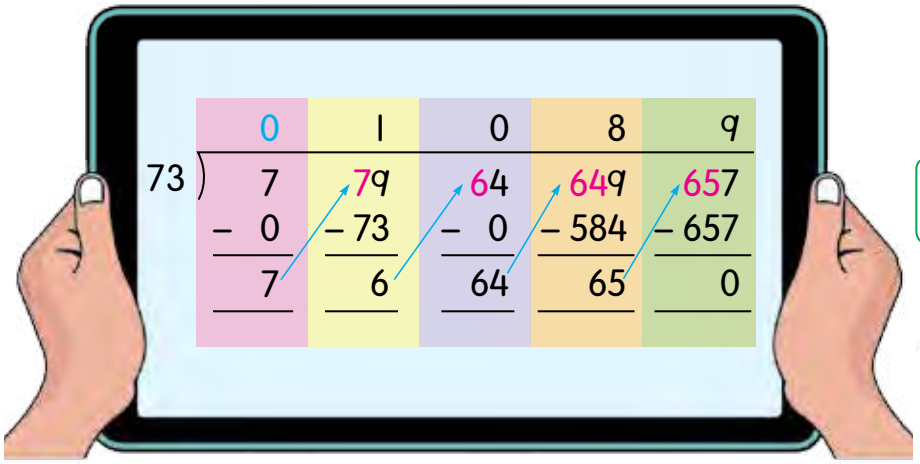
2 592 ÷ 12 = ☐

$$\begin{array}{r} 216 \\ 12\overline{)2592} \\ -24 \\ \hline 19 \\ -12 \\ \hline 72 \\ -72 \\ \hline 0 \end{array}$$

2 592 ÷ 12 = **216**

Each school receives **216** storybooks.

8 79 497 ÷ 73 = ☐



	0	1	0	8	9
73)	7	79	64	649	657
	− 0	− 73	− 0	− 584	− 657
	7	6	64	65	0

SCAN THIS

79 497 ÷ 73 = **1 089**

Use 12 096 ÷ 6 = 2 016 to answer 12 096 ÷ 24 = ☐.

TEACHER'S NOTES

- Emphasise to pupils to check their answers using multiplication to ensure that the answers are correct.

KPM

9 62 197 ÷ 1 000 = ☐

Method 1

$$\begin{array}{r} 62 \\ 1\,000\overline{)\,62\,197} \\ -60\,00\downarrow \\ \hline 2\,197 \\ -2\,000 \\ \hline 197 \end{array}$$

197 ← remainder

62 197 ÷ 1 000 = **62 remainder 197**

Method 2

62 197 ÷ 10 = 6 219 remainder 7

62 197 ÷ 100 = 621 remainder 97

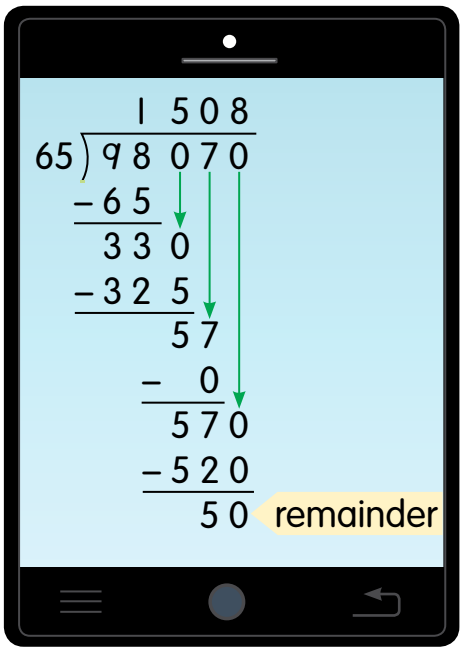
62 197 ÷ 1 000 = **62 remainder 197**

10 98 070 bottles of bath gel are to be distributed equally to 65 shops. How many bottles are left?

98 070 ÷ 65 = ☐

Build 65 times table from 6 and 5 times tables.

× 6	× 5	× 65
6	05	65
12	10	130
18	15	195
24	20	260
30	25	325
36	30	390
42	35	455
48	40	520
54	45	585



98 070 ÷ 65 = **1 508 remainder 50**

There are **50** bottles of bath gel left.

Check your answer using multiplication.

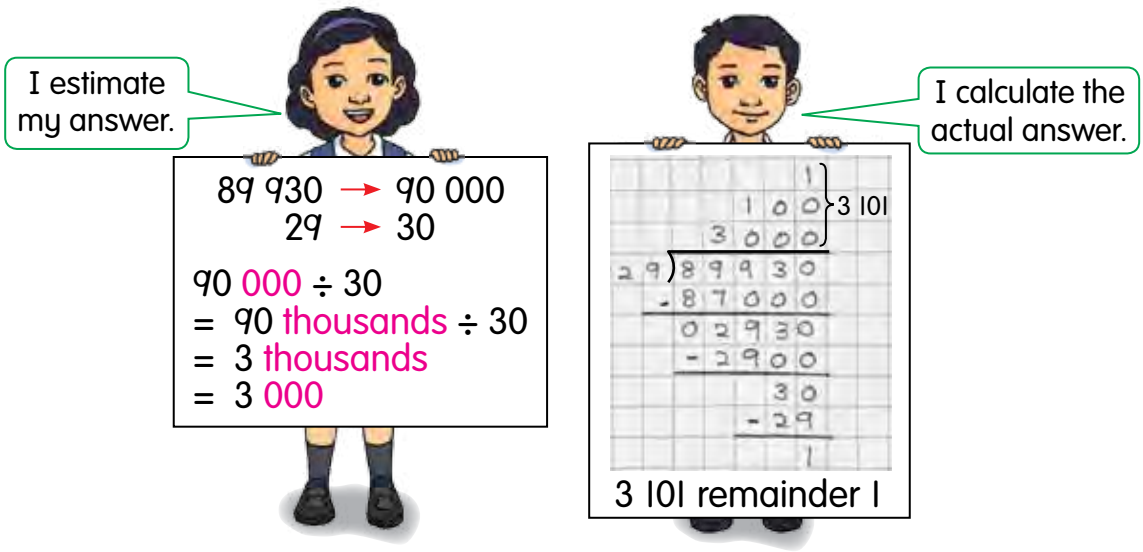
$$\begin{array}{r} {\scriptstyle 3\ \ 4} \\ {\scriptstyle 2\ \ 4} \\ 1\,508 \\ \times\quad 65 \\ \hline {\scriptstyle 1\ \ 1} \\ 7\,540 \\ +\ 90\,480 \\ \hline 98\,020 \end{array} \qquad \begin{array}{r} 98\,020 \\ +\quad 50 \\ \hline 98\,070 \end{array}$$

TEACHER'S NOTES

- Emphasise the importance of basic facts to solve division.
- Explain how to build 65 times table and other two-digit times tables.

1.6.5

11 89 930 ÷ 29 = ☐



3 101 remainder 1 is nearer to **3 000**. The answer is reasonable.

89 930 ÷ 29 = **3 101 remainder 1**

MIND TEASER

Use all the given digits to get the largest quotient.

9 2 3 6 7

☐☐☐☐☐ ÷ 100 = ☐☐☐ remainder 97

TEST YOURSELF

1 Calculate quickly.

a 4 090 ÷ 10 = ☐ b 64 500 ÷ 100 = ☐ c 15 000 ÷ 1 000 = ☐

d 87 000 ÷ 10= ☐ e 30 200 ÷ ☐ = 302 f ☐ ÷ 1 000 = 98

2 Divide.

a 98 392 ÷ 7 = ☐ b 44 856 ÷ 9 = ☐ c 162 ÷ 18 = ☐

d 9 282 ÷ 34 = ☐ e 51 982 ÷ 47 = ☐ f 49 599 ÷ 99 = ☐

3 Solve these.

a 17 245 ÷ 10 = ☐ b 36 402 ÷ 100 = ☐ c 98 324 ÷ 1 000 = ☐

d 65 369 ÷ 86 = ☐ e 5 618 ÷ 59 = ☐ f 48 904 ÷ 72 = ☐

TEACHER'S NOTES

• Surf https://ca.ixl.com/math/grade-5/divide-by-two-digit-numbers

MULTIPLICATION AND DIVISION

1

Mum ordered 8 boxes of cheese tarts. Each box has 6 pieces.

I help mum to place all of the cheese tarts equally onto 4 plates.

How many pieces of cheese tarts are there on each plate?

$8 \times 6 \div 4 =$ ____

Method 1

$$\begin{array}{r} 8 \\ \times\ 6 \\ \hline 48 \end{array}$$

$$\begin{array}{r} 12 \\ 4\overline{)\,48} \\ -\ 4 \\ \hline 08 \\ -\ 8 \\ \hline 0 \end{array}$$

Method 2

$$\frac{\overset{2}{\cancel{8}} \times 6}{\underset{1}{\cancel{4}}} = \frac{2 \times 6}{1}$$

$$= 12$$

$8 \times 6 \div 4 =$ **12**

Each plate has **12 pieces** of cheese tarts.

2 Multiply 630 by 15. Divide the product by 30.

$630 \times 15 \div 30 =$ ____

Method 1

$$\begin{array}{r} {\scriptstyle 1\ \ \ \ } \\ 630 \\ \times\ 15 \\ \hline 3150 \\ +\ 6300 \\ \hline 9450 \end{array}$$

$$\begin{array}{r} 315 \\ 30\overline{)\,9450} \\ -\ 90 \\ \hline 45 \\ -\ 30 \\ \hline 150 \\ -\ 150 \\ \hline 0 \end{array}$$

Method 2

$$\frac{\overset{21}{\cancel{630}} \times 15}{\underset{1}{\cancel{30}}} = 21 \times 15$$

$$= 315$$

$$\begin{array}{r} 21 \\ \times\ 15 \\ \hline 105 \\ +\ 210 \\ \hline 315 \end{array}$$

$630 \times 15 \div 30 =$ **315**

TEACHER'S NOTES

- Use a variety of simulation activities using objects, pictures, and diagrams.

3 $21 \times 3\,059 \div 7 = \boxed{}$

Method 1

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 3\,0\,5\,9 \\ \times \quad 2\,1 \\ \hline {\scriptstyle 1} \\ 3\,0\,5\,9 \\ +\,6\,1\,1\,8\,0 \\ \hline 6\,4\,2\,3\,9 \\ \hline \end{array}$$

$$\begin{array}{r} 9\,1\,7\,7 \\ 7\,\overline{)\,6\,4\,2\,3\,9} \\ -6\,3 \\ \hline 1\,2 \\ -\quad 7 \\ \hline 5\,3 \\ -\,4\,9 \\ \hline 4\,9 \\ -\,4\,9 \\ \hline 0 \end{array}$$

Method 2

$$\frac{3\,0\,5\,9 \times \cancel{2}^{\,3}\,1}{\cancel{7}_{\,1}} = \frac{3\,0\,5\,9 \times 3}{1}$$

$$= 9\,177$$

$$\begin{array}{r} {\scriptstyle 1\ 2} \\ 3\,0\,5\,9 \\ \times \quad 3 \\ \hline 9\,1\,7\,7 \\ \hline \end{array}$$

$1 \times 7 = 7$

$2 \times 7 = 14$

$3 \times 7 = 21$

$21 \times 3\,059 \div 7 = \boxed{9\,177}$

$\dfrac{4\,610 \times 18}{6} = \boxed{}$ $\dfrac{4\,610 \times 12}{4} = \boxed{}$

What can you conclude from the answers above?

TEACHER'S NOTES

- Encourage pupils to solve mixed operations by elimination if suitable.
- Guide pupils to use times tables to solve operations involving elimination.

4

How many pairs of shoes are distributed to Din's Shoe Shop?

14 100 ÷ 50 × 3 = ____

$$
\begin{array}{r}
282 \\
50\overline{)14\,100} \\
-\,100 \\
\hline
410 \\
-\,400 \\
\hline
100 \\
-\,100 \\
\hline
0
\end{array}
$$

2	8	2	×
0 / 6	2 / 4	0 / 6	3

0 → 8 → 4 → 6

14 100 ÷ 50 × 3 = **846**

846 pairs of shoes are distributed to Din's Shoe Shop.

TEACHER'S NOTES

- Guide pupils to write number sentences involving multiplication and division based on picture stimulus and solve it correctly.

5 Divide 89 000 by 1 000. Then, multiply the quotient by 67.

89 000 ÷ 1 000 × 67 = ☐

Step 1

$$\frac{89\,\cancel{000}}{1\,\cancel{000}} = 89$$

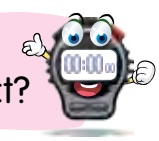
SCAN THIS

Step 2

$$\begin{array}{r} 89 \\ \times \quad 67 \\ \hline {}^{1\,1}63 \\ 560 \\ 540 \\ +\ 4800 \\ \hline 5963 \end{array}$$

89 000 ÷ 1 000 × 67 = **5 963**

8 900 ÷ 100 × 67 = 5 963.
Is the number sentence correct?



6 42 000 ÷ 42 × 100 = ☐

Step 1

$$\frac{\overset{1\,000}{\cancel{42\,000}}}{\underset{1}{\cancel{42}}} = 1\,000$$

Step 2

1 000 × 100 = 100 000

42 000 ÷ 42 × 100 = **100 000**

273 $\xrightarrow{\div 3}$ 91 $\xrightarrow{\times 100}$ ***P***

P $\xrightarrow{\times 4}$ ***Q*** $\xrightarrow{\div 10}$ ***R***

What is the value of ***R***?

TEST YOURSELF

1 Calculate.

a 72 × 8 ÷ 9 = ☐

b 96 ÷ 6 × 7 = ☐

c 120 × 5 ÷ 10 = ☐

d 800 ÷ 100 × 3 = ☐

e 87 × 34 ÷ 3 = ☐

f 90 656 ÷ 8 × 4 = ☐

g 96 × 28 ÷ 16 = ☐

h 182 ÷ 14 × 86 = ☐

2 Solve these.

a Multiply 100 by 500. Then divide the product by 20.

b Divide 78 000 by 1 000. Then multiply the quotient by 43.

TEACHER'S NOTES

- Encourage pupils to check their answers using calculators for questions in Test Yourself.

SOLVE THE PROBLEMS

1 The table shows the number of visitors to three tourist attractions.

Place	Crocodile farm	Water theme park	Butterfly park
Number of visitors	30 819	31 450	29 675

Total up the largest number of visitors and the number of visitors to the butterfly park. Round off to the nearest thousand.

Understand the problem

- Number of visitors: 30 819, 31 450, 29 675.
- Total up the largest number of visitors and the number of visitors to the butterfly park.
- Round off the answer to the nearest thousand.

Plan the strategy

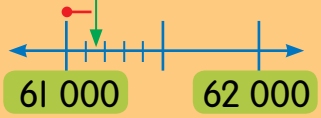
ten thousands	thousands	hundreds	tens	ones
3	0	8	1	9
3	1	4	5	0
2	9	6	7	5

31 450 + 29 675 = ▭ the largest value

Solve

```
  1 1  1
  31 450
+ 29 675
  61 125
```

61 125



61 125 rounded off to the nearest thousand is 61 000.

Check

Estimate the answer to the nearest thousand.

31 450 is nearer to 31 000.
29 675 is nearer to 30 000.

```
  31 000
+ 30 000
  61 000
```

61 125 is nearer to 61 000.
The answer is reasonable.

The total of the largest number of visitors and the number of visitors to the butterfly park is 61 125. 61 125 to the nearest thousand is **61 000**.

TEACHER'S NOTES

- Explain and emphasise the steps of problem-solving. Train pupils to underline important information.
- Provide more problem solving questions on addition, subtraction, multiplication, and division involving rounding off numbers.

2 Bella has eight number cards as follows:

1 473	1 463	1 468	1 448	1 458	1 453	1 478	1 488

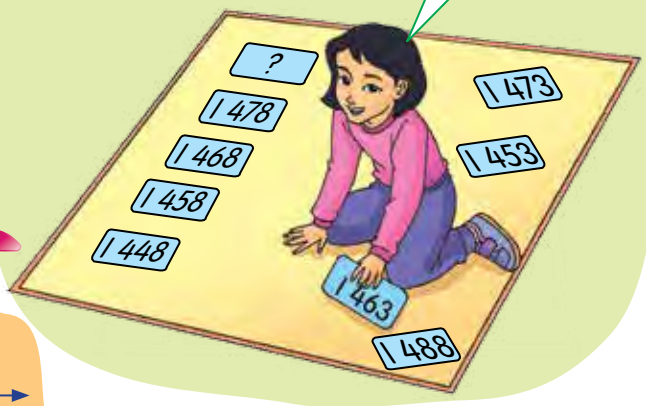
She needs to arrange all the even number cards in ascending order. What is the fifth number in the number pattern?

Understand the problem

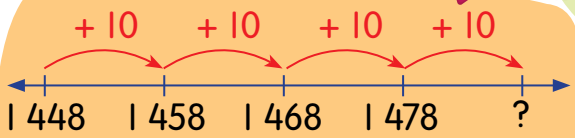
- Eight number cards: 1 473, 1 463, 1 468, 1 448, 1 458, 1 453, 1 478 and 1 488.
- Arrange even number cards in ascending order.
- Find the fifth number in the even number pattern.

Plan the strategy

Arrange the even number cards from the smallest to the largest values.



Solve



$$\begin{array}{r} 1\,478 \\ +\quad 10 \\ \hline 1\,488 \end{array}$$

The numbers increase by tens.
1 478 add 10 is 1 488.

Check

$$\begin{array}{r} 1\,488 \\ -\,1\,478 \\ \hline 10 \end{array}$$

The fifth number in the number pattern is **1 488**.

Find the difference between the largest even number and the smallest odd number from the number cards above.

TEACHER'S NOTES

- Carry out group activities to form six even numbers and odd numbers based on the number pattern given to the pupils.

3 The following table shows the number of cars on the roads in Perlis for the years 2013, 2014 and 2015.

Year	2013	2014	2015
Number of cars	71 505	3 075 more than in 2013	2 925 more than in 2014

Source: http://www.data.gov.my/data/ms_MY/dataset/bilangan-kenderaan-di-atas-jalan-raya-mengikut-negeri/resource/f0dffdea-354b-416a-90b2-b6ca471e603c

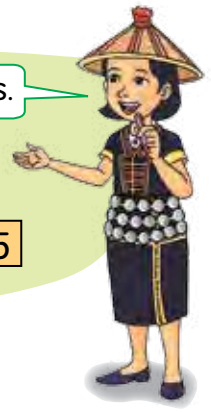
How many cars are there on the roads in Perlis for the year 2015?

Understand the problem

There are 71 505 cars in 2013.
In 2014, there are 3 075 cars more than the number of cars in 2013.
In 2015, there are 2 925 cars more than the number of cars in 2014.

Find the number of cars in 2015.

Plan the strategy



2013	71 505		
2014	71 505	3 075	
2015	71 505	3 075	2 925

Solve

71 505 + 3 075 + 2 925 = ☐

```
   1  1 1
  71 5 0 5
   3 0 7 5
+  2 9 2 5
  77 5 0 5
```

Check

```
     14
   6 4 10
  7 7 5 0 5
-  2 9 2 5
  74 5 8 0
```

```
     7 10
  74 5 8 0
-  3 0 7 5
  71 5 0 5
```

71 505 + 3 075 + 2 925 = **77 505**

There are **77 505** cars on the roads in Perlis for the year 2015.

TEACHER'S NOTES
- Provide more exercises in constructing number sentences based on daily life problems.
- Guide pupils to solve problems through simulations and check the answers.

4 During the environmental conservation campaign, a total of 27 600 mangrove tree seedlings were planted in districts R, S and T. Districts R and S were planted with 17 930 and 8 752 mangrove tree seedlings respectively. How many mangrove tree seedlings were planted in district T?

1 27 600 mangrove tree seedlings were planted in three districts. District R was planted with 17 930 mangrove tree seedlings. District S was planted with 8 752 mangrove tree seedlings. Find the number of mangrove tree seedlings in district T.

2

27 600		
17 930	8 752	?
R	S	T

27 600 – 17 930 – 8 752 = ☐

3

```
   16 15
   1 6  5 10
   2 7  6 0 0
 – 1 7  9 3 0
 ---------------
     9  6 7 0
```

```
   8 16 6 10
   9  6 7 0
 – 8  7 5 2
 ---------------
     9  1 8
```

4

```
  1 2 1 1
      9 1 8
    8 7 5 2
  + 17 9 3 0
  ---------
    27 6 0 0
```

Let's check. Add 918, 8 752 and 17 930.

27 600 – 17 930 – 8 752 = **918**

The number of mangrove tree seedlings planted in district T is **918**.

Now, explain how to check using estimation.

TEACHER'S NOTES

- Ask pupils to explain the steps taken in 1 to 4 above.
- Instil moral values of loving the environment. Explain the importance of growing mangrove trees in preserving the ecosystem.

5 The employees of Aina's mother prepared 10 500 packets of mango sticky rice for a food fair. 9 420 packets were sold. Then, 780 packets more were prepared. How many packets of mango sticky rice are there now?

Write important information.

- prepared 10 500 packets of mango sticky rice
- sold 9 420 packets of mango sticky rice
- then made 780 packets more
- calculate the current number of packets of mango sticky rice

Draw a diagram. Write the number sentence.

10 500		780
9 420	?	780

10 500 – 9 420 + 780 = ☐

Solve

$$\begin{array}{r} {\scriptstyle 010\ 410} \\ \not{1}\not{0}\ 5\not{0}\not{0} \\ -\ \ 9\ 4\ 2\ 0 \\ \hline \ \ 1\ 0\ 8\ 0 \end{array} \qquad \begin{array}{r} {\scriptstyle 1} \\ 1\ 0\ 8\ 0 \\ +\ \ 7\ 8\ 0 \\ \hline 1\ 8\ 6\ 0 \end{array}$$

Check

$$\begin{array}{r} {\scriptstyle 1} \\ 1\ 0\ 5\ 0\ 0 \\ +\ \ \ 7\ 8\ 0 \\ \hline 1\ 1\ 2\ 8\ 0 \end{array} \qquad \begin{array}{r} {\scriptstyle 10} \\ {\scriptstyle 0\not{0}\ 12} \\ \not{1}\not{1}\ \not{2}80 \\ -\ \ 9\ 4\ 2\ 0 \\ \hline \ \ 1\ 8\ 6\ 0 \end{array}$$

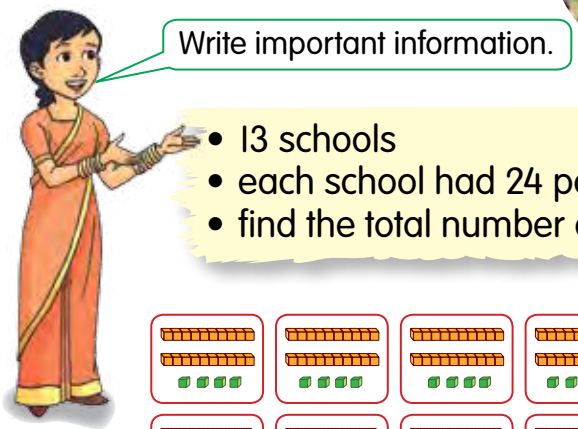
10 500 – 9 420 + 780 = **1 860**

Now, there are **1 860** packets of mango sticky rice.

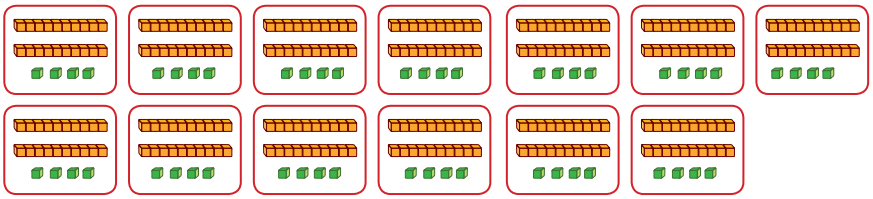
TEACHER'S NOTES

- Encourage pupils to do mental calculations while solving addition and subtraction, and check the answers.
- Surf https://ca.ixl.com/math/grade-5/multi-step-word-problems

6 13 schools sent 24 participants each for several sports events. Find the total number of participants involved.


Write important information.

- 13 schools
- each school had 24 participants
- find the total number of participants



$13 \times 24 =$ ☐

$$\begin{array}{r} {}^{1} \\ 13 \\ \times\ 24 \\ \hline {}^{1}52 \\ +\ 260 \\ \hline 312 \\ \hline \end{array}$$

$13 \times 24 =$ **312**

$13 = 10 + 3$
$24 = 20 + 4$

×	20	4	Total
10	200	40	240
3	60	12	72
Total	260	52	312

I check using this method.

The total number of participants involved is **312**.

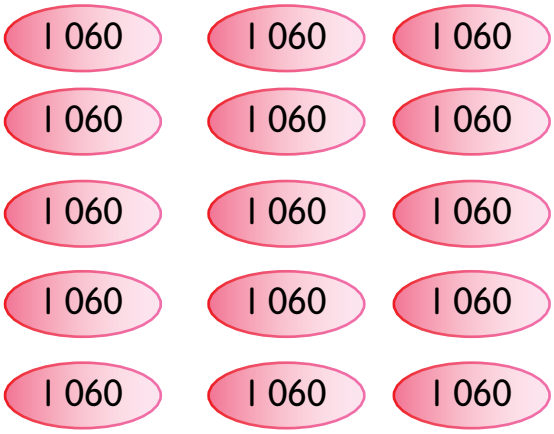
If there are 100 sports events and each event is participated by 125 participants, calculate the total number of the participants.

TEACHER'S NOTES
- In pairs, conduct quizzes to construct number sentences based on the given problems before solving it.
- Surf https://ca.ixl.com/math/grade-5/multiply-by-2-digit-numbers-word-problems

7 The table shows number of *songket* shoes and batik canvas shoes sold during the Malaysian Batik Festival.

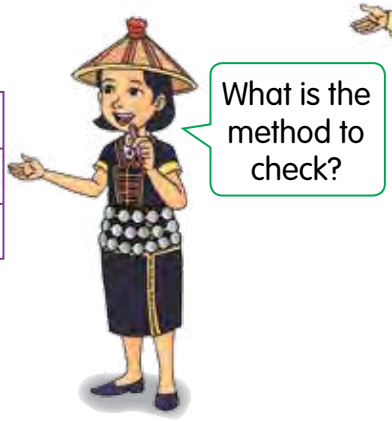
Shoe type	*Songket*	Batik canvas
Total (pairs)	1 060	15 times the number of *songket* shoes

How many batik canvas shoes are sold?



15 × 1 060 = ____

1	0	6	0	×
0 1	0 0	0 6	0 0	1
0 5	0 0	3 0	0 0	5
5	9	0	0	



15 × 1 060 = **15 900**

The number of batik canvas shoes sold is **15 900** pairs.

Write a number sentence to find the total number of *songket* and batik canvas shoes.

• Encourage pupils to use pictorial representation as a solving strategy.

TEACHER'S NOTES

8

Thursday 20.2.2020

Underline the important information.

A factory produces 14 186 powerbanks in a day. 32 powerbanks are put in each box. How many boxes are needed? What is the remainder?

Each box has 32 powerbanks.

14 186 ÷ 32 = ☐

```
        4 4 3
32 ) 1 4 1 8 6
   - 1 2 8
       1 3 8
     - 1 2 8
         1 0 6
       -   9 6
           1 0
```

```
      1
      4 4 3
  ×     3 2
    1 1
      8 8 6
+ 1 3 2 9 0
  1 4 1 7 6
```

```
  1 4 1 7 6
+       1 0
  1 4 1 8 6
```

I check using multiplication and then add the remainder.

14 186 ÷ 32 = **443 remainder 10**

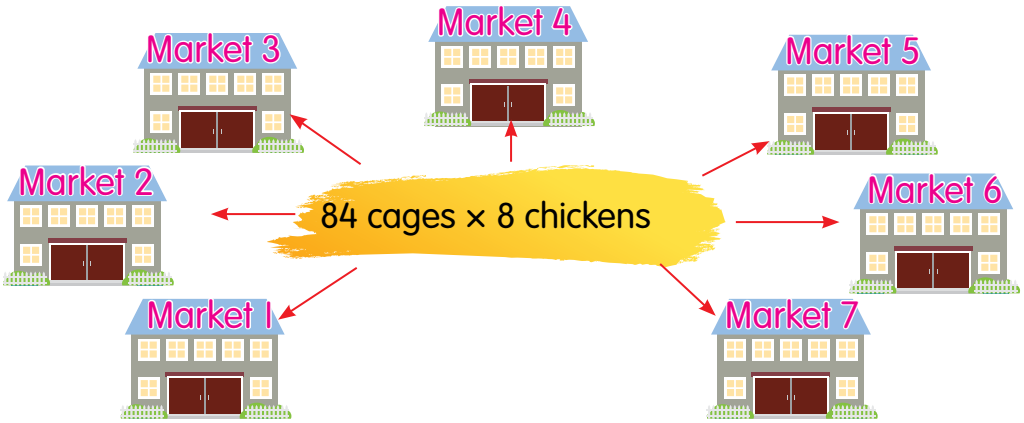
The number of boxes needed is **443**.
The remainder is **10** powerbanks.

TEACHER'S NOTES
- Surf https://www.ixl.com/math/grade-5/divide-2-digit-and-3-digit-numbers-by-2-digit-numbers-word-problems

9 A poultry farm worker puts 84 cages of chickens into a lorry. Each cage has 8 chickens. The cages are distributed equally to 7 markets. How many chickens are sent to each market?

Given 84 cages. Each cage has 8 chickens.
Distribute equally to 7 markets.

Find Total number of chickens that are sent to each market.



Number sentence $84 \times 8 \div 7 =$ ☐

Calculate

$$\begin{array}{r} {\scriptstyle 3} \\ 84 \\ \times \quad 8 \\ \hline 672 \end{array} \rightarrow 7\overline{)672} \quad \begin{array}{r} 96 \\ -63 \\ \hline 42 \\ -42 \\ \hline 0 \end{array}$$

Check

$$\begin{array}{r} {\scriptstyle 4} \\ 96 \\ \times \quad 7 \\ \hline 672 \end{array} \rightarrow 8\overline{)672} \quad \begin{array}{r} 84 \\ -64 \\ \hline 32 \\ -32 \\ \hline 0 \end{array}$$

$84 \times 8 \div 7 =$ **96**

96 chickens are sent to each market.

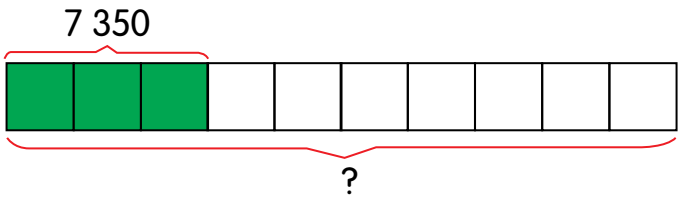
If the chickens are sent to 14 markets, how many chickens does each market receive?

TEACHER'S NOTES
- Use drawing a diagram strategy to solve problems.

10 3 machines are used to print 7 350 pamphlets. Each machine can print an equal number of pamphlets. How many pamphlets can 10 similar machines print?

Given 3 machines to print 7 350 pamphlets.

Find Number of pamphlets that can be printed by 10 machines.



Number sentence $7\,350 \div 3 \times 10 = \boxed{}$

Calculate

$$\begin{array}{r} 2\,4\,5\,0 \\ 3\,\overline{)\,7\,3\,5\,0} \\ -6 \\ \hline 1\,3 \\ -1\,2 \\ \hline 1\,5 \\ -1\,5 \\ \hline 0\,0 \\ -\,0 \\ \hline 0 \end{array} \longrightarrow \begin{array}{r} 2\,4\,5\,0 \\ \times 1\,0 \\ \hline 2\,4\,5\,0\,0 \\ \hline \end{array}$$

Check

$$\frac{24\,50\cancel{0} \times 3}{1\cancel{0}} = 2\,450 \times 3$$

$$= 7\,350$$

$$\begin{array}{r} {\scriptstyle 1\,1} \\ 2\,4\,5\,0 \\ \times 3 \\ \hline 7\,3\,5\,0 \\ \hline \end{array}$$

$7\,350 \div 3 \times 10 = \boxed{\mathbf{24\,500}}$

The number of pamphlets that 10 similar machines can print is **24 500**.

Can the problem be solved this way?

$7\,350 \div 3 \times 10 = 7\,350 \div 30$

Discuss.

TEACHER'S NOTES

- Use other strategies such as working backwards and building models in solving problems.

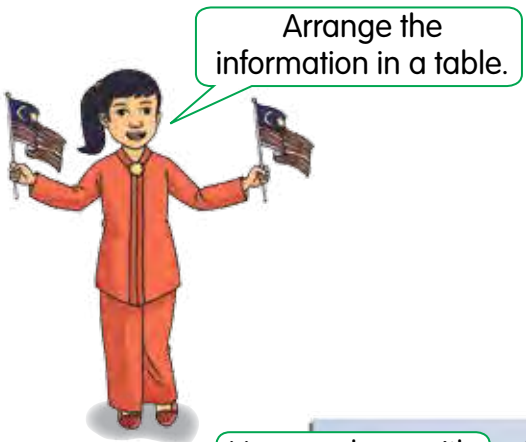
11 The following are items ordered by a school cooperative in conjunction with the *merdeka* month.

Badge
715

Jalur Gemilang
?

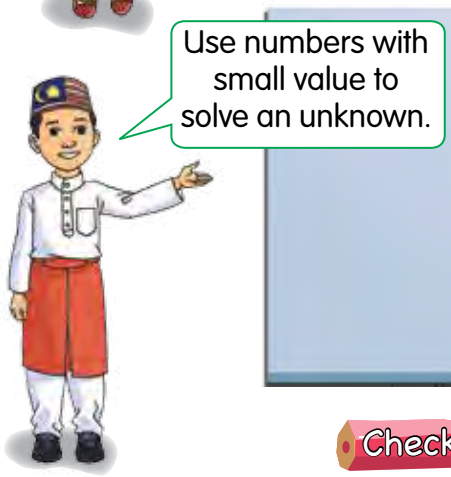
Magnet
4 030

The total number of items ordered is 21 680. What is the number of *Jalur Gemilang* ordered?



Item	Number of items
Badge	715
Jalur Gemilang	
Magnet	4 030
Total	21 680

715 + ☐ + 4 030 = 21 680



1 + 4 + 3 = 8
4 + 4 = 8
4 = 8 − 4

$$\begin{array}{r} 715 \\ +\ 4030 \\ \hline 4745 \\ \hline \end{array} \qquad \begin{array}{r} \overset{10}{1\cancel{0}16710} \\ \cancel{2}\cancel{1}\cancel{6}\cancel{8}\cancel{0} \\ -\ 4745 \\ \hline 16935 \\ \hline \end{array}$$

Check

$$\begin{array}{r} \overset{1}{1}6\overset{1}{9}35 \\ +\ 715 \\ \hline 17650 \\ \hline \end{array} \qquad \begin{array}{r} \overset{1}{1}7650 \\ +\ 4030 \\ \hline 21680 \\ \hline \end{array}$$

715 + **16 935** + 4 030 = 21 680

The number of *Jalur Gemilang* ordered is **16 935**.

TEACHER'S NOTES
- Provide questions on several daily life situations involving unknowns and ask pupils to solve them in pairs.

12 Amirah has 32 pieces of biscuits. Jasmin has ***p*** pieces of biscuits. Their total number of biscuits is 50 pieces. What is the value of ***p***?

Given Amirah has 32 pieces of biscuits. Jasmin has ***p*** pieces of biscuits. Total number of biscuits is 50 pieces.

Find The value of ***p***.

32	***p***
50	

Number sentence $32 + p = 50$

Calculate

$32 + p = 50$

$p = 50 - 32$

$p = 18$

Check $32 + 18 = 50$

$32 + 18 = 50$

The value of ***p*** is **18**.

13 Jack needs to install ***y*** fire extinguishers. 24 fire extinguishers have been installed. 11 fire extinguishers have not been installed. What is the value of ***y***?

Given To install ***y*** fire extinguishers.
24 fire extinguishers installed.
11 fire extinguishers not installed.

Find The value of ***y***.

y	
24	11

Number sentence $y - 24 = 11$

Calculate

$y - 24 = 11$

$y = 11 + 24$

$y = 35$

Check $35 - 24 = 11$

$35 - 24 = 11$

The value of ***y*** is **35**.

TEACHER'S NOTES

- Guide pupils to solve problems involving unknowns in front of and in the middle of a number sentence.

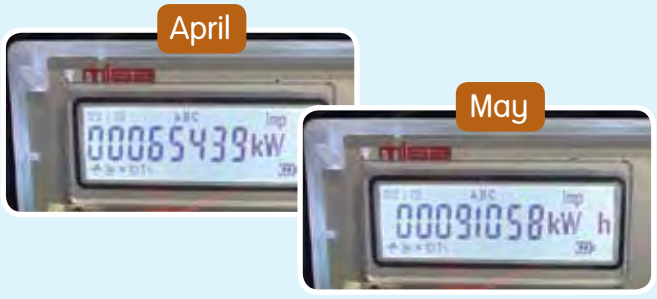
TEST YOURSELF

1 Sugang chooses one of the cards below.

62 481	78 016	65 703	77 245

The number on the chosen card becomes 70 000 when rounded off to the nearest ten thousand. Which card is chosen by Sugang?

2 The picture shows electricity metre readings for a factory in April and May. Calculate the difference between the two readings.



3 1 375 pieces of vouchers were distributed to every school. Calculate the number of vouchers distributed to 25 schools.

4 Read the dialogue below.

Punitha: My sister has 14 801 social media friends.

Liman: My brother has 2 928 more friends than your sister.

How many social media friends does Liman's brother have?

5 A health product company sold 34 780 products in January, February, and March. The number of products sold in January and February are 15 432 and 8 095 respectively. Find the number of products sold in March.

6 An employee of Nadia's father grills 69 840 sticks of frozen satay. 40 sticks of satay are put into each container. How many containers of satay are there?

TEACHER'S NOTES

- Provide more exercises on questions of different levels of difficulty in the form of quizzes or worksheets to be solved in groups or in pairs.
- Encourage pupils to check their answers using calculators.

7 A seller prepares 2 600 pieces of chocolate waffles. 900 pieces are donated to an orphanage. Then, the seller prepares 1 480 pieces of peanut waffles. He sends all the waffles to several child care centres. Calculate the number of waffles that are sent to the child care centres.

8 Anis buys 7 boxes of dates for a breaking of fast event. Each box has 35 dates. Anis's mother repackages them into several plastic bags of 5 dates each. Find the number of plastic bags of dates.

9 84 720 newspapers were distributed equally every day in April. Calculate the number of newpapers distributed per week.

10 In conjunction with the Go Green Campaign, about 20 000 trees were planted in several recreational parks. The number of trees planted was rounded off to the nearest ten thousand. Give three possible values for the number of trees planted.

11 Siti buys 12 purple orchids and ***y*** white orchids. The total number of purple and white orchids is 36. What is the value of ***y***?

12 A block of flats has a total of 90 units of houses. ***p*** units of houses are occupied while 15 units are unoccupied. Find the value of ***p***.

13 The table shows the number of ducks in four cages. The total number of ducks in cages R and S is equal to the total number of ducks in cages T and U. Find the value of ***k***.

Cage	R	S	T	U
Number of ducks	14	15	17	***k***

TEACHER'S NOTES

- Surf https://ca.ixl.com/math/grade-5 to obtain reinforcement exercises involving problem solving questions.

Tools/ Materials

16 question cards, papers, pens, question number grids and 7 markers for each colour.

Participants

5 pupils (4 players and 1 referee).

question number grid

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

Arrange the numbers in descending order. 43 096, 43 069, 43 960, 43 609 — 15

A plane can accommodate 246 passengers. How many passengers can 15 similar planes accommodate? — 13

Write 67 095 in words. — 12

Determine whether 1 295 is an even number or an odd number. — 9

Find the sum of 48 925 and 37 106. — 3

State the place value of 9 in 92 105. — 8

72 ÷ 12 × 15 = ☐ — 2

24 509, 25 509, 26 509, ☐ What is the fourth number? — 10

Round off 59 720 to the nearest ten thousand. — 7

30 000 beads

Jar T

What is the estimated number of beads in Jar T? — 16

Eng Ban has 70 pieces of stamps. He has ***m*** pieces of Malaysia stamps and 18 pieces of foreign stamps. What is the value of ***m***? — 5

How many more is 64 198 compared to 28 106? — 6

Find the product of 479 and 83. — 1

The total number of Rizal's postcards is 20 times more than Fini's. Rizal has 48 000 postcards. What is the total number of Fini's postcards? — 14

90 + 200 + y = 80 290. What is the value of ***y***? — 11

76 684 ÷ 38 = ☐ — 4

How to play

1. Players take turns to choose a coloured marker and a question card.
2. Write all calculations and answers on a paper.
3. The referee checks each answer. If the answer is correct, the player puts a marker on the question number grid. If the answer is incorrect, the player returns the question card to its original place.
4. Continue playing until all question cards are answered correctly.
5. The player with the most markers wins.

TEACHER'S NOTES

- Decide the turns by tossing a dice. Make sure every question card is labelled with numbers 1 to 16.
- Include higher level questions if pupils have acquired all skills in the question cards given.

1.1 - 1.9

MIND CHALLENGE

1 Write the numbers in numerals or words.

(a) 92 145 (b) 60 174 (c) 51 096

(d) thirty-five thousand and sixteen

(e) forty thousand and sixty-two

(f) one hundred thousand

2 State the place values and digit values for the underlined digits.

(a) 19 719 (b) 34 238 (c) 75 406

3 Complete these.

(a) 72 193 = 70 000 + 2 000 + ☐ + 90 + ☐

(b) ☐ = 300 + 5 000 + 90 000 + 4

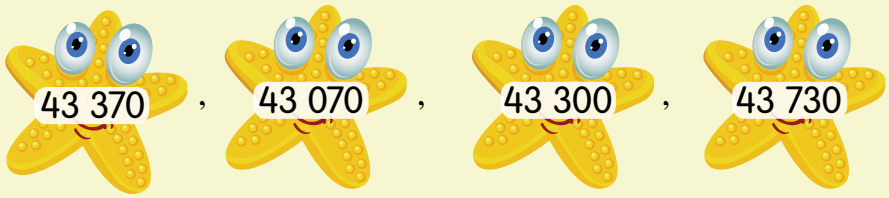
(c) 61 087 = 6 ten thousands + ☐ + ☐ + 8 tens + 7 ones

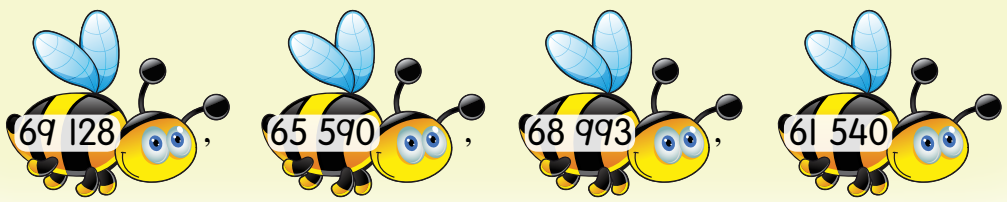
(d) ☐ = 3 tens + 2 ones + 1 hundreds + 8 ten thousands + 0 thousands

4 List the even and odd numbers based on the number cards below.

3 245	4 100	5 012	2 053	1 898	1 401

5 Arrange the numbers in ascending and descending orders.

(a) 

(b) 

TEACHER'S NOTES

- Provide more questions on even and odd numbers, and number sequence in ascending and descending orders to enhance pupils' understanding.

1.1.1, 1.1.2

KPM

6 Estimate the following quantities:

a

11 000 beads ☐

b

☐ 15 litres

7 Complete the following number patterns.

a 14 053 , 14 060 , 14 067 , ☐ , ☐

b 20 749 , 20 740 , ☐ , 20 722 , ☐

c 61 264 , ☐ , 63 264 , ☐ , 65 264

8 a Round off the following numbers to the nearest ten thousand.

i 43 170 ii 29 003 iii 70 986 iv 99 051

b Give two numbers that become 50 000 when rounded off to the nearest ten thousand.

9 State "more than" or "less than".

a 65 209 ☐ 65 290

b 32 084 ☐ 30 284

c 47 961 ☐ 47 916

d 97 004 ☐ 97 040

10 Solve these.

a 40 279 + 1 620 = ☐

b 18 043 + 2 645 + 972 = ☐

c 78 175 – 2 155 = ☐

d 40 000 – 12 315 – 5 932 = ☐

11 Multiply.

a 12 082 × 7 = ☐

b 37 × 94 = ☐

c 709 × 65 = ☐

d 2 703 × 10 = ☐

e 486 × ☐ = 48 600

f ☐ × 1 000 = 24 000

TEACHER'S NOTES

- Provide more questions on estimation of quantities involving length and mass based on the reference set.

1.1.2 (iii), 1.3.1, 1.4.1, 1.5.2, 1.6.1, 1.6.2, 1.6.3, 1.6.4

12 Divide.

(a) 75 096 ÷ 7 = ☐

(b) 920 ÷ 23 = ☐

(c) 16 470 ÷ 54 = ☐

(d) 20 880 ÷ 36 = ☐

(e) 2 076 ÷ 1 hundreds = ☐

(f) 57 148 ÷ 1 thousands = ☐

13 Complete the number sentences.

(a) 13 800 – 7 903 = ☐

(b) 15 000 – 380 = ☐

(c) 60 000 – ☐ = 17 690

(d) ☐ + 24 713 = 50 000

14 Calculate.

(a) 800 – 129 + 755 = ☐

(b) 64 980 + 4 526 – 137 = ☐

(c) 36 ÷ 9 × 7 = ☐

(d) 504 × 11 ÷ 8 = ☐

15 Find the values of *f*.

(a) 8 + *f* = 15 (b) *f* + 13 = 20 (c) *f* – 6 = 5 (d) 17 – *f* = 10

16 Solve the following problems:

(a) Every month, different number of flowers are used to decorate an entrance of a shop. In July, 25 roses are used. In August and September, 33 roses and 41 roses are used respectively. If this pattern continues, how many roses will be used in November?

(b) The competition scores of several camping activities are recorded on a scoreboard. The score of camping equipment activity is not shown. The total score of four competitions is 34 260. What is the score of the camping equipment activity?

Competition	Score
Cooking	8 970
March	7 825
Camping equipment	☐
Cultural night	8 540

(c) 20 760 people participated in a charity run in 2018. The total number of participants in 2019 is 1 798 more than those who participated in 2018.

(i) How many participants took part in the charity run in 2019?

(ii) Find the total number of participants in the charity run for the years 2018 and 2019.

TEACHER'S NOTES

- Provide more problem solving questions involving daily life situations such as teacher's day celebration, sports day, and canteen day.

1.6.1, 1.6.2, 1.6.5, 1.7.1, 1.7.2, 1.8.1, 1.8.2, 1.9.1, 1.9.2

d The table shows rubber production in April 2015, March 2016, and April 2016.

Year	April 2015	March 2016	April 2016
Production (metric tonnes)	21 847 less than in March 2016	57 697	15 911 less than in March 2016

Source: https://www.dosm.gov.my/v1/uploads/files/1_Articles_By_Themes/Agriculture/PERANGKAAN_GETAH_APRIL_2016.pdf

i How many metric tonnes of rubber is produced in April 2015?

ii Calculate the total number of metric tonnes of rubber produced in March and April 2016.

e Each container has 12 jelly moulds. Jenny has 14 containers. She uses all the moulds to make jelly.

i How many jellies does she make?

ii Jenny serves 4 jellies on each plate to be given to her neighbours. How many plates does she need?

f The table shows the number of participants of Penang Public Library Reading Campaign.

Month	June	July
Number of participants	10 314	971 less than the month of June

Source: http://www.data.gov.my/data/ms_MY/dataset/aktiviti-galakan-membaca-perpustakaan-awam-pulau-pinang/resource/38645e50-f8c0-4bd5-b012-73719839fef4

Calculate the number of participants in June and July.

g

City	R	S	T
Number of foreign workers	?	Twice the number of foreign workers in R	Triple the number of foreign workers in R

The total number of foreign workers in cities R, S and T is 15 702.

i Calculate the number of foreign workers in City R.

ii How many foreign workers are there in City T?

h Kaswini buys ***h*** pieces of envelopes. She uses 13 pieces of the envelopes. There are 12 pieces left. What is the value of ***h***?

TEACHER'S NOTES

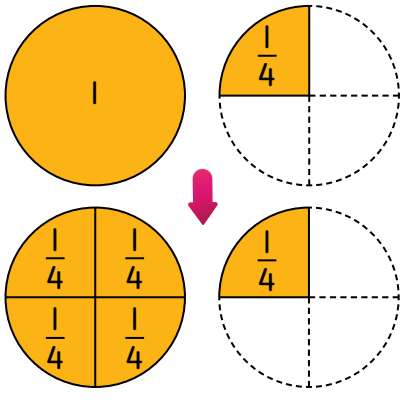
- Provide more questions involving unknowns. Train pupils to build number sentences in solving problems and check answers using calculators.

1.9.1
1.9.2

2 FRACTIONS, DECIMALS, AND PERCENTAGES

CONVERT IMPROPER FRACTIONS AND MIXED NUMBERS

1 State $1\frac{1}{4}$ as an improper fraction.



$1\frac{1}{4}$ is 1 and $\frac{1}{4}$.

$1\frac{1}{4}$ is $\frac{4}{4}$ and $\frac{1}{4}$. There are $\frac{5}{4}$ altogether.

$$1\frac{1}{4} = \frac{5}{4}$$

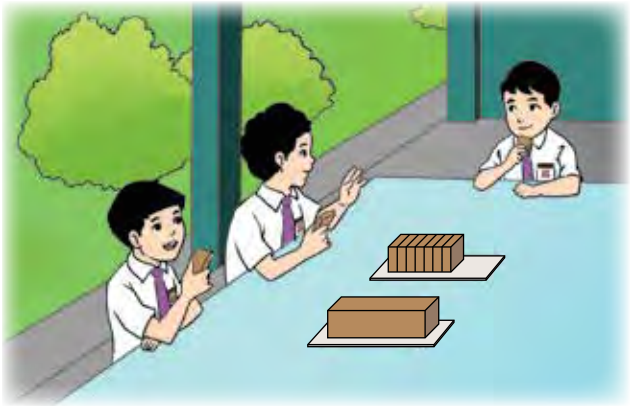
SCAN THIS

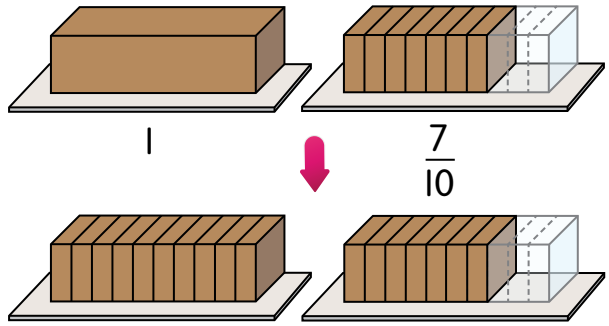
TEACHER'S NOTES

- Scan the QR Code provided to enhance understanding on converting mixed numbers to improper fractions.
- Pupils search for information regarding prices, percentages, and fractions from supermarket brochures. Discuss.
- Surf http://www.webmath.com/convfract.html to convert mixed numbers to improper fractions and vice versa.

2 Convert $1\frac{7}{10}$ to an improper fraction.

$1\frac{7}{10} = \square$

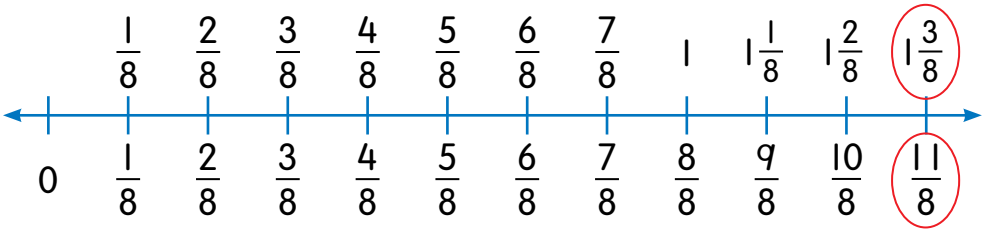




$$\frac{10}{10} + \frac{7}{10} = \frac{17}{10}$$

$$1\frac{7}{10} = \boxed{\frac{17}{10}}$$

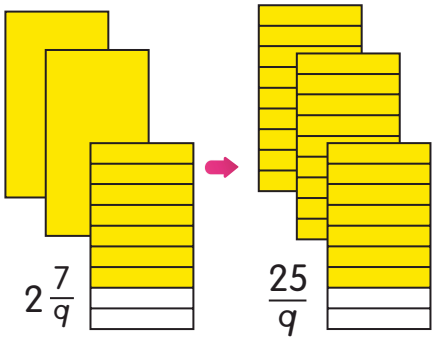
3 $1\frac{3}{8} = \square$



$$1\frac{3}{8} = \boxed{\frac{11}{8}}$$

Is $1\frac{5}{8}$ equal to $\frac{13}{8}$?

4 $2\frac{7}{9} = \square$



$$2\frac{7}{9} = \frac{2 \times 9 + 7}{9}$$

$$= \frac{18 + 7}{9}$$

$$= \frac{25}{9}$$

$$2\frac{7}{9} = \boxed{\frac{25}{9}}$$

TIPS

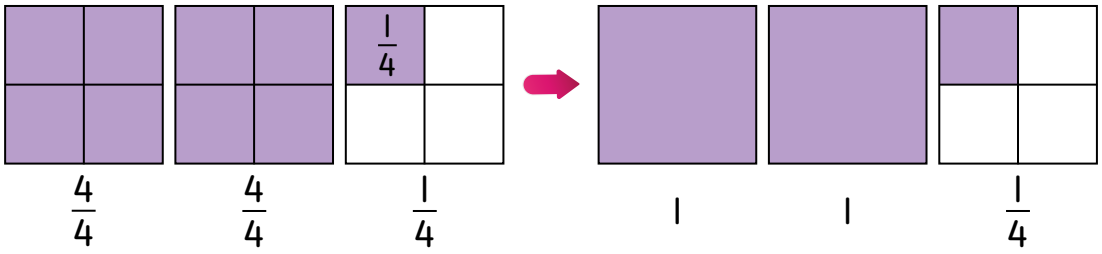
$2 \; {}^{+}_{\times} \; \frac{7}{9}$

1. Multiply the whole number with the denominator.
2. Add the product to the numerator.
3. The answer is the new numerator.
4. Retain the denominator.

TEACHER'S NOTES

- Surf https://www.mathsisfun.com/improper-fractions.html which explains the concept of converting mixed numbers to improper fractions.

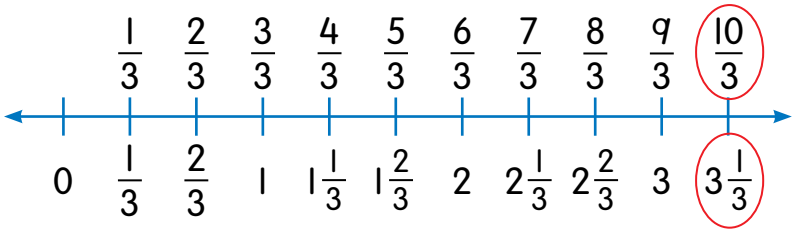
5 Convert $\frac{9}{4}$ to a mixed number.



$\frac{9}{4} = 2\frac{1}{4}$

Explain how to convert $\frac{11}{4}$ to a mixed number.

6 State $\frac{10}{3}$ in mixed number.



$\frac{10}{3} = 3\frac{1}{3}$

What is the mixed number for $\frac{11}{3}$? Discuss.

7 $\frac{22}{7} = \square$

whole number → 3

denominator → 7) 22

− 21

numerator → 1

$\frac{22}{7} = 3\frac{1}{7}$

TIPS

$3\frac{1}{7}$

- Quotient as whole number.
- Remainder as numerator.
- Divisor as denominator.

$\frac{15}{4}$ is not equal to $4\frac{1}{4}$. Why?

TEACHER'S NOTES

- Enhance pupils' understanding regarding improper fractions and mixed numbers using objects, paper folding, fraction charts, or transparencies.
- Stress on the correct way to write mixed numbers and improper fractions.

8 $\frac{13}{5} = \square$

Method 1

$$\frac{13}{5} = \frac{5}{5} + \frac{5}{5} + \frac{3}{5}$$
$$= 1 + 1 + \frac{3}{5}$$
$$= 2\frac{3}{5}$$

Method 2

$$\begin{array}{r} 13 \\ -\ 5 \\ \hline 8 \\ -\ 5 \\ \hline 3 \end{array} \quad \begin{array}{l} \to 1 \\ \\ \to 1 \end{array} \Big\} 2$$

Numerator

$2\frac{3}{5}$

Whole number

Denominator

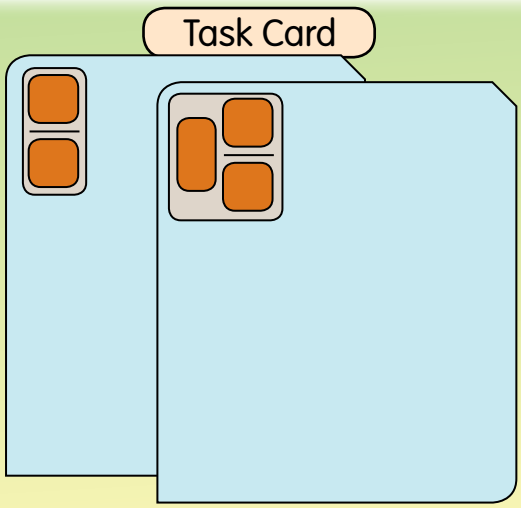
$$\frac{13}{5} = \boxed{2\frac{3}{5}}$$

FUN EXPLORATION

Tools/Materials Task card and pencil.

How to play

1. Write a mixed number and an improper fraction.
2. Convert the mixed number to an improper fraction and vice versa using two different methods.
3. Check your answers with your friends.
4. Keep all your work in a folio.



MIND TEASER

What is the fraction and mixed number that can be formed from 9 parts of $\frac{1}{8}$? Show your answer.

TEST YOURSELF

1. State mixed numbers in improper fractions.

   a $5\frac{2}{3}$ b $2\frac{9}{10}$ c $17\frac{1}{2}$ d $28\frac{1}{5}$

2. Convert improper fractions to mixed numbers.

   a $\frac{5}{2}$ b $\frac{15}{7}$ c $\frac{21}{4}$ d $\frac{31}{10}$

TEACHER'S NOTES

- Provide more paper folding activities to enhance pupils' understanding on the process of converting improper fractions to mixed numbers.

ADDITION OF FRACTIONS

1

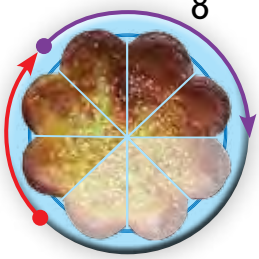
I ate 2 out of 8 parts of *kuih bakar*.

I ate 3 parts of *kuih bakar*.

What is the total fraction of *kuih bakar* eaten?

$\frac{3}{8}$ eaten

$\frac{2}{8}$ eaten



$\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$

They ate $\frac{5}{8}$ of the *kuih bakar*.

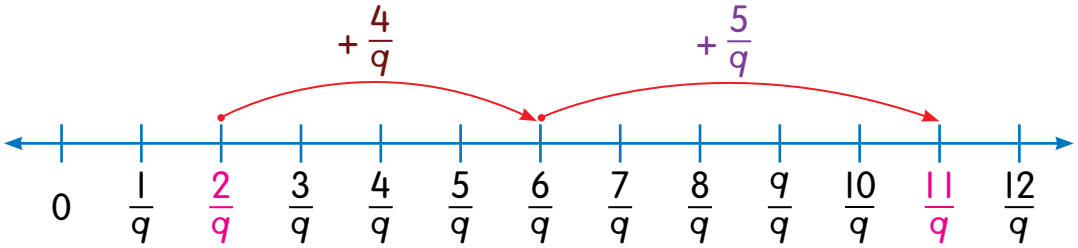
Add the numerator only. Retain the denominator.

$\frac{2}{7} + \frac{4}{7} = \frac{6}{14}$

Is the answer correct? Prove it.

2 Add $\frac{2}{q}$, $\frac{4}{q}$ and $\frac{5}{q}$.

$\frac{2}{q} + \frac{4}{q} + \frac{5}{q} =$ ☐



$\frac{11}{q} = \frac{q}{q} + \frac{2}{q}$

$= 1 + \frac{2}{q}$

$= 1\frac{2}{q}$

$\frac{q}{q} = 1$

$\frac{2}{q} + \frac{4}{q} + \frac{5}{q} = 1\frac{2}{q}$

TEACHER'S NOTES

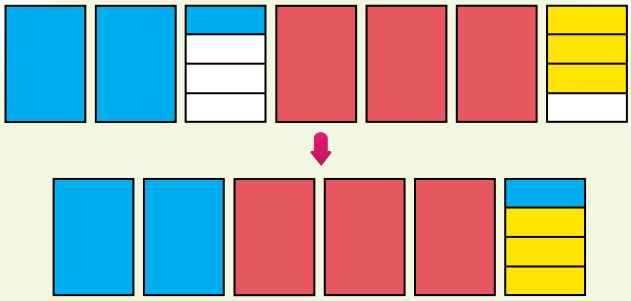
- Emphasise that if the final answer is in improper fraction, convert it to mixed number.
- Provide more simulation activities on addition of fractions using concrete materials.

3 $2\frac{1}{4} + 3 + \frac{3}{4} = \square$

Method 1

$$2\frac{1}{4} + 3 + \frac{3}{4} = 2\frac{1}{4} + \frac{3}{4} + 3$$
$$= 2\frac{4}{4} + 3$$
$$= 3 + 3$$
$$= 6$$

Method 2



$$2\frac{1}{4} + 3 + \frac{3}{4} = 2 + 3 + \frac{1}{4} + \frac{3}{4}$$
$$= 5 + \frac{4}{4}$$
$$= 5 + 1$$
$$= 6$$

$2\frac{1}{4} + 3 + \frac{3}{4} = \mathbf{6}$

4 $2\frac{1}{10} + 4\frac{9}{10} + 1\frac{7}{10} = \square$

$$2\frac{1}{10} + 4\frac{9}{10} + 1\frac{7}{10}$$
$$= 2 + 4 + 1 + \frac{1}{10} + \frac{9}{10} + \frac{7}{10}$$
$$= 7 + \frac{10}{10} + \frac{7}{10}$$
$$= 7 + 1 + \frac{7}{10}$$
$$= 8\frac{7}{10}$$

$2\frac{1}{10} + 4\frac{9}{10} + 1\frac{7}{10} = \mathbf{8\frac{7}{10}}$

5 $\frac{2}{3} + \square = 2\frac{1}{3}$

$$\frac{2}{3} + \square = \frac{2 \times 3 + 1}{3}$$
$$\frac{2}{3} + \square = \frac{7}{3}$$
$$\frac{2}{3} + \frac{5}{3} = \frac{7}{3}$$

$7 = 2 + \boxed{5}$

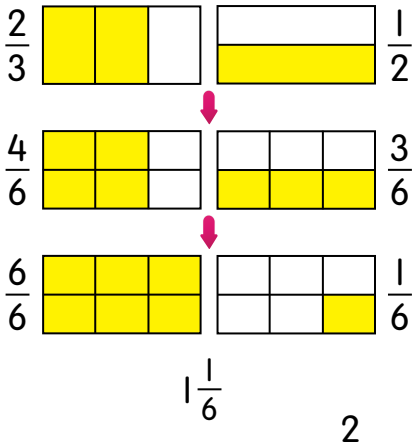
$$\frac{5}{3} = \frac{3}{3} + \frac{2}{3}$$
$$= 1\frac{2}{3}$$

$\frac{2}{3} + \mathbf{1\frac{2}{3}} = 2\frac{1}{3}$

- Train pupils to use simplifying techniques to find the unknowns.
- Provide more exercises on the addition of fractions involving mixed numbers, proper fractions, and whole numbers to enhance pupils' understanding.

6 $\frac{2}{3} + \frac{1}{2} =$ ☐

Method 1



Method 2

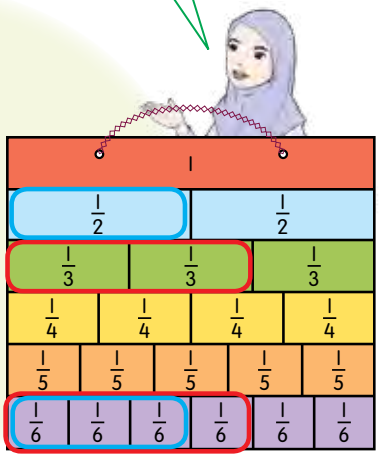
$\frac{2}{3} + \frac{1}{2} = \frac{4}{6} + \frac{3}{6}$

$= \frac{7}{6}$

$= \frac{6}{6} + \frac{1}{6}$

$= 1\frac{1}{6}$

Change to equivalent fractions with the same denominator.



$\frac{2}{3} + \frac{1}{2} = 1\frac{1}{6}$

7 $\frac{9}{10} + 2\frac{5}{6} =$ ☐

$\frac{9}{10} + 2\frac{5}{6} = \frac{9 \times 3}{10 \times 3} + 2\frac{5 \times 5}{6 \times 5}$

$= \frac{27}{30} + 2\frac{25}{30}$

$= 2\frac{52}{30}$

$= 2 + \frac{30}{30} + \frac{22}{30}$

$= 2 + 1 + \frac{22}{30}$

$= 3 + \frac{22 \div 2}{30 \div 2}$

$= 3\frac{11}{15}$

$\frac{9}{10} + 2\frac{5}{6} = 3\frac{11}{15}$

6 and 10 times tables

6	10
12	20
18	30
24	40
30	50

The answer must be in the simplest form.

8 $4\frac{7}{9} + 1\frac{6}{7} =$ ☐

$4\frac{7}{9} + 1\frac{6}{7} = 4 + 1 + \frac{7}{9} + \frac{6}{7}$

$= 4 + 1 + \frac{7 \times 7}{9 \times 7} + \frac{6 \times 9}{7 \times 9}$

$= 5 + \frac{49}{63} + \frac{54}{63}$

$= 5 + \frac{103}{63}$

$= 5 + \frac{63}{63} + \frac{40}{63}$

$= 5 + 1 + \frac{40}{63}$

$= 6\frac{40}{63}$

$4\frac{7}{9} + 1\frac{6}{7} = 6\frac{40}{63}$

TEACHER'S NOTES

- Train pupils to obtain the smallest common denominator using times tables and the cross multiplication method.
- Make sure the answer is in the simplest form.

9 $\frac{2}{3} + 7 + 1\frac{1}{6} =$ ☐

Calculation 1

$\frac{2}{3} + 7 + 1\frac{1}{6} = \frac{2}{6} + 7 + 1 + \frac{1}{6}$

$= 8 + \frac{3 \div 3}{6 \div 3}$

$= 8\frac{1}{2}$

Calculation 2

$\frac{2}{3} + 7 + 1\frac{1}{6} = \frac{2 \times 2}{3 \times 2} + 7 + 1 + \frac{1}{6}$

$= 7 + 1 + \frac{4}{6} + \frac{1}{6}$

$= 8 + \frac{5}{6}$

$= 8\frac{5}{6}$

Which answer is correct, $8\frac{1}{2}$ or $8\frac{5}{6}$?

10 $1\frac{3}{10} + 8\frac{1}{2} + \frac{4}{5} =$ ☐

$1\frac{3}{10} + 8\frac{1}{2} + \frac{4}{5} = \frac{13}{10} + \frac{17}{2} + \frac{4}{5}$

$= \frac{13}{10} + \frac{17 \times 5}{2 \times 5} + \frac{4 \times 2}{5 \times 2}$

$= \frac{13}{10} + \frac{85}{10} + \frac{8}{10}$

$= \frac{106}{10}$

$= 10\frac{6}{10}$

$$\begin{array}{r} 10 \\ 10\overline{)\,106} \\ -\,100 \\ \hline 6 \end{array}$$

2, 5 and 10 times tables

2	5	10
4	10	20
6	15	30
8	20	40
10	25	50
12	30	60
14	35	70
16	40	80
18	45	90
20	50	100

The smallest common denominator is 10.

Is the answer in the simplest form? Discuss.

TEST YOURSELF

Solve these.

a $\frac{6}{7} + \frac{4}{7} =$ ☐

b $\frac{2}{3} + \frac{1}{3} + 2\frac{2}{3} =$ ☐

c $\frac{4}{9} + \frac{1}{3} =$ ☐

d $3\frac{5}{6} + \frac{2}{3} =$ ☐

e $1\frac{7}{8} + 3\frac{1}{4} =$ ☐

f $2\frac{1}{5} + \frac{1}{3} + 6 =$ ☐

g $4\frac{1}{3} + \frac{1}{2} + 2\frac{5}{6} =$ ☐

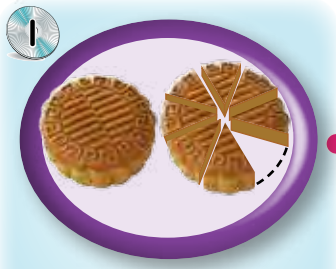
h $2\frac{2}{5} +$ ☐ $= 6\frac{3}{5}$

i $\frac{7}{8} +$ ☐ $= 4\frac{3}{8}$

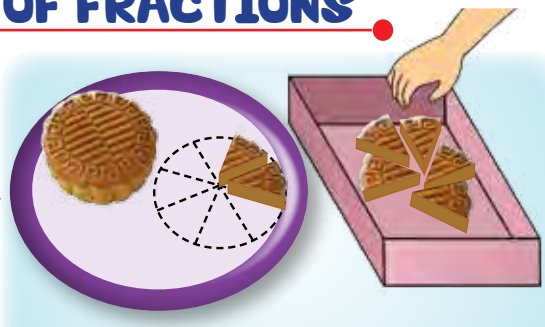
TEACHER'S NOTES

- Ask pupils to do exercises in https://www.calculatorsoup.com/calculators/math/adding-fractions-calculator.php
- Explain to pupils that the smallest common denominator needs to be obtained to ensure the answers are in the simplest form.

SUBTRACTION OF FRACTIONS



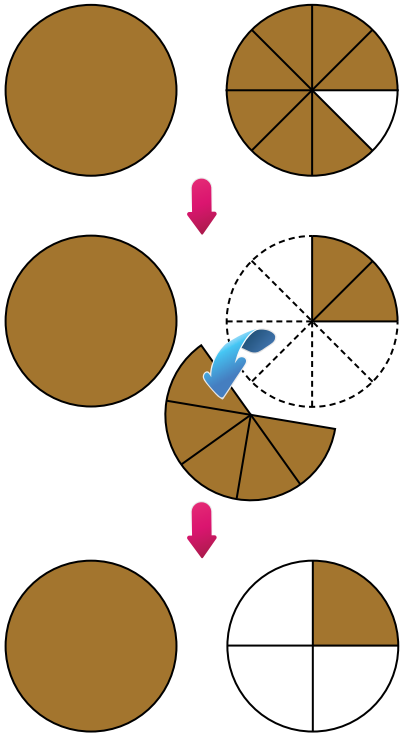
$1\frac{7}{8}$ mooncakes



5 out of 8 parts were taken

How many parts of the mooncakes are left?

$$1\frac{7}{8} - \frac{5}{8} = \square$$

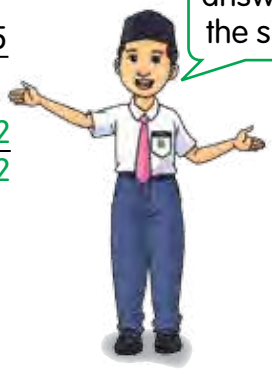


$$1\frac{7}{8} - \frac{5}{8} = 1\frac{7-5}{8}$$

$$= 1\frac{2 \div 2}{8 \div 2}$$

$$= 1\frac{1}{4}$$

$$1\frac{7}{8} - \frac{5}{8} = \boxed{1\frac{1}{4}}$$



There are $1\frac{1}{4}$ parts of the mooncakes left.

$\frac{3}{8} - \frac{1}{8} = \boxed{\frac{2}{0}}$. Is this correct? Discuss.

TEACHER'S NOTES

- Emphasise that the denominator must be of the same value before subtracting the fraction.
- Demonstrate the activities above using a paper cutting.

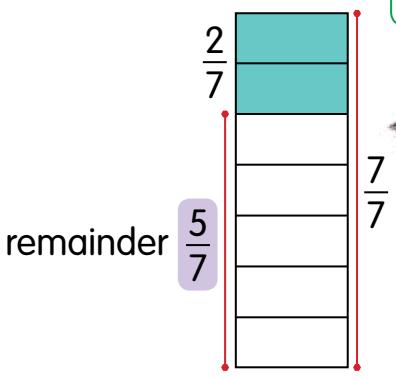
2 Find the remainder when $\frac{2}{7}$ is subtracted from 1.

$1 - \frac{2}{7} =$ ☐

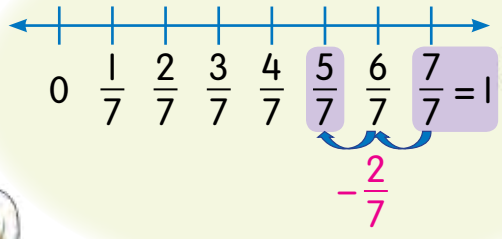
Method 1

$1 - \frac{2}{7} = \frac{7}{7} - \frac{2}{7}$

$= \frac{5}{7}$



Method 2

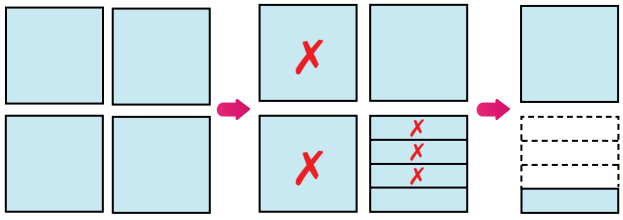


$1 - \frac{2}{7} = \frac{5}{7}$

3 Calculate the difference between 4 and $2\frac{3}{4}$.

$4 - 2\frac{3}{4} =$ ☐

Method 1



$4 - 2\frac{3}{4} = 3\frac{4}{4} - 2\frac{3}{4}$

$= 3 - 2 + \frac{4-3}{4}$

$= 1\frac{1}{4}$

$4 - 2\frac{3}{4} = 1\frac{1}{4}$

Method 2

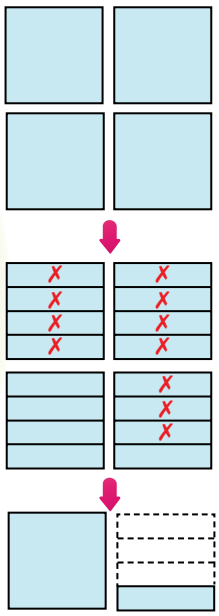
$4 - 2\frac{3}{4} = \frac{4 \times 4}{1 \times 4} - \frac{11}{4}$

$= \frac{16}{4} - \frac{11}{4}$

$= \frac{5}{4}$

$= \frac{4}{4} + \frac{1}{4}$

$= 1\frac{1}{4}$



- In pairs, carry out an activity on subtraction of two fractions. Each pair is asked to calculate using Method 1 or Method 2. Compare their answers by using pair and check.
- Carry out simulation activities to explain the concept of subtracting a fraction from a whole number as shown in example 3.

4 $6\frac{4}{q} - \frac{2}{q} - 2\frac{7}{q} = \square$

Method 1

$6\frac{4}{q} - \frac{2}{q} - 2\frac{7}{q} = \frac{58}{q} - \frac{2}{q} - \frac{25}{q}$

$= \frac{31}{q}$

$= 3\frac{4}{q}$

$$\begin{array}{r} 3 \\ q\overline{)\,31} \\ -\,27 \\ \hline 4 \end{array}$$

Method 2

$6\frac{4}{q} - \frac{2}{q} - 2\frac{7}{q} = 6\frac{4-2}{q} - 2\frac{7}{q}$

$= 6\frac{2}{q} - 2\frac{7}{q}$

$= 5\frac{q}{q} + \frac{2}{q} - 2\frac{7}{q}$

$= 5\frac{11}{q} - 2\frac{7}{q}$

$= 3\frac{4}{q}$

$6\frac{4}{q} - \frac{2}{q} - 2\frac{7}{q} = \mathbf{3\frac{4}{q}}$

5 Subtract $1\frac{1}{6}$ from $5\frac{2}{5}$.

$5\frac{2}{5} - 1\frac{1}{6} = \square$

$5\frac{2}{5} - 1\frac{1}{6} = 5\frac{2 \times 6}{5 \times 6} - 1\frac{1 \times 5}{6 \times 5}$

$= 5\frac{12}{30} - 1\frac{5}{30}$

$= 5 - 1 + \frac{12-5}{30}$

$= 4\frac{7}{30}$

5 and 6 times tables

5	6
10	12
15	18
20	24
25	30
30	36

$5\frac{2}{5} - 1\frac{1}{6} = \mathbf{4\frac{7}{30}}$

6 $3\frac{1}{3} - \square = 1\frac{1}{3}$

$3\frac{1}{3} - \square = 1\frac{1}{3}$

$\frac{10}{3} - \frac{6}{3} = \frac{4}{3}$

$4 = 10 - 6$

$\frac{6 \div 3}{3 \div 3} = \frac{2}{1}$

$= 2$

$3\frac{1}{3} - \mathbf{2} = 1\frac{1}{3}$

SCAN THIS

TEACHER'S NOTES

- Scan the QR Code to obtain additional explanations on the subtraction of fractions involving unknowns.
- Train pupils to use times tables to get the smallest common denominator which is also known as the Least Common Multiple (LCM).

7 $4\frac{7}{8} - \frac{1}{2} - 2\frac{2}{3} =$ ☐

Method 1

$$4\frac{7}{8} - \frac{1}{2} - 2\frac{2}{3} = 4\frac{7 \times 3}{8 \times 3} - \frac{1 \times 12}{2 \times 12} - 2\frac{2 \times 8}{3 \times 8}$$

$$= 4\frac{21}{24} - \frac{12}{24} - 2\frac{16}{24}$$

$$= 2\frac{5}{24} - \frac{12}{24}$$

$$= 1\frac{24 + 5}{24} - \frac{12}{24}$$

$$= 1\frac{29}{24} - \frac{12}{24}$$

$$= 1\frac{17}{24}$$

2, 3 and 8 times tables

2	3	8
4	6	16
6	9	24
8	12	32
10	15	40
12	18	48
14	21	56
16	24	64
18	27	72
20	30	80
22	33	88
24	36	96

Method 2

$$4\frac{7}{8} - \frac{1}{2} - 2\frac{2}{3} = \frac{39}{8} - \frac{1}{2} - \frac{8}{3}$$

$$= \frac{39 \times 3}{8 \times 3} - \frac{1 \times 12}{2 \times 12} - \frac{8 \times 8}{3 \times 8}$$

$$= \frac{117 - 12 - 64}{24}$$

$$= \frac{41}{24}$$

$$= 1\frac{17}{24}$$

$$24\overline{)41}\ 1$$
$$-24$$
$$17$$

$4\frac{7}{8} - \frac{1}{2} - 2\frac{2}{3} =$ **$1\frac{17}{24}$**

Step 1 $4\frac{7}{8} - \frac{1}{2} =$ ☐

Step 2 ☐ $- 2\frac{2}{3} =$ ☐

Discuss if the question above is solved using this method.

- Ask pupils to solve other questions using the two methods above and present their work.
- Surf https://www.calculatorsoup.com/calculators/math/adding-fractions-calculator.php

8 $10 - 8\frac{5}{6} - \frac{8}{q} =$ ☐

$10 - 8\frac{5}{6} - \frac{8}{q} = q\frac{6}{6} - 8\frac{5}{6} - \frac{8}{q}$

$= 1\frac{1}{6} - \frac{8}{q}$

$= 1\frac{1 \times 3}{6 \times 3} - \frac{8 \times 2}{q \times 2}$

$= 1\frac{3}{18} - \frac{16}{18}$

$= \frac{21}{18} - \frac{16}{18}$

$= \frac{5}{18}$

$10 - 8\frac{5}{6} - \frac{8}{q} = \boxed{\frac{5}{18}}$

6 and q times tables

6	q
12	18
18	27
24	36
30	45
36	54

$\frac{\square}{\square} - \frac{\square}{\square} - \frac{\square}{\square} = \frac{1}{2}$

What are the three fractions that could represent this number sentence?

TEST YOURSELF

1 Calculate.

(a) $2\frac{4}{7} - 1\frac{2}{7} =$ ☐

(b) $3 - 2\frac{7}{q} =$ ☐

(c) $6\frac{5}{8} - \frac{3}{8} - 2\frac{1}{8} =$ ☐

(d) $\frac{5}{6} - \frac{3}{8} =$ ☐

(e) $4\frac{1}{4} - \frac{6}{7} - 1 =$ ☐

(f) $q\frac{3}{5} - 5 - 1\frac{1}{2} =$ ☐

2 Solve these.

(a) Deduct $1\frac{1}{2}$ from $3\frac{7}{8}$.

(b) What is the difference between $2\frac{3}{10}$ and $1\frac{1}{6}$?

(c) Subtract $2\frac{3}{5}$ and $1\frac{1}{3}$ from $10\frac{1}{4}$.

3 Complete these.

(a) $7\frac{4}{5} - \square = \frac{3}{5}$

(b) $8 - \square = 3\frac{q}{10}$

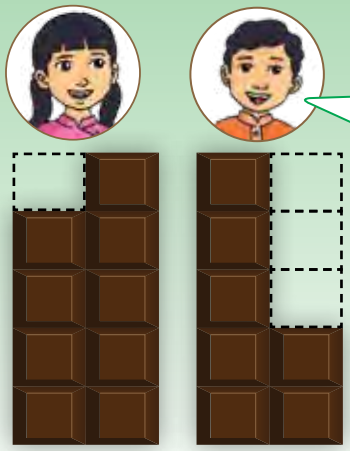
TEACHER'S NOTES

- Download exercises from https://m.k5learning.com/free-math-worksheets/fifth-grade-5/fractions-addition-subtraction to reinforce skills in subtraction of fractions.
- Carry out quizzes using question cards.

2.1.3 (i), (ii)

KPM

ADDITION AND SUBTRACTION OF FRACTIONS



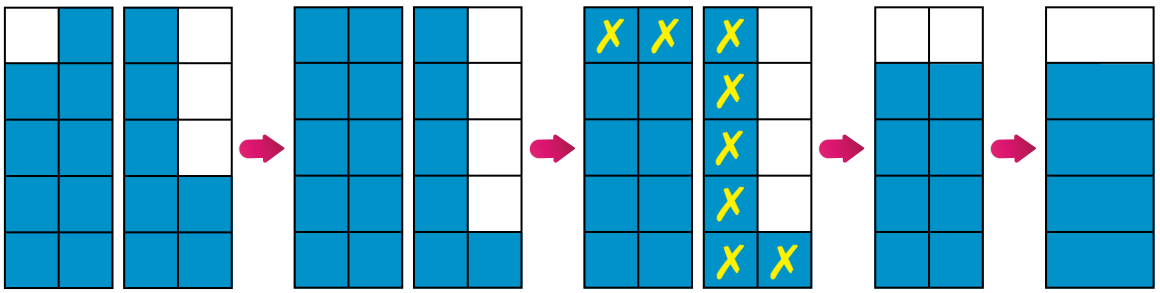
These are parts of our chocolate bars.

$\frac{9}{10}$ $\frac{7}{10}$

$\frac{8}{10}$ were eaten

What is the fraction of the chocolate bars left?

$$\frac{9}{10} + \frac{7}{10} - \frac{8}{10} = \square$$



$$\frac{9}{10} + \frac{7}{10} = \frac{16}{10}$$

$$\frac{16}{10} - \frac{8}{10} = \frac{8 \div 2}{10 \div 2} = \frac{4}{5}$$

First, add $\frac{9}{10}$ and $\frac{7}{10}$.

Then, subtract $\frac{8}{10}$. Write your answer in the simplest form.

$$\frac{9}{10} + \frac{7}{10} - \frac{8}{10} = \frac{4}{5}$$

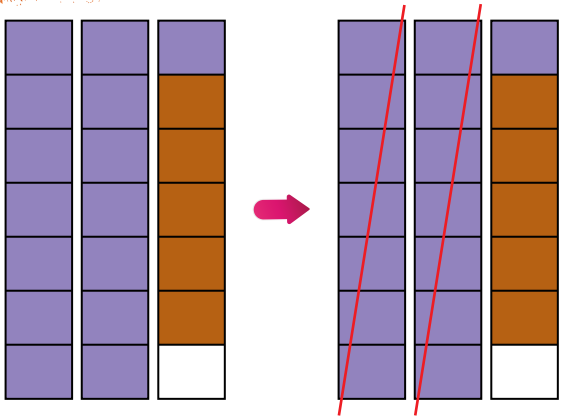
The fraction of the chocolate bars left is $\frac{4}{5}$.

TEACHER'S NOTES

- Emphasise that the operations must be solved from left to right.
- Ask pupils to surf https://m.k5learning.com/free-math-worksheets/fifth-grade-5/word-problems/fractions-mixed-operations to obtain additional questions.

2 $2\frac{1}{7} + \frac{5}{7} - 2 =$ ☐

Method 1



$2\frac{1}{7} + \frac{5}{7} = 2\frac{6}{7}$ $\qquad 2\frac{6}{7} - 2 = \frac{6}{7}$

$2\frac{1}{7} + \frac{5}{7} - 2 = \boxed{\frac{6}{7}}$

Method 2

$$2\frac{1}{7} + \frac{5}{7} - 2 = 2 - 2 + \frac{1}{7} + \frac{5}{7}$$

$$= \frac{6}{7}$$

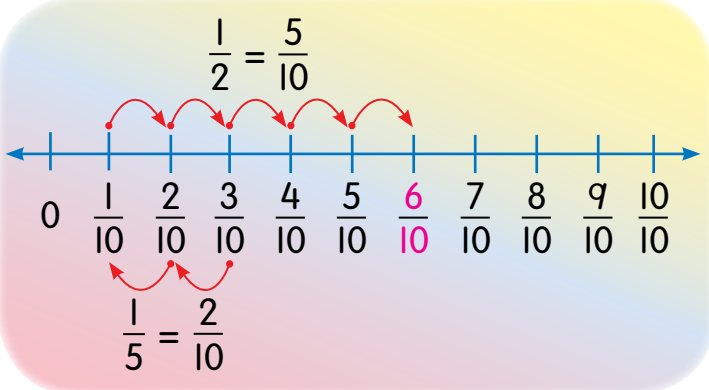
3 $\frac{3}{10} - \frac{1}{5} + \frac{1}{2} =$ ☐

$$\frac{3}{10} - \frac{1}{5} + \frac{1}{2} = \frac{3}{10} - \frac{1 \times 2}{5 \times 2} + \frac{1 \times 5}{2 \times 5}$$

$$= \frac{3}{10} - \frac{2}{10} + \frac{5}{10}$$

$$= \frac{6 \div 2}{10 \div 2}$$

$$= \frac{3}{5}$$



$\frac{3}{10} - \frac{1}{5} + \frac{1}{2} = \boxed{\frac{3}{5}}$

- Emphasise that the denominator must be of the same value before performing the addition or subtraction of fractions.
- Emphasise that the answer must be in the simplest form or mixed number.
- Use semi-concrete materials or diagrams to solve questions.

4 $9 - 2\frac{2}{3} + \frac{1}{4} = \square$

Method 1

$9 - 2\frac{2}{3} + \frac{1}{4} = 8\frac{3}{3} - 2\frac{2}{3} + \frac{1}{4}$

$= 6\frac{1}{3} + \frac{1}{4}$

$= 6\frac{1 \times 4}{3 \times 4} + \frac{1 \times 3}{4 \times 3}$

$= 6\frac{4}{12} + \frac{3}{12}$

$= 6\frac{7}{12}$

3 and 4 times tables

3	4
6	8
9	12
12	16

Method 2

$9 - 2\frac{2}{3} + \frac{1}{4} = \frac{9}{1} - \frac{8}{3} + \frac{1}{4}$

$= \frac{9 \times 12}{1 \times 12} - \frac{8 \times 4}{3 \times 4} + \frac{1 \times 3}{4 \times 3}$

$= \frac{108}{12} - \frac{32}{12} + \frac{3}{12}$

$= \frac{79}{12}$

$= 6\frac{7}{12}$

$$\begin{array}{r} 6 \\ 12\,\overline{)\,79} \\ -72 \\ \hline 7 \end{array}$$

$9 - 2\frac{2}{3} + \frac{1}{4} = \boxed{6\frac{7}{12}}$

$\square - \square + \square = 3\frac{1}{8}$

Based on the fraction cards given, complete the number sentence.

$\frac{3}{8}$ $\frac{3}{4}$ $3\frac{1}{2}$

TEST YOURSELF

Calculate.

a $\frac{3}{7} + \frac{2}{7} - \frac{1}{7} = \square$

b $\frac{5}{9} - \frac{2}{9} + \frac{1}{9} = \square$

c $5\frac{1}{4} - 1\frac{2}{3} + \frac{1}{2} = \square$

d $\frac{1}{6} + 4 - 2\frac{1}{3} = \square$

e $8 - 1\frac{2}{5} + \frac{1}{2} = \square$

f $7\frac{5}{8} + 2 - 5\frac{1}{4} = \square$

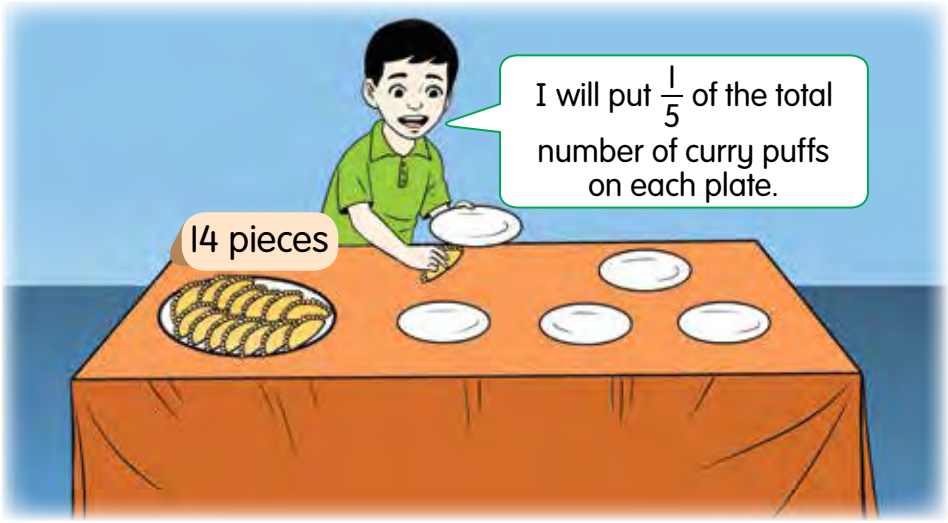
g $10 + 2\frac{3}{7} - 4\frac{9}{10} = \square$

h $6\frac{2}{9} + 1\frac{5}{6} - 4 = \square$

TEACHER'S NOTES

- Provide exercises to find the smallest common denominator to enhance pupils' understanding.
- Encourage pupils to try out the cross multiplication method to find the common denominator.
- Download additional exercises from https://m.k5learning.com/free-math-worksheets/fifth-grade-5/word-problems/fractions-mixed-operations

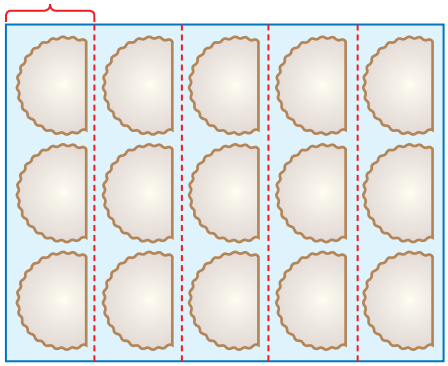
FRACTIONS OF A QUANTITY



How many curry puffs are there on each plate?

Method 1

$\frac{1}{5}$ of 15



$\frac{1}{5}$ of 15 = **3**

There are **3 pieces** of curry puffs on each plate.

Method 2

"**of**" denotes "**multiply**".

$$\frac{1}{5} \text{ of } 15 = \frac{1}{5} \times 15$$
$$= \frac{1 \times 15}{5}$$
$$= \frac{15}{5}$$
$$= 3$$

Dani ate $\frac{1}{3}$ of 15 curry puffs above. How many curry puffs were eaten?

MIND TEASER

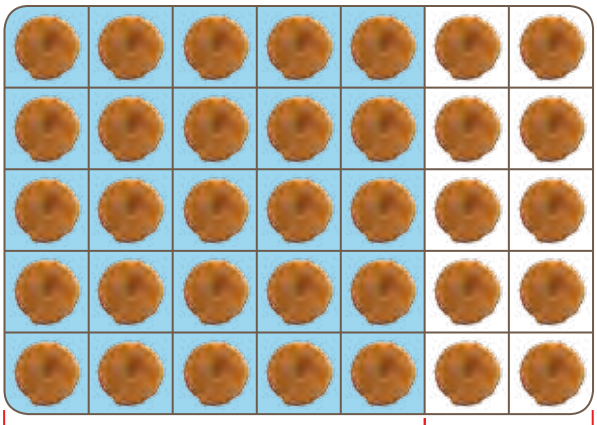
$\frac{3}{4}$ of ▭ marbles are blue. State the possible number of blue marbles.

$\frac{3}{4}$ of ▭ = ▭

TEACHER'S NOTES

- Carry out simulation activities using objects and diagrams to enhance pupils' understanding and reinforce the concept of fractions of a quantity.

2 $\frac{5}{7}$ of 35 *penganan* were served to guests. How many *penganan* were served?



$\frac{5}{7}$ *penganan* were served $\frac{2}{7}$

FACTS AT A GLANCE

Penganan or *penyaram* is a traditional cake of the people in Sarawak and Sabah.

$\frac{5}{7}$ of 35 $= \frac{5}{\cancel{7}_{1}} \times \cancel{35}^{5}$

$= 5 \times 5$

$= 25$

$\frac{5}{7}$ of 35 = **25**

25 pieces of *penganan* were served.

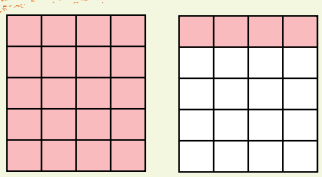
3 $1\frac{1}{5}$ of 20 = ☐

Method 1

$1\frac{1}{5} \times 20 = \frac{6}{\cancel{5}_{1}} \times \cancel{20}^{4}$

$= 24$

Method 2

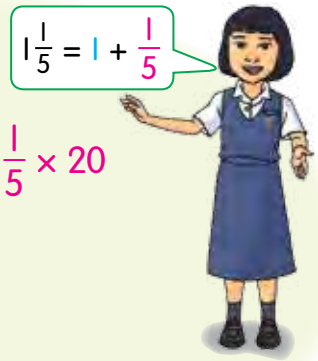


1×20 $\frac{1}{5} \times 20$

$1\frac{1}{5} \times 20 = 1 \times 20 + \frac{1}{\cancel{5}_{1}} \times \cancel{20}^{4}$

$= 20 + 4$

$= 24$



$1\frac{1}{5}$ of 20 = **24**

TEACHER'S NOTES

- Enhance pupils' understanding by using various fraction values and quantity values.
- Carry out online quiz, such as Kahoot. Encourage pupils to interact with friends in their group.

4 $2\frac{2}{3}$ of 90 = ☐

Method 1

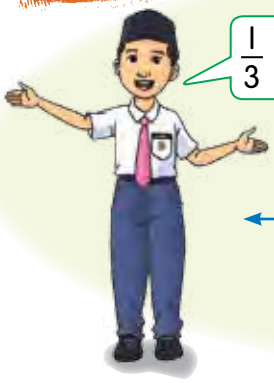
$2\frac{2}{3} \times 90 = \frac{8}{\cancel{3}_{1}} \times \cancel{90}^{30}$

$= 8 \times 30$

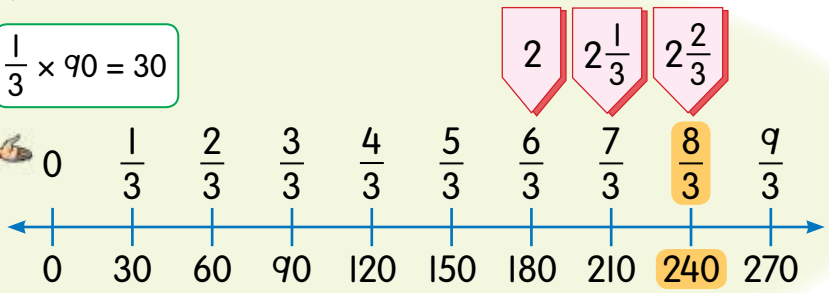
$= 240$

SCAN THIS

Method 2



$\frac{1}{3} \times 90 = 30$



$2\frac{2}{3}$ of 90 = **240**

TEST YOURSELF

1 $\frac{7}{9}$ of 45 medals are gold. Calculate the number of gold medals.

2 $1\frac{4}{5}$ of 100 marchers are boys.
How many boys are there?

3 Calculate.

a $\frac{5}{6}$ of 42 balloons

b $\frac{7}{8}$ of 600 boxes

c $7\frac{1}{4}$ of 280 bottles of juice

d $5\frac{9}{10}$ of 500 people

TEACHER'S NOTES

- Focus on the elimination method carried out by pupils.
- Download extra exercises from https://m.k5learning.com/free-math-worksheets/fifth-grade-5/fractions-multiplication-division/multiply-fractions-whole-number

ADDITION OF DECIMALS

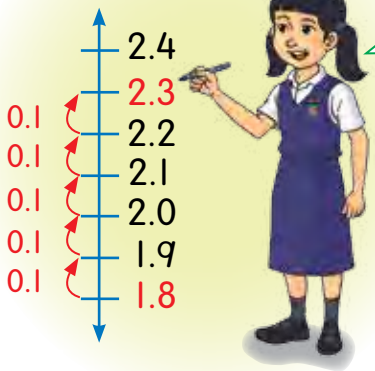
1 What is the total volume of water in the two kettles?

$1.8\ \ell + 0.5\ \ell =$ ☐ ℓ

Method 1

	ones	tenths
	1	1 . 8
+		0 . 5
		2 . 3

Method 2



SCAN THIS

$1.8\ \ell + 0.5\ \ell =$ **2.3** ℓ

The total volume of water in the two kettles is **2.3** ℓ.

2 Add all the masses of fruits.

$1.3\ \text{kg} + 4.207\ \text{kg} + 0.96\ \text{kg} =$ ☐ kg

	ones	tenths	hundredths	thousandths
	1	4 . 2	0	7
		1 . 3	0	0
+		0 . 9	6	0
		6 . 4	6	7

Add 0 as placeholders.

$1.3\ \text{kg} + 4.207\ \text{kg} + 0.96\ \text{kg} =$ **6.467** kg

TEACHER'S NOTES

- Encourage pupils to arrange decimal numbers in the correct place value and ensure the decimal points are aligned correctly.
- Discuss the decimal place value up to three decimal places.
- Remind pupils that addition of decimals is the same as addition of whole numbers.

3 234 + 0.876 + 59.01 = ☐

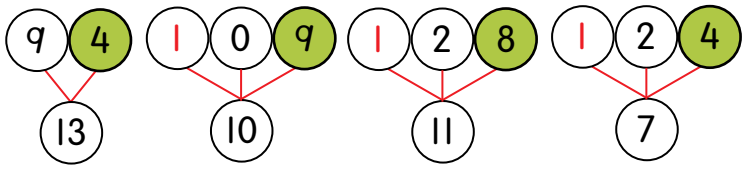
	2	13	4 .	0	0	0
			0 .	8	7	6
+		5	9 .	0	1	0
	2	9	3 .	8	8	6

Discuss these two calculations. Which is correct?

	1	10	12	13	4
		0 .	8	7	6
+	5	9 .	0	1	0
	6	0 .	1	2	0

4 2.209 + ☐ = 7.103

Method 1



	12	12	10	9
+	4 .	8	9	4
	7 .	1	0	3

2.209 + **4.894** = 7.103

Method 2

A simple example.

1 + 2 = 3

2 = 3 − 1

	6	10	9	13
	~~7~~ .	~~1~~	~~0~~	~~3~~
−	2 .	2	0	9
	4 .	8	9	4

Complete the number sentence.

☐ + ☐ = 26.721

TEST YOURSELF

1 Calculate.

(a) 3.0 m + 1.9 m = ☐ m

(b) 10.54 ℓ + 7.009 ℓ = ☐ ℓ

(c) 6.93 + 80.521 = ☐

(d) 36.584 + 6 + 0.732 = ☐

(e) 0.645 + 29.1 + 917.08 = ☐

(f) 100 + 59.2 + 1.603 = ☐

2 Complete the number sentences.

(a) 0.98 + ☐ = 6.735

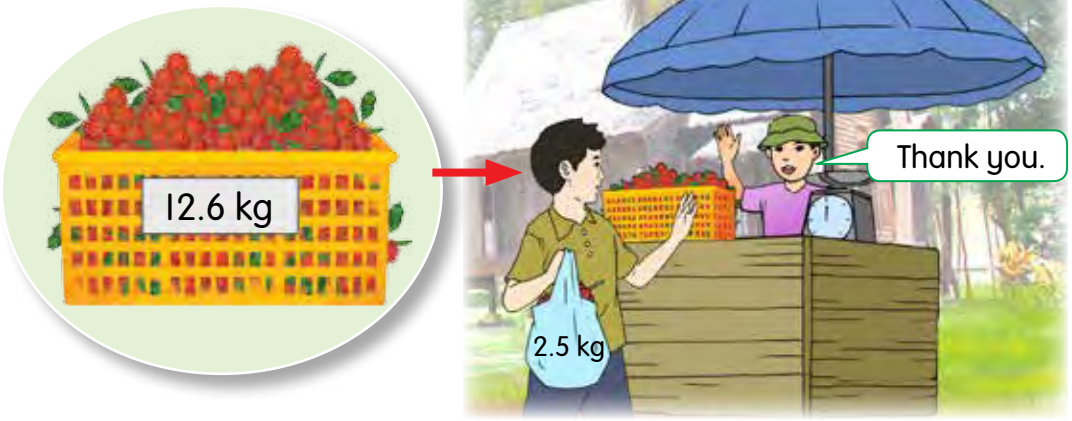
(b) ☐ + 37.012 = 40.1

TEACHER'S NOTES

- Reinforce pupils' understanding by providing more exercises on addition of decimals up to three decimal places.
- Surf https://www.mathsisfun.com/adding-decimals.html for enrichment exercises.

SUBTRACTION OF DECIMALS

1



What is the mass of the unsold rambutans?

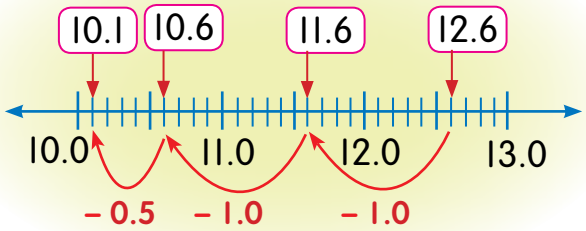
12.6 kg – 2.5 kg = ☐ kg

Method 1

	1	2 .	6
–		2 .	5
	1	0 .	1

TIPS
The decimal points must be aligned.

Method 2



12.6 kg – 2.5 kg = **10.1** kg

The mass of the unsold rambutans is **10.1** kg.

2 Calculate Kaswini's height.

1.4 m – 0.13 m = ☐ m

	1	3 . 4	10 0
–	0	. 1	3
	1	. 2	7

place a 0

1.4 m – 0.13 m = **1.27** m

Kaswini's height is **1.27** m.

7.918 – 3 = ☐

	7	. 9 1	8
–			3
	7	. 9 1	5

Discuss the mistake.

TEACHER'S NOTES

- Number 0 needs to be written to equate the decimal places.
- In pairs, ask pupils to measure their partner's height and find the difference of their heights (in metre).
- Remind pupils that subtraction of decimals is the same as subtraction of whole numbers.

3 5 – 0.58 – 4.079 = ☐

```
    9          11
  4 1010     3 110
  5.00       4.420
– 0.58     – 4.079
  4.42       0.341
```

5 – 0.58 – 4.079 = **0.341**

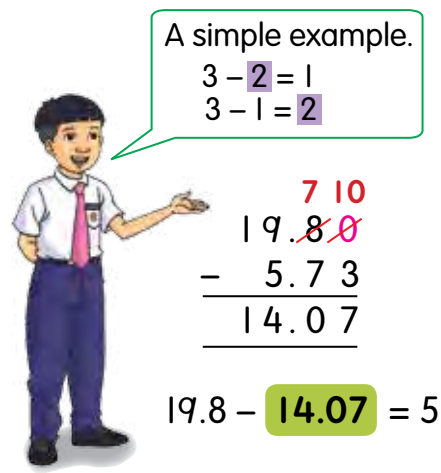
SCAN THIS

4 34.8 – 12.45 – 0.619 = ☐

```
      710
  34.80
– 12.45
  1 13410
  22.350
–  0.619
  21.731
```

34.8 – 12.45 – 0.619 = **21.731**

5 19.8 – ☐ = 5.73


A simple example.
3 – 2 = 1
3 – 1 = 2

```
    7 10
  19.80
–  5.73
  14.07
```

19.8 – **14.07** = 5.73

TEST YOURSELF

1 Calculate.

a 2.3 g – 0.74 g = ☐ g

b 10.58 seconds – 0.3 seconds = ☐ seconds

c 3.48 – 2.069 = ☐

d 496.984 – 70.56 = ☐

e 539.217 – 486.05 = ☐

f 609.632 – 256.75 – 33.078 = ☐

g 207.48 – 93 – 4.097 = ☐

h 54.04 – 8.62 – 0.67 = ☐

2 Complete the number sentences.

a 8.7 – ☐ = 2.64

b 59.367 – ☐ = 28.074

TEACHER'S NOTES

- Discuss with pupils the uses of decimal numbers in daily situations.
- Surf https://www.mathsisfun.com/subtracting-decimals.html for enrichment exercises.

MULTIPLICATION OF DECIMALS

1 Calculate the total volume of water in 3 similar bottles.

1.7 ℓ

$3 \times 1.7\ \ell =$ ☐ ℓ

Multiply the same way as whole numbers. Place decimal point at one decimal place.

	2	1	.	7	
×				3	
		5	.	1	

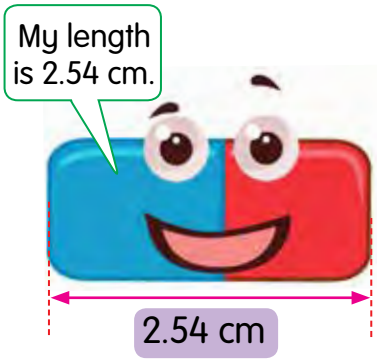
1 decimal place

1 decimal place

$3 \times 1.7\ \ell =$ **5.1** ℓ

The total volume of water in 3 similar bottles is **5.1** ℓ.

2



What is the total length, in cm, of 4 similar rubbers?

4×2.54 cm = ☐ cm

		2	1		
		2	. 5	4	
×				4	
	1	0	. 1	6	

2 decimal places

2 decimal places

4×2.54 cm = **10.16** cm

The total length of 4 similar rubbers is **10.16** cm.

3 $73.082 \times 6 =$ ☐

7	3	.	0	8	2	×
4 2	1 8		0 0	4 8	1 2	6
4	3	.	8	9	2	

3 decimal places

3 decimal places

$73.082 \times 6 =$ **438.492**

TEACHER'S NOTES

- Guide pupils to estimate the answers by rounding off decimals to whole numbers. For example, $3 \times 1.7\ \ell$ can be rounded off to $3 \times 2\ \ell$.
- If the pupils are using the lattice method, guide them to place the decimal point correctly.

4

FACTS AT A GLANCE

The length of hair growth is about 1.25 cm a month.

Source: https://en.wikipedia.org/wiki/Human_hair_growth

Calculate the length of hair growth in the 10th month.

10×1.25 cm = ____ cm

Method 1

$$\begin{array}{r} 1.25 \\ \times \quad 10 \\ \hline 000 \\ +\ 1250 \\ \hline 12.50 \end{array}$$

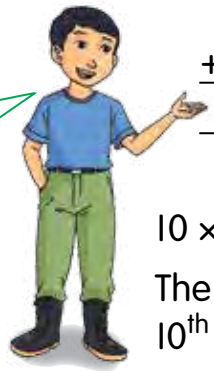
Method 2

$10 \times 1.25 = 12.5$

TIPS

To multiply by 10, shift the decimal point one place to the right because the value of the product increases.

When writing the answer, ignore the number 0 after number 5.



10×1.25 cm = **12.5** cm

The length of hair growth in the 10th month is **12.5** cm.

5 100×7.342 = ____

$7.342 \times 100 = 734.2$

100×7.342 = **734.2**

6 $10 \times 0.956 = 9.56$

$100 \times 0.956 = 95.6$

$1\,000 \times 0.956$ = ____

Explain this multiplication pattern. Complete it.

TEST YOURSELF

1 Multiply.

a 8×2.3 g = ____ g

b 4×0.6 cm = ____ cm

c 7×5.43 m = ____ m

d 3×40.52 = ____

e 5×0.231 = ____

f 2×65.321 = ____

g 3.06×9 = ____

h 317.26×4 = ____

i 78.252×5 = ____

2 Quick multiplication.

a 10×8.34 = ____

b 10×54.319 = ____

c 100×0.075 = ____

d 2.087×100 = ____

e $92.4 \times 1\,000$ = ____

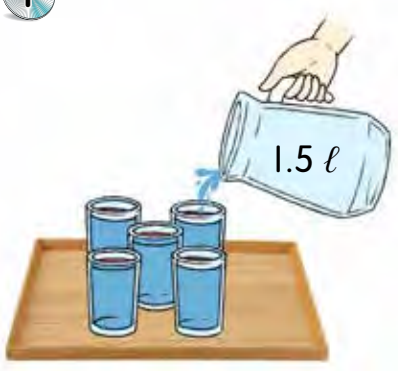
f $8.006 \times 1\,000$ = ____

TEACHER'S NOTES

- Search for other facts, such as the growth of fingernails in a month and the movement of the Moon around Earth in a month.
- Explain to pupils when to ignore the zero after the decimal point. For example, 12.50 (ignore the zero) and 12.05 (the zero cannot be eliminated).

DIVISION OF DECIMALS

1 What is the volume of the juice in each glass?



1.5 ℓ ÷ 5 = ☐ ℓ

$$\begin{array}{r} 0.3 \\ 5\overline{)\,1.5} \\ -0 \\ \hline 1\ 5 \\ -1\ 5 \\ \hline 0 \end{array}$$

1.5 ℓ ÷ 5 = **0.3** ℓ

Each glass contains **0.3** ℓ of juice.

2 2 kg of cake was cut into 8 equal parts.

What is the mass of one part of the cake?

2 kg ÷ 8 = ☐ kg

$$\begin{array}{r} 0.25 \\ 8\overline{)\,2.00} \\ -0 \\ \hline 2\ 0 \\ -1\ 6 \\ \hline 4\ 0 \\ -4\ 0 \\ \hline 0 \end{array}$$

2 kg ÷ 8 = **0.25** kg

The mass of one part of the cake is **0.25** kg.

3 63.72 ÷ 9 = ☐

$$\begin{array}{r} 07.08 \\ 9\overline{)\,63.72} \\ -0 \\ \hline 6\ 3 \\ -6\ 3 \\ \hline 0\ 7 \\ -\ \ 0 \\ \hline 7\ 2 \\ -\ 7\ 2 \\ \hline 0 \end{array}$$

SCAN THIS

63.72 ÷ 9 = **7.08**

TEACHER'S NOTES

- Emphasise that in division of decimals, the division must be completed until there is no remainder.
- Remind pupils that division of decimals is the same as division of whole numbers.
- Surf https://www.mathsisfun.com/dividing-decimals.html to enhance pupils' understanding on division of decimals.

4 $4.32 \div 10 =$ ☐

Method 1

$$\begin{array}{r} 0.432 \\ 10\overline{)\,4.320} \\ -0 \\ \hline 43 \\ -40 \\ \hline 32 \\ -30 \\ \hline 20 \\ -20 \\ \hline 0 \end{array}$$

$4.32 \div 10 =$ **0.432**

Method 2

$4.32 \div 10 = 0.432$

To divide by 10, shift the decimal point one place to the left because the value of the quotient decreases.

5 $657.8 \div 100 =$ ☐

$657.8 \div 100 = 6.578$

Shift the decimal point two places to the left.

$657.8 \div 100 =$ **6.578**

6 $2\,749 \div 1\,000 =$ ☐

$2\,749 \div 10 = 274.9$

$2\,749 \div 100 = 27.49$

$2\,749 \div 1\,000 =$ ☐

Look at the division pattern above. Complete it.

TEST YOURSELF

1 Divide.

a $5.4 \text{ m} \div 6 =$ ☐ m

b $3 \text{ kg} \div 5 =$ ☐ kg

c $60.42\ \ell \div 4 =$ ☐ ℓ

d $87.5 \div 7 =$ ☐

e $0.036 \div 9 =$ ☐

f $20.028 \div 3 =$ ☐

2 Quick division.

a $0.7 \div 10 =$ ☐

b $8.4 \div 10 =$ ☐

c $653.2 \div 100 =$ ☐

d $45.3 \div 100 =$ ☐

e $9 \div 1\,000 =$ ☐

f $873 \div 1\,000 =$ ☐

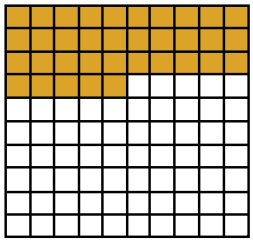
TEACHER'S NOTES

- Guide pupils to place the decimal point at the correct decimal places when dividing by 10, 100 and 1 000.
- Surf https://www.mathsisfun.com/dividing-decimals.html for enrichment activities.

CONVERT FRACTIONS AND PERCENTAGES

1

State the percentage of the chocolate doughnuts.



35 out of 100 is 35 hundredths.

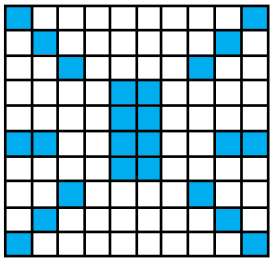
35 hundredths is written as $\frac{35}{100}$.

$\frac{35}{100}$ in percentage is 35%.

$\frac{35}{100} = \mathbf{35\%}$

The percentage of the chocolate doughnuts is **35%**.

2



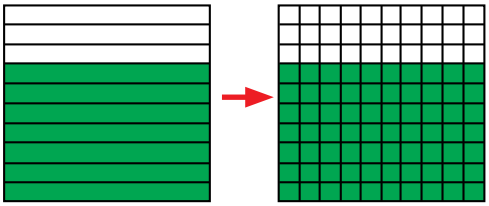
What is the percentage of the blue squares?

24 out of 100 squares are blue. $\frac{24}{100} =$ ▢

What is the percentage of the white squares?

3 Write $\frac{7}{10}$ in percentage.

Method 1



$\frac{7}{10} = \frac{7 \times 10}{10 \times 10}$

$= \frac{70}{100}$

$= 70\%$

$\frac{7}{10} = \mathbf{70\%}$

Method 2

$\frac{7}{10} = \frac{7}{10} \times 100\%$

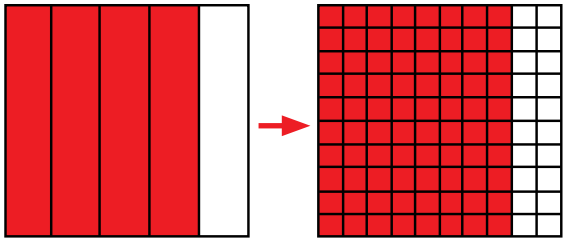
$= 70\%$

TEACHER'S NOTES

- Use squared paper such as mathematics exercise book, grid paper, and graph paper for the activity of converting fractions to percentages.
- Vary shading activities using MS Excel.

4 Convert $\frac{4}{5}$ to percentage.

Method 1



$\frac{4}{5}$

$\frac{4 \times 20}{5 \times 20} = \frac{80}{100}$

$= 80\%$

$\frac{4}{5} = \mathbf{80\%}$

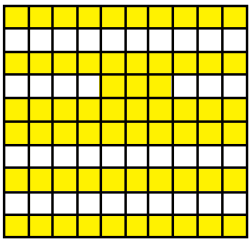
Method 2

$\frac{4}{5} = \frac{4}{\cancel{5}_{1}} \times \frac{\cancel{100}^{20}\%}{}$

$= 80\%$

Do $\frac{1}{5}$ and $\frac{2}{10}$ represent an equal value of percentage? Show it.

5 State 63% in fraction of hundredths.



$63\% = \mathbf{\frac{63}{100}}$

6 Write 90% in the simplest fraction.

$90\% = \square$

$90\% = \frac{\cancel{90}}{\cancel{100}}$

$= \frac{\square}{\square}$

7 Write 40% in the simplest fraction.

$40\% = \frac{40 \div 20}{100 \div 20}$

$= \frac{2}{5}$

$40\% = \mathbf{\frac{2}{5}}$

Complete these.

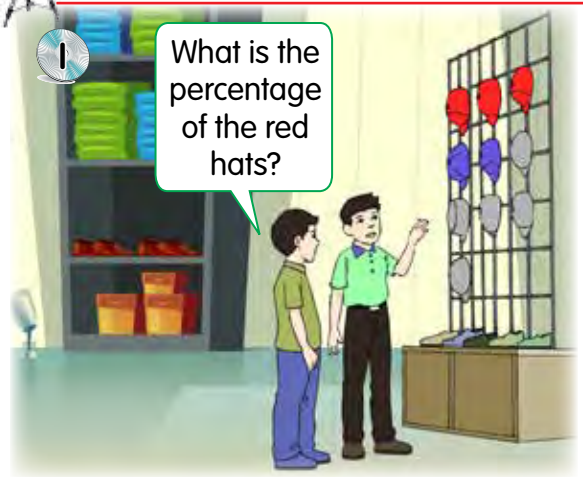
Fraction	$\frac{27}{100}$			$\frac{3}{4}$		$\frac{9}{20}$
Percentage		19%	60%		85%	

TEACHER'S NOTES

- Surf https://www.mathsisfun.com/converting-fractions-percents.html to boost pupils' knowledge.
- Work in pairs. Pupil A writes a fraction and pupil B converts it to percentage. Then, change roles.

PERCENTAGES OF OBJECTS

1 What is the percentage of the red hats?



3 out of 10 hats are red.

The fraction of red hats is $\frac{3}{10}$.

$$\text{Percentage of red hats} = \frac{3 \times 10}{10 \times 10}$$

$$= \frac{30}{100}$$

$$= 30\%$$

The percentage of the red hats is **30%**.

50% of hats are grey. Discuss.

2 Number of books read in a month.

Name	Number of books
Vicknesh	14
Daren	11
Aimi	12
Sharon	13
Total	**50**

State the percentage of the books read by Aimi.

Aimi read 12 out of 50 books.

$$\text{Percentage} = \frac{12}{50}$$

$$= \frac{12 \times 2}{50 \times 2}$$

$$= \frac{24}{100}$$

$$= 24\%$$

The percentage of the books read by Aimi is **24%**.

35 out of 50 books are storybooks. Calculate the percentage.

3 What is the percentage of 8 vans out of 40 vehicles?

$$\frac{\cancel{8}^{1}}{\cancel{40}_{5}} \times 100\% = \frac{1}{\cancel{5}_{1}} \times \cancel{100}^{20}\%$$

$$= 20\%$$

The percentage of 8 vans out of 40 vehicles is **20%**.

TEST YOURSELF

State the percentage of the following objects.

a 8 red cubes out of 20 cubes.

b 17 pieces of 50 sen coins out of 25 pieces of coins.

TEACHER'S NOTES

- Ask pupils to collect data from daily situations such as number of teachers wearing spectacles and number of left-handed pupils. Then, find the percentages.

SOLVE THE PROBLEMS

1 Santesh, Swee Lan, and Rokiah collected recycled materials. The table shows the mass of their collection for three weeks. What is the total mass of the collected materials?

Week	Mass (kg)
Week 1	$2\frac{1}{2}$
Week 2	4
Week 3	$3\frac{1}{5}$

Understand the problem

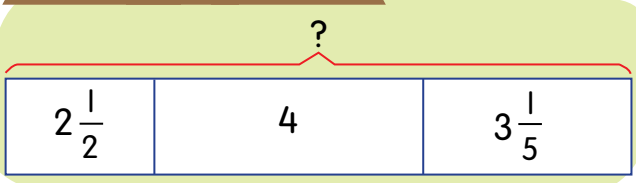
Week 1 $2\frac{1}{2}$ kg

Week 2 4 kg

Week 3 $3\frac{1}{5}$ kg

Calculate the total mass.

Plan the strategy



Solve

$2\frac{1}{2}$ kg + 4 kg + $3\frac{1}{5}$ kg = ☐ kg

$$2\frac{1}{2} + 4 + 3\frac{1}{5}$$
$$= 2 + 4 + 3 + \frac{1}{2} + \frac{1}{5}$$
$$= 9 + \frac{1 \times 5}{2 \times 5} + \frac{1 \times 2}{5 \times 2}$$
$$= 9 + \frac{5}{10} + \frac{2}{10}$$
$$= 9\frac{7}{10}$$

Check

$$9\frac{7}{10} - 3\frac{1}{5} - 4$$
$$= 9\frac{7}{10} - 3\frac{1 \times 2}{5 \times 2} - 4$$
$$= 9\frac{7}{10} - 3\frac{2}{10} - 4$$
$$= 2\frac{5 \div 5}{10 \div 5}$$
$$= 2\frac{1}{2}$$

$2\frac{1}{2}$ kg + 4 kg + $3\frac{1}{5}$ kg = $9\frac{7}{10}$ kg

The total mass of the collected materials is $9\frac{7}{10}$ kg.

TEACHER'S NOTES

- Guide pupils to determine the operation to solve the problems by identifying important information and keywords.
- Vary the questions such as "What is the difference between the most and the least mass?".

2 The total number of members of the Science Club is 140. $\frac{3}{7}$ of the members are Year 4 pupils. Another $\frac{1}{2}$ of the members are Year 5 pupils. Calculate the difference between the number of Year 4 and Year 5 pupils.

Understand the problem

Member	Number/fraction
Total	140
Year 4 pupils	$\frac{3}{7}$ of 140
Year 5 pupils	$\frac{1}{2}$ of 140

Find the difference between the number of Year 4 and Year 5 pupils.

Present the information in a table.

Plan the strategy

$\frac{3}{7} \times 140 =$ ☐

$\frac{1}{2} \times 140 =$ ☐

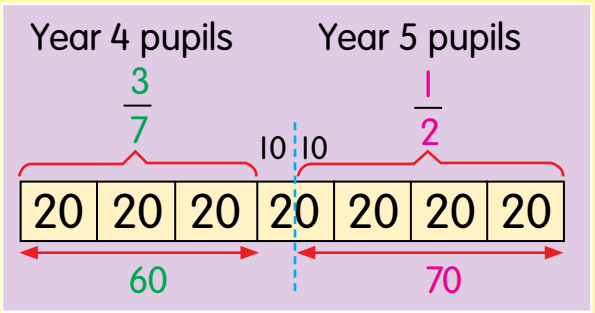
Solve

Year 4 pupils: $\frac{3}{7} \times \overset{20}{\cancel{140}} = 60$

Year 5 pupils: $\frac{1}{2} \times \overset{70}{\cancel{140}} = 70$

difference: $70 - 60 = 10$

Check



The difference in number between Year 4 and Year 5 pupils: $70 - 60 = 10$

The difference between the number of Year 4 and Year 5 pupils is **10**.

How many members are not Year 4 and Year 5 pupils?

TEACHER'S NOTES

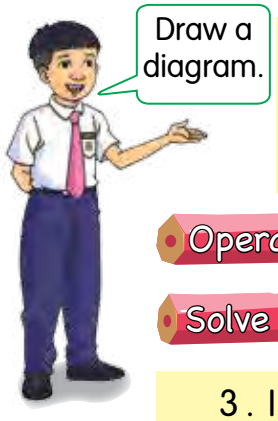
- In groups, ask pupils to solve the situations above if the total number of members is 210.

3 Three balloon cars were built from waste materials. The table shows the distance covered by each car. What is the difference in distance covered by Pythagoras car and Einstein car?

Name of car	Distance covered
Einstein	2.15 m
Pythagoras	1.15 m more than Newton
Newton	3.1 m

Given Distance covered:
Newton 3.1 m
Pythagoras 1.15 m more than Newton car
Einstein 2.15 m

Find Difference in distance covered by Pythagoras car and Einstein car.



Newton 3.1 m
Pythagoras 3.1 m 1.15 m
Einstein 2.15 m difference

Operation Add and subtract

Solve 3.1 m + 1.15 m – 2.15 m = ☐ m

$$\begin{array}{r} 3.10 \\ +\ 1.15 \\ \hline 4.25 \end{array} \qquad \begin{array}{r} 4.25 \\ -\ 2.15 \\ \hline 2.10 \end{array}$$

Check

$$\begin{array}{r} 2.10 \\ +\ 2.15 \\ \hline 4.25 \end{array} \qquad \begin{array}{r} 4.25 \\ -\ 1.15 \\ \hline 3.10 \end{array}$$

3.1 m + 1.15 m – 2.15 m = **2.1** m

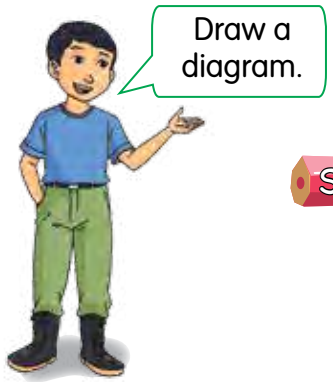
The difference in distance covered by Pythagoras car and Einstein car is **2.1** m.

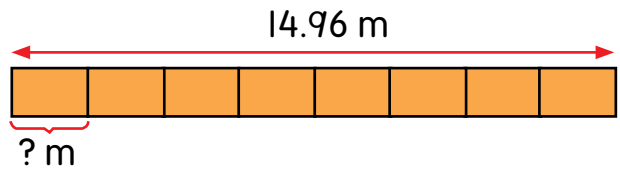
Calculate the difference in distance covered by Newton car and Einstein car.

TEACHER'S NOTES

- Ask pupils to collect data on sports events such as the long jump in 2019 SEA Games. Then, find the difference in distance between the farthest jump and the shortest jump. Solve problems based on the data.

4 In conjuction with Sports Day, Green House needs to prepare 8 pieces of flags of equal size. The total length of cloth needed is 14.96 m. What is the length of cloth for each flag?





Solve 14.96 m ÷ 8 = ☐ m

$$\begin{array}{r} 1.87 \\ 8\overline{)14.96} \\ -\ 8 \\ \hline 69 \\ -64 \\ \hline 56 \\ -56 \\ \hline 0 \end{array}$$

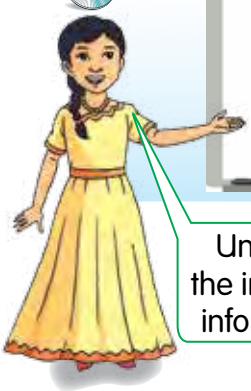
Check

$$\begin{array}{r} {\scriptstyle 6\ 5} \\ 1.87 \\ \times\ \ 8 \\ \hline 14.96 \\ \hline \end{array}$$

14.96 m ÷ 8 = **1.87** m

The length of cloth for each flag is **1.87** m.

5 The Mathematics Club received a fund collection of RM280. RM70 was used to buy things for the mathematics garden. Calculate the percentage of money spent.



Solve

$$\frac{70}{280} \times 100\% = \square$$

$$\frac{\overset{1}{\cancel{70}}}{\underset{\underset{1}{\cancel{4}}}{\cancel{280}}} \times \overset{25}{\cancel{100}}\% = 25\%$$

$$\frac{70}{280} \times 100\% = \mathbf{25\%}$$

Check

$$25\% \times 280 = \frac{25}{10\cancel{0}} \times 28\cancel{0}$$

$$= \frac{70\cancel{0}}{1\cancel{0}}$$

$$= 70$$

The percentage of money spent was **25%**.

- Train pupils to determine the percentages of their test marks or quizzes.

TEACHER'S NOTES

2.4.1

TEST YOURSELF

1 Complete the table. Which team won?

Time Recorded for Treasure Hunt Competition

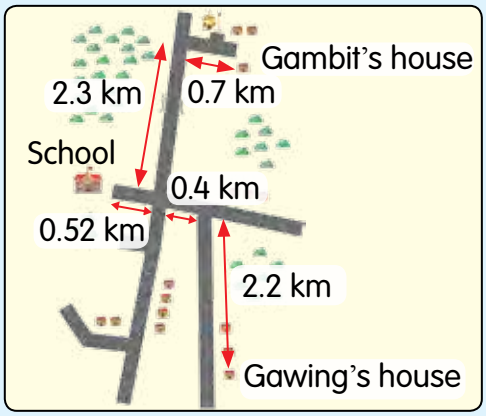
Team	Challenge A	Challenge B	Total time
Ibnu Sina	$1\frac{1}{6}$ hours	$2\frac{1}{3}$ hours	
Ibnu Khaldun	$1\frac{2}{3}$ hours	$2\frac{4}{5}$ hours	

2 Pauline gets RM6 for her pocket money from her father every day. She spends $\frac{2}{3}$ of the money. The balance is saved in a money box.

(a) How much money does she spend every day?

(b) Does her savings exceed RM8 after 5 days?

3 Gawing goes to school every day. Gambit was absent on Thursday.



(a) Total up the distance they both travelled in a day.

(b) Calculate the difference in distance travelled by Gawing and Gambit for that week.

4 Read the sentences below.

Kelvin gets 48 out of 60 marks in the Environmental Quiz.

Dina gets 24 out of 32 marks in the Road Safety Quiz.

Prem Singh gets 81 out of 90 marks in the Flora and Fauna Quiz.

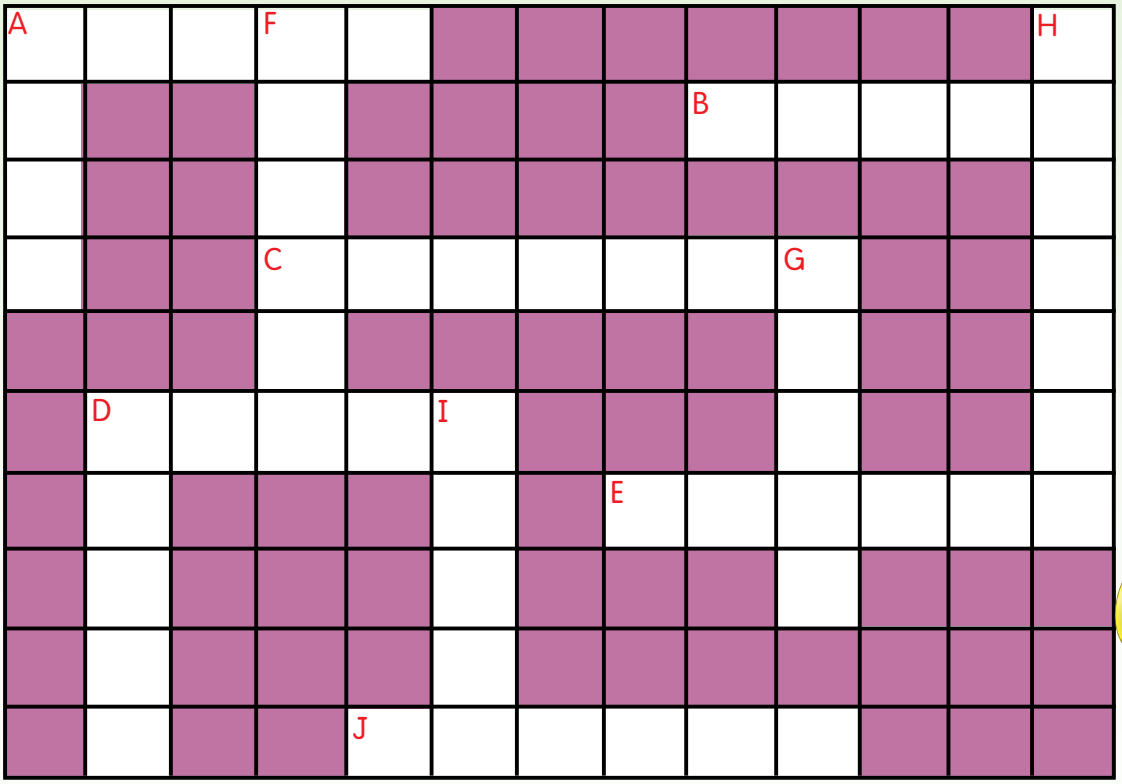
Who has the highest percentage of marks?
Show the calculations.

TEACHER'S NOTES

- Provide various levels of problem solving questions regarding fractions, decimals, and percentages.
- Ask pupils to solve the problems in groups to enhance their understanding. Present the answers.

MIND RIDDLE

Complete the following cross-number puzzle.



ACROSS

A $2.48 + 36.7 =$ ☐

B $2\,143 \div 1\,000 =$ ☐

C $463.4 + 176.803 =$ ☐

D $100 \times 5.074 =$ ☐

E $9.03 + 12.4 + 63.009 =$ ☐

J ☐ $+ 0.76 = 18.254$

DOWN

A $31.8 \div 10 =$ ☐

D $80 - 25.69 =$ ☐

F $26.7 - 8.093 =$ ☐

G $10 \times 31.62 =$ ☐

H $94.32 + 103.4 + 32.299 =$ ☐

I $94.32 -$ ☐ $= 53.05$

TEACHER'S NOTES

- In pairs, ask pupils to complete the cross-number puzzle.
- Instil cooperation and meticulousness when performing calculation.

MIND CHALLENGE

1 Convert improper fractions to mixed numbers.

a $\frac{12}{5}$ b $\frac{14}{9}$ c $\frac{29}{7}$ d $\frac{15}{4}$ e $\frac{20}{3}$ f $\frac{35}{8}$

2 Convert mixed numbers to improper fractions.

a $1\frac{2}{7}$ b $3\frac{4}{9}$ c $5\frac{3}{8}$ d $6\frac{3}{10}$ e $10\frac{1}{3}$ f $55\frac{1}{2}$

3 Calculate.

a $\frac{4}{9} + \frac{1}{9} =$ ☐ b $\frac{3}{4} + \frac{5}{6} =$ ☐

c $1\frac{1}{3} + \frac{1}{4} =$ ☐ d $4 + \frac{3}{5} + 1\frac{1}{2} =$ ☐

e $3\frac{4}{7} + 1\frac{2}{3} + \frac{5}{7} =$ ☐ f $2\frac{1}{6} +$ ☐ $= 4\frac{5}{6}$

4 Solve these.

a $\frac{7}{8} - \frac{3}{8} =$ ☐ b $4 - \frac{5}{7} =$ ☐

c $3\frac{4}{5} - 2\frac{2}{3} =$ ☐ d $5\frac{2}{9} - 3 - \frac{1}{3} =$ ☐

e $6\frac{5}{6} - 3\frac{1}{2} - 1\frac{1}{3} =$ ☐ f $3\frac{7}{9} -$ ☐ $= \frac{4}{9}$

5 What is the value of ☐ ?

a $2\frac{1}{5} +$ ☐ $= 3\frac{3}{5}$ b ☐ $- 4\frac{1}{8} = 2\frac{3}{4}$

6 Calculate.

a $8\frac{2}{3} + \frac{1}{3} - 5 =$ ☐ b $4\frac{3}{7} - \frac{6}{7} + 1 =$ ☐

c $3 - 2\frac{1}{10} + 1\frac{3}{5} =$ ☐ d $6\frac{1}{6} - 2 + \frac{1}{2} =$ ☐

7 Calculate.

a $\frac{7}{10}$ of 50 m b $\frac{8}{9}$ of 81 kg c $1\frac{3}{4}$ of 96 ℓ

TEACHER'S NOTES

- Ask pupils to solve the questions using various calculations.
- Ask pupils to check their answers in pairs.

8 Complete these.

a 2.5 + 6.09 = ____ b 0.8 + 24.93 + 167.253 = ____

c 50 + 6.008 + 90.32 = ____ d 42.6 + ____ = 71.4

9 Given K = 4.2, L = 10.83 and M = 6.278. Find:

a L – K b M – K c L – M – K d M – ____ = K

10 Find the product.

a 8 × 1.07 = ____ b 7 × 99.6 = ____ c 9 × 14.362 = ____

d 10 × 63.08 = ____ e 100 × 1.942 = ____ f 1 000 × 52.73 = ____

11 Solve these.

a 41.6 ÷ 8 = ____ b 930.78 ÷ 9 = ____ c 15.28 ÷ 10 = ____

d 342 ÷ 100 = ____ e 603 ÷ 1 000 = ____

12 Convert fractions to percentages or vice versa.

a $\frac{4}{5}$ b $\frac{19}{20}$ c $\frac{18}{25}$ d 7% e 68% f 93%

13 Determine the following percentages.

a 53 out of 100 b 15 out of 50 c 24 out of 80

14 Solve the problems.

a Hamimah used 5 ℓ of mineral water, $\frac{3}{5}\ell$ of syrup, and $\frac{1}{10}\ell$ of roselle extract to make roselle juice. Does the total volume exceed 6ℓ?

b Fong's father has a rope of 10 m long. He used 2.85 m to tie books and 3.12 m to tie used goods.

i What is the length of rope left?

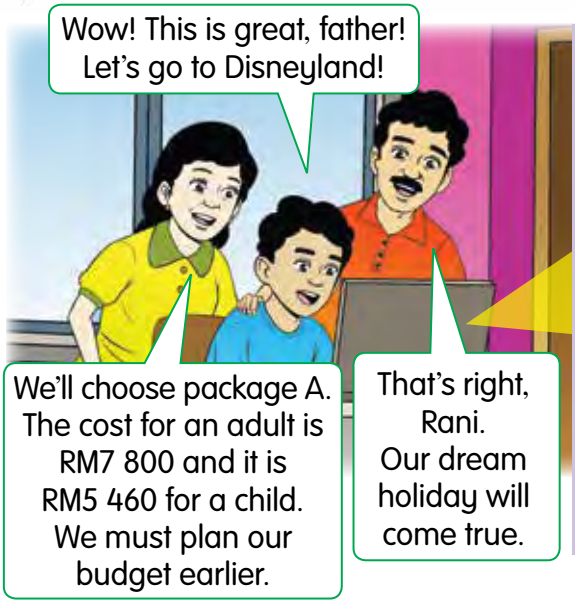
ii Calculate the difference between the length of rope used to tie the books and the used goods.

TEACHER'S NOTES

- Ask pupils to solve problems in small groups.
- Ask pupils to present their calculations.

MONEY

ADDITION OF MONEY



1 What is the total cost of package A for two adults and a child?

RM7 800 + RM7 800 + RM5 460 = ____

$$\begin{array}{rr} & {\scriptstyle 2} \\ \text{RM} & 7\ 8\ 0\ 0 \\ \text{RM} & 7\ 8\ 0\ 0 \\ +\ \text{RM} & 5\ 4\ 6\ 0 \\ \hline \text{RM} & 21\ 0\ 6\ 0 \end{array}$$

RM7 800 + RM7 800 + RM5 460 = **RM21 060**

The total cost of package A for two adults and a child is **RM21 060**.

Their neighbours, Encik Isa and Puan Azila went for a holiday in Kyushu. How much did they pay?

TEACHER'S NOTES

- Ask pupils to share their holiday experiences in the country or abroad.
- For the activities of addition of values of money, ask pupils to gather information on the cost of tour packages from brochures or the Internet.
- Emphasise that the RM symbol must be written in their answers.

2 The table shows the amount of money in the accounts of Watson's parents.

Account	Watson's Mother	Watson's Father
Salary	RM4 857	RM6 932.86
Savings	RM23 156.75	RM48 900
Trust Fund	–	RM10 973.42

a How much money does Watson's mother have?

RM23 156.75 + RM4 857 = ☐

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

Write 0 to complete the sen value.

RM23 156.75 + RM4 857 = **RM28 013.75**

Watson's mother has **RM28 013.75** altogether.

b Total up the money of Watson's father.

RM6 932.86 + RM48 900 + RM10 973.42 = ☐

Estimate the answer to the nearest thousand ringgit.

RM6 932.86 → RM7 000
RM48 900 → RM49 000
RM10 973.42 → RM11 000

```
      1
  RM   7 0 0 0
  RM 4 9 0 0 0
+ RM 1 1 0 0 0
  ---------------
  RM 6 7 0 0 0
```

Calculate the actual answer.

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

RM66 806.28 is nearer to RM67 000.
The answer is reasonable.

RM6 932.86 + RM48 900 + RM10 973.42 = **RM66 806.28**

Watson's father has **RM66 806.28** altogether.

TEACHER'S NOTES
- Stress on how to make estimations.
- Instil moral values on savings, being thrifty, and managing money wisely.

3 RM23 486.50 + ☐ = RM67 392.80

$4 + \boxed{5} = 9$

$\boxed{5} = 9 - 4$

6 13 8 12

RM 6 ~~7~~ ~~3~~ ~~9~~ ~~2~~ . 8 0

− RM 2 3 4 8 6 . 5 0

RM 4 3 9 0 6 . 3 0

RM23 486.50 + **RM43 906.30** = RM67 392.80

MIND TEASER

A trip to which three countries will cost a total of RM16 870?

TEST YOURSELF

1 Add.

a RM2 017 + RM14 842 = ☐

b RM37 229 + RM42 143.35 = ☐

c RM4 861.60 + RM52 364.50 + RM8 625 = ☐

d ☐ = RM9 699 + RM37 540.05 + RM15 000.85

2 Solve these.

a RM36 405.20 + ☐ = RM75 918.90

b ☐ + RM636.50 + RM36 104.35 = RM98 700

3 a Total up RM5 384, RM37 109.60 and RM864.70.

b How much more needs to be added to RM27 236.20 and RM4 083.75 to become RM49 870?

TEACHER'S NOTES

- Discuss rounding off ringgit and sen values to the nearest ringgit from transactions in daily situations such as from bills and receipts.
- Use play money, number lines, and mental calculations to carry out addition of values of money.
- Remind pupils that adding values of money involving unknowns is the same as adding numbers involving unknowns.

SUBTRACTION OF MONEY

	Perodua Alza 1.5 SE Auto RM56 600
	Perodua Aruz 1.5 SE Auto RM77 200
	Perodua Bezza 1.3 RM41 890

1 How much less is the price of Perodua Alza compared to Perodua Aruz?

RM77 200 – RM56 600 = ☐

$$\begin{array}{r} \overset{6}{\cancel{7}}\ \overset{12}{\cancel{2}}00 \\ -\ 56\,600 \\ \hline 20\,600 \end{array}$$

RM77 200 – RM56 600 = **RM20 600**

The price of Perodua Alza is **RM20 600** less than the price of Perodua Aruz.

What is the difference in price between Perodua Bezza and Perodua Alza?

2

Allocation for charity RM85 000

- Contribution to school RM35 500
- Restoration of orphanage RM30 287.95
- Financial aid for underprivileged pupils ☐

How much financial aid is given to underprivileged pupils?

RM85 000 – RM35 500 – RM30 287.95 = ☐

$$\begin{array}{r} \overset{14}{\cancel{7}}\ \overset{10}{\cancel{4}}\ \overset{10}{\cancel{0}}00 \\ -\ 35\,500 \\ \hline 49\,500 \end{array} \qquad \begin{array}{r} \overset{4}{\cancel{4}}\overset{9}{9}\ \overset{10}{\cancel{5}}00.\overset{100}{\cancel{00}} \\ -\ 30\,287.95 \\ \hline 19\,212.05 \end{array}$$

RM85 000 – RM35 500 – RM30 287.95 = **RM19 212.05**

RM19 212.05 is given to underprivileged pupils.

TEACHER'S NOTES

- Emphasise that RM1 is equal to 100 sen when regrouped to sen. Remind pupils to put the RM symbol in the answer.
- Use daily situations such as expenses, donations, and zakat to carry out subtraction up to three values of money.
- Instil patriotism using examples of local products.

3 RM68 476 – ☐ = RM23 936.30

RM68 476 – RM23 936.30 = ☐

A simple example.
8 – 3 = 5
8 – 5 = 3

SCAN THIS

```
      7 14 6 15 100
  RM 6 8 4 7 6 . 0 0
– RM 2 3 9 3 6 . 3 0
  RM 4 4 5 3 9 . 7 0
```

RM68 476 – **RM44 539.70** = RM23 936.30

MIND TEASER

RM49 273 – RM5 881.60 = △ – RM20 478.19

What is the value represented by △?

TEST YOURSELF

1 Subtract.

a RM64 820 – RM3 715 = ☐

b RM94 786.75 – RM51 236.25 = ☐

c RM65 189 – RM13 687.25 = ☐

d RM76 200.65 – RM5 100 – RM23 003.20 = ☐

e ☐ = RM98 000 – RM574.85 – RM24 395.75

f RM58 835.80 – ☐ = RM12 758.95

2 a Calculate the difference between RM17 492.05 and RM24 875.

b What is the number that should subtract RM12 287 in order to get RM20 000?

3 Solve these. Then, arrange the answers in descending order. Write the letters according to the answer sequence. What is the word formed?

M	RM70 000 – RM6 231.85 = ☐
T	RM50 000 – RM15 000 – RM25 000 = ☐
A	RM86 325.75 – RM49 631.20 – RM7 400 = ☐
R	RM58 506.10 – RM37 429 = ☐
S	☐ – RM3 348 – RM74 829.15 = RM306.60

TEACHER'S NOTES

- Carry out pairwork activities where pupils construct questions on subtraction up to two to three values of money to be solved by their partners.

ADDITION AND SUBTRACTION OF MONEY

1

account balance
RM45 180

account balance
RM23 596.30

money invested
in batik trading
RM60 849.70

What is the balance of Puan Badariah's money after the investment in batik trading?

RM45 180 + RM23 596.30 – RM60 849.70 = ☐

```
      1                          15
  RM 4 5  1 8 0 . 0 0        7 17 6 5  13
+ RM 2 3  5 9 6 . 3 0      RM 6 8  7 7 6 . 3 0
-------------------        - RM 6 0  8 4 9 . 7 0
  RM 6 8  7 7 6 . 3 0      -------------------
                             RM   7  9 2 6 . 6 0
```

RM45 180 + RM23 596.30 – RM60 849.70 = **RM7 926.60**

The balance of Puan Badariah's money is **RM7 926.60**.

2 RM66 258 – RM907.45 + RM8 138.20 = ☐

```
      5 12  7  100                1
  RM 6 6  2 5 8 . 0 0        RM 6 5  3 5 0 . 5 5
- RM       9 0 7 . 4 5      + RM   8  1 3 8 . 2 0
-------------------        -------------------
  RM 6 5  3 5 0 . 5 5        RM 7 3  4 8 8 . 7 5
```

RM66 258 – RM907.45 + RM8 138.20 = **RM73 488.75**

Calculate RM8 138.20 – RM907.45 + RM66 258.
Are the answers the same?

TEACHER'S NOTES

- Emphasise that the operations must be solved one by one by working from left to right to avoid mistakes.

3 RM24 332.60 + RM36 780.90 – ☐ = RM18 570.45

Method 1

I use numbers with small value to write a number sentence to be solved.

$6 + 4 - \boxed{8} = 2$

$10 - \boxed{8} = 2$

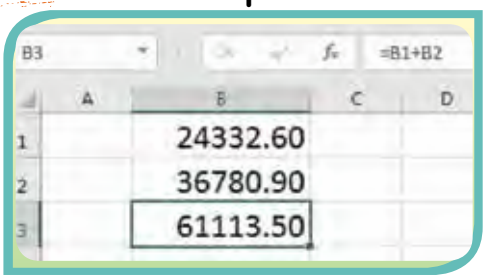
$10 - 2 = \boxed{8}$

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

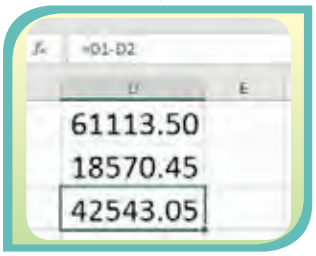
```
      10 10
    5 0  0 11     4 10
  RM 6 1  1 1 3 . 5 0
- RM 1 8  5 7 0 . 4 5
  ---------------------
  RM 4 2  5 4 3 . 0 5
```

Method 2

Step 1



Step 2



RM24 332.60 + RM36 780.90 – **RM42 543.05** = RM18 570.45

Arrange all the following cards to form a correct number sentence.

RM4 865 | RM7 000 | + | – | RM2 312 | RM9 553 | =

TEST YOURSELF

1 Calculate.

a RM6 257 + RM4 631 – RM3 812 = ☐

b RM75 930 – RM48 210.63 + RM26 970 = ☐

c RM23 456.95 + RM73 410 – RM30 000.65 = ☐

d ☐ = RM71 700 – RM8 346.10 + RM2 294.18

e RM65 598.20 + RM14 890 – ☐ = RM36 432.90

2 Solve these.

a Deduct RM2 378 from the sum of RM16 289 and RM7 015.

b How much needs to be deducted from RM42 198.50 and RM8 633 to become RM27 714.50?

TEACHER'S NOTES

- In pairs, ask pupils to prepare questions and share with other pairs. Surf https://thinkingpathwayz.weebly.com/giveonegetone.html to carry out "give one, get one" activity.
- Carry out activities on subtraction of values of money using MS Excel software to encourage the use of ICT.

MULTIPLICATION OF MONEY

1

a What is the total amount of financial aid received by the 5 pupils above?

5 × RM2 800 = ☐

Method 1

```
      4
  RM  2 8 0 0
×           5
-------------
  RM 1 4 0 0 0
```

Method 2

RM2 800

RM2 000 RM800

5 × RM2 000 = RM10 000
5 × RM800 = RM4 000

RM10 000 + RM4 000 = RM14 000

5 × RM2 800 = **RM14 000**

The total amount of financial aid is **RM14 000**.

b 34 pupils receive the same amount of financial aid as above. Calculate the total amount of financial aid.

34 × RM2 800 = ☐

Method 1

```
      2
      3
  RM  2 8 0 0
×           3 4
-------------
      1 1 2 0 0
+     8 4 0 0 0
-------------
  RM 9 5 2 0 0
```

Method 2

	2	8	0	0	×
0	0 / 6	12 / 4	0 / 0	0 / 0	3
9	0 / 8	3 / 2	0 / 0	0 / 0	4
	5	2	0	0	

34 × RM2 800 = RM95 200

34 × RM2 800 = **RM95 200**

The total amount of financial aid is **RM95 200**.

TEACHER'S NOTES

- Carry out simulation activities to enhance pupils' understanding in multiplying values of money involving one digit and two digits.
- Use various methods of calculation such as partitioning and repeated addition.
- Remind pupils that multiplication of values of money is the same as addition of numbers.

2

SIHAT EXERCISE EQUIPMENT CENTRE

Exercise bike
RM5 095.30

What is the total cost for 10 exercise bikes?

10 × RM5 095.30 = ☐

Method 1

```
  RM   5 0 9 5 . 3 0
×                1 0
-------------------
  RM 5 0 9 5 3 . 0 0
```

Method 2

10 × RM5 095.30 = RM50 953

10 × RM5 095.30 = **RM50 953**

The total cost for 10 exercise bikes is **RM50 953**.

TIPS

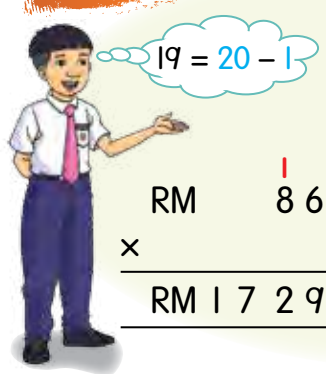
Shift the point one place to the right if multiplied by 10.

3 19 × RM864.70 = ☐

Method 1

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

Method 2



20 × RM864.70 = ☐

1 × RM864.70 = ☐

```
        1   1
  RM      8 6 4 . 7 0
×                2 0
-------------------
  RM 1 7 2 9 4 . 0 0
```

```
        6 12 8 13 100
  RM 1 7 2 9 4 . 0 0
– RM      8 6 4 . 7 0
-------------------
  RM 1 6 4 2 9 . 3 0
```

19 × RM864.70 = **RM16 429.30**

TEST YOURSELF

1 Calculate.

a 10 × RM433 = ☐

b 10 × RM6 578.60 = ☐

c 2 × RM14 243 = ☐

d 9 × RM3 192.85 = ☐

e 18 × RM967.15 = ☐

f 65 × RM437.20 = ☐

2 Calculate the cost of 23 drones.

Drone | *RM2 900*

TEACHER'S NOTES

- Surf for online merchandise and carry out activities on multiplication of values of money.
- Provide questions on multiplication of values of money involving unknowns and guide pupils to solve them. For example, 8 × RM ☐ = RM5 200.

DIVISION OF MONEY

1 Based on the receipt, what is the cost of an electric bicycle?

RM19 192 ÷ 8 = ☐

```
      RM  2 3 9 9
8 ) RM 1 9  1 9 2
     − 1 6
       3 1
     − 2 4
         7 9
       − 7 2
           7 2
         − 7 2
           0
```

OFFICIAL RECEIPT

Wawasan Bicycle Supplier
No. 55, Jalan Zamrud, Taman Ria,
75450 Ayer Keroh, Melaka.
Tel. : 06-5002164

Date: 7.4.2019

Received from : Jaya Bicycle Club
Ringgit Malaysia : Nineteen Thousand One Hundred and Ninety Two
Payment for : 8 units of electric bicycles

RM19 192
~~Cash~~/Cheque no.: BP 56987

Manager

RM19 192 ÷ 8 = **RM2 399**

The cost of an electric bicycle is **RM2 399**.

2 RM10 907.50 ÷ 10 = ☐

RM10 907.50 ÷ 10 = RM1 090.75

RM10 907.50 ÷ 10 = **RM1 090.75**

TIPS

Shift the point one place to the left if divided by 10.

3 RM38 000 ÷ 40 = ☐

```
      RM    9 5 0
40 ) RM 3 8 0 0 0
     − 3 6 0
       2 0 0
     − 2 0 0
           0 0
         −   0
             0
```

RM38 000 ÷ 40 = **RM950**

Calculate mentally RM38 000 ÷ 20.

4 RM29 063 ÷ 5 = ☐

```
      RM  5 8 1 2 . 6 0
5 ) RM 2 9 0 6 3 . 0 0
     − 2 5
       4 0
     − 4 0
         0 6
       −  5
          1 3
       − 1 0
            3 0
         − 3 0
              0 0
            −   0
                0
```

RM29 063 ÷ 5 = **RM5 812.60**

TEACHER'S NOTES

- Use various situations such as donations, financial aid, and purchases of goods to solve division number sentences.

5 RM70 213 ÷ 52 = ☐

Estimate the answer

$\frac{\text{RM70 213}}{52} \rightarrow \frac{\text{RM70 00}\cancel{0}}{5\cancel{0}}$

```
      RM 1 4 0 0
  5 ) RM 7 0 0 0
      - 5
        2 0
      - 2 0
          0 0
        -   0
            0 0
          -   0
              0
```

Construct 52 times table.

5	2	52
5	02	52
10	04	104
15	06	156
20	08	208
25	10	260
30	12	312
35	14	364
40	16	416
45	18	468

Calculate the actual answer

```
      RM   1 3 5 0 . 2 5
  52 ) RM 7 0 2 1 3 . 0 0
      - 5 2
        1 8 2
      - 1 5 6
          2 6 1
        - 2 6 0
              1 3
            -   0
              1 3 0
            - 1 0 4
                2 6 0
              - 2 6 0
                    0
```

RM1 350.25 is nearer to RM1 400.
The answer is reasonable.

RM70 213 ÷ 52 = **RM1 350.25**

TEST YOURSELF

1 Divide.

a RM13 926.50 ÷ 10 = ☐
b RM84 235 ÷ 10 = ☐
c RM8 464 ÷ 4 = ☐
d RM34 572 ÷ 8 = ☐
e RM84 332.15 ÷ 7 = ☐
f RM95 736 ÷ 80 = ☐
g RM17 216.40 ÷ 12 = ☐
h RM89 328.75 ÷ 75 = ☐

2 What is the price of an archery set?

Price of 40 sets RM33 200

3 How much is the monthly instalment?

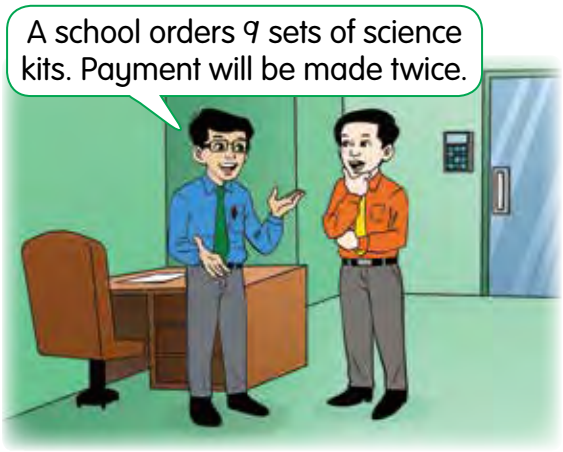
The total instalment for 12 months is RM7 020

TEACHER'S NOTES

- Pupils solve operations of division in groups and move around to check the calculations and answers of other groups.
- Provide questions on division of values of money involving unknowns and guide pupils to solve them. For example, RM ☐ ÷ 6 = RM2 050.

MULTIPLICATION AND DIVISION OF MONEY

1



What is the amount of each payment?

9 × RM780 ÷ 2 = ☐

$$\begin{array}{r} \text{RM}\ \overset{7}{7}\,8\,0 \\ \times\ \ 9 \\ \hline \text{RM}\ 7\ 0\,2\,0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{RM}\ 3\ 5\ 1\ 0 \\ 2\,\overline{)\,\text{RM}\ 7\ 0\ 2\ 0} \\ -6 \\ \hline 1\ 0 \\ -1\ 0 \\ \hline 0\ 2 \\ -\ \ 2 \\ \hline 0\ 0 \\ -\ \ 0 \\ \hline 0 \end{array}$$

9 × RM780 ÷ 2 = **RM3 510**

The amount of each payment is **RM3 510**.

2 60 tablets cost RM54 000. What is the cost of 15 similar tablets?

RM54 000 ÷ 60 × 15 = ☐

$$\frac{\text{RM}\overset{900}{\cancel{54\ 000}}}{\underset{1}{\cancel{60}}} \times 15 = \text{RM}13\ 500$$

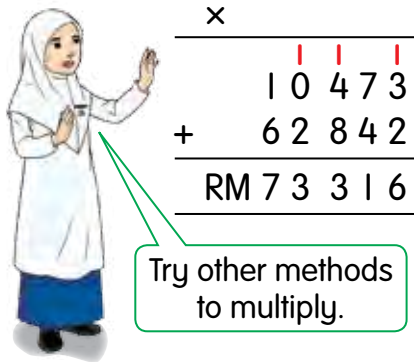
RM54 000 ÷ 60 × 15 = **RM13 500**

The cost of 15 similar tablets is **RM13 500**.

TEACHER'S NOTES

- Use other calculation strategies like estimation and partition to multiply and divide values of money.

3 35 × RM2 094.75 ÷ 7 = ☐




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

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

35 × RM2 094.75 ÷ 7 = **RM10 473.75**

4 The following shows calculations by two pupils to solve RM20 000 divided by 5 multiplied by 8.

$$\frac{\text{RM}\overset{4\,000}{\cancel{20\,000}}}{\underset{1}{\cancel{5}}} \times 8 = \text{RM}4\,000 \times 8$$

```
  RM   4 0 0 0
×            8
-------------
  RM 3 2 0 0 0
```

RM20 000 ÷ 5 × 8
= RM20 000 ÷ 40
= RM500

Who calculated correctly? Why?

TEST YOURSELF

Calculate.

(a) 9 × RM4 000 ÷ 2 = ☐

(b) RM7 000 ÷ 4 × 5 = ☐

(c) RM13 889.70 ÷ 11 × 2 = ☐

(d) 36 × RM234.85 ÷ 4 = ☐

(e) RM9 506 ÷ 10 × 80 = ☐

(f) RM33 300 ÷ 48 × 9 = ☐

TEACHER'S NOTES

- Discuss the common mistakes made by pupils in multiplication and division of values of money as shown in example 4 to reinforce pupils' understanding.

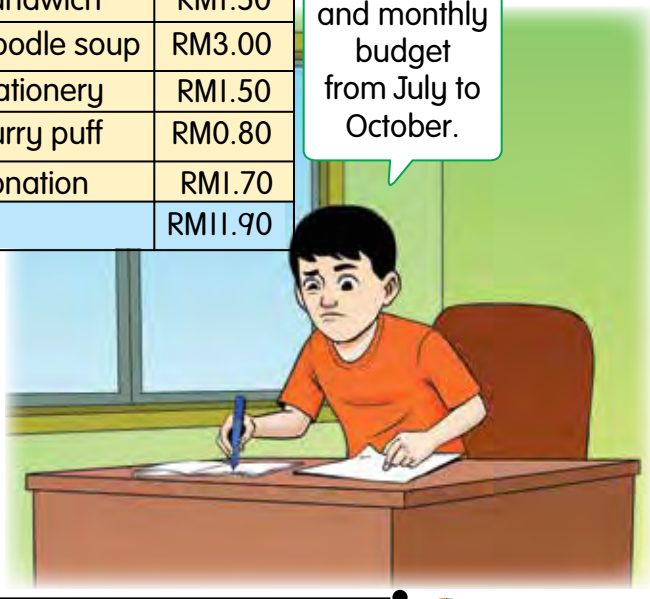
MANAGE MONEY WISELY

1 a

b

Daily budget - Week 1 of July

Day	Money received		Savings	Expense	
Monday	Pocket money	RM4.00	RM3.80	*Nasi lemak*	RM1.20
	From mother	RM2.00		Exercise book	RM1.00
Tuesday	Pocket money	RM4.00	RM2.80	*Roti canai*	RM1.20
Wednesday	Pocket money	RM4.00	RM2.50	Sandwich	RM1.50
Thursday	Pocket money	RM4.00	RM3.50	Noodle soup	RM3.00
	From brother	RM4.00		Stationery	RM1.50
Friday	Pocket money	RM4.00	RM1.50	Curry puff	RM0.80
				Donation	RM1.70
Total per week		RM26.00	RM14.10		RM11.90



TEACHER'S NOTES

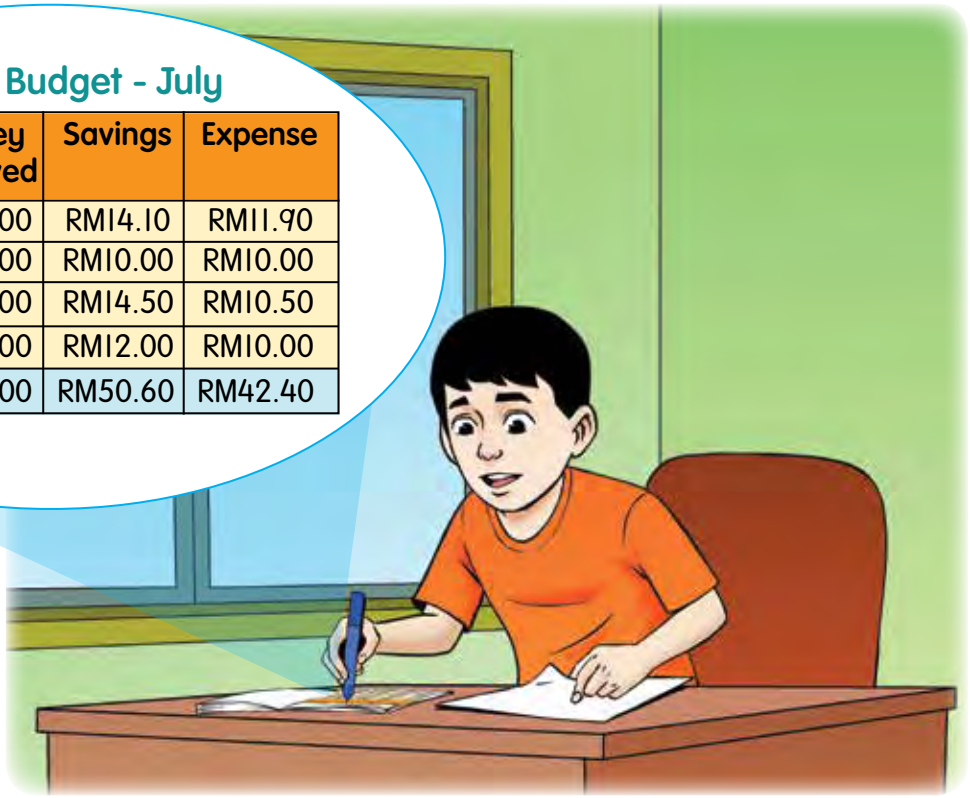
- Explain the importance and benefits of making a budget to manage money systematically in order to achieve a target. Encourage habits of saving money and utilising free time to earn extra money such as by washing cars.

3.3.1
3.3.2

c

Weekly Budget - July

Week	Money received	Savings	Expense
First	RM26.00	RM14.10	RM11.90
Second	RM20.00	RM10.00	RM10.00
Third	RM25.00	RM14.50	RM10.50
Fourth	RM22.00	RM12.00	RM10.00
Total	RM93.00	RM50.60	RM42.40



d

Monthly Savings Table

Month	Savings	Notes
July	RM50.60	
August	RM40.50	
September	RM41.85	
October	RM47.00	
Total	RM179.95	

Set a target. Record your savings and expenses to achieve the target.

TEACHER'S NOTES

- Guide pupils to record their daily income and expenses in their pocket money book and keep a weekly and monthly financial record.
- Provide tasks to train pupils in preparing weekly and monthly budget in groups. Ask them to present their work and discuss.

3.3.1
3.3.2

KPM

2

Importance of keeping records of savings and expenses

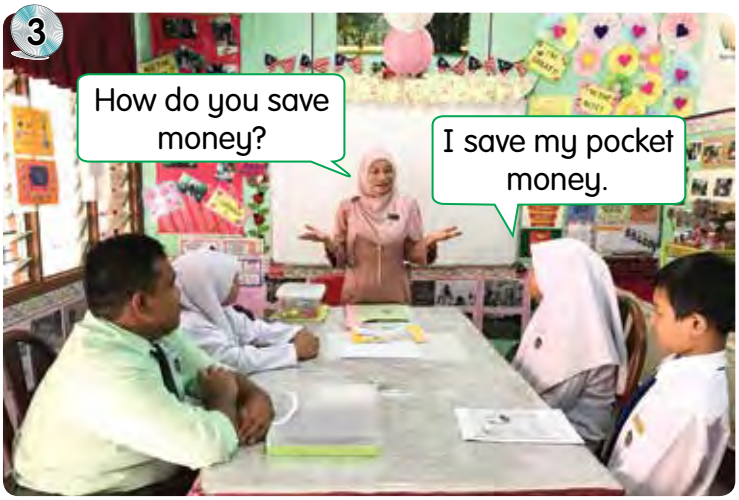
- Avoid debt

- Save money for the future

- Control excessive spending

- Prioritise needs

3



TEACHER'S NOTES

- Carry out an in-depth discussion on the importance of keeping records of savings and expenses, and ways to save money.
- Surf http://www.fomca.org.my/vl/index.php/fomca-di-pentas-media/fomca-di-pentas-media-2016/59-membantu-pelajar-merancang-kewangan

FUN EXPLORATION

Nabila wishes to buy *Kamus Dewan*. Help Nabila to plan a budget using MS Excel so that she can buy the dictionary.

Tools/ Materials Question cards (Nabila's savings and expenses) and MS Excel software.

Date	Money received		Expense	
06.06.2020	*Duit raya*	RM25.00		
10.06.2020	Pocket money	RM6.00	*Nasi lemak*	RM1.50
13.06.2020	Pocket money	RM6.00	*Roti canai*	RM1.20
17.06.2020	Pocket money	RM6.00	Curry mee	RM1.50
28.06.2020	Pocket money	RM6.00	Bread and milk	RM2.00
29.06.2020	Pocket money	RM6.00	*Roti jala*	RM2.00

Scan the following QR Code to learn the steps of preparing a budget in MS Excel.

SCAN THIS

TEST YOURSELF

1 Karl wants to buy a pencil case which costs RM12.

a Is Karl's total expenses equal to his total income?

b Does Karl have enough money to buy the pencil case?

Karl's Budget

Money received		Expense	
Pocket money	RM5.00	Curry puff and cake	RM2.00
Pocket money	RM5.00	*Nasi lemak*	RM2.00
		Drawing paper	RM1.00
Pocket money	RM5.00	*Tose*	RM2.00
From brother	RM10.00	Stationery	RM5.00
Pocket money	RM5.00	*Roti canai*	RM2.00
Pocket money	RM5.00	Steamed bun	RM2.00
Earned from washing cars	RM15.00	Toy	RM5.00
Total			

2 State two importance of keeping records of savings and expenses.

3 List ways to save money.

TEACHER'S NOTES

- Guide pupils to identify and keeping records of savings and expenses using MS Excel in the Fun Exploration activity.
- Instil values of being thrifty and spending money wisely.

3.3.1
3.3.2
3.3.3

KPM

MAKE WISE DECISIONS

1 a

Zura's Wishes for August

Needs	Wants
Rice	Biryani rice
School shoes	Branded sports shoes
Zura's **priority** is to buy a **branded pair of sports shoes.**	

I want to do high jump training. This branded pair of sports shoes will be comfortable and durable.

I am estimating the price of a branded pair of sports shoes to be RM120. I have RM60 as savings. I must try to save money before August.

b

Price of sports shoes	Cash in hand	Money needed	The amount needed to be saved monthly	Duration to achieve	Ways to earn extra money
RM120	RM60	RM60	RM30	2 months	1. Selling *kuih* 2. Washing cars 3. Selling used items

c

Date	Money earned		Spent		Balance
19.05	Cash in hand	RM60.00	None	RM0.00	RM60.00
26.05	Selling *kuih*	RM8.00	None	RM0.00	RM68.00
02.06	None	RM0.00	Stationery	RM15.00	RM53.00
16.06	Washing cars	RM40.00	None	RM0.00	RM93.00
21.07	Selling used items	RM50.00	Donation	RM5.00	RM138.00

Will Zura manage to buy the branded sports shoes?

TEACHER'S NOTES

- Each group of pupils is given different situations to discuss. Pupils then make financial decisions and justify the decisions made.

3.4.1
3.4.2
3.4.3

2

Lee needs to earn extra money to join the Scouts Jamboree in September. The following is his financial record for August.

10.08	Received from uncle RM5
20.08	Bought notebook RM6
22.08	Sold National Day bookmarks RM17
23.08	Donated to jogathon RM3
25.08	Sold old newspapers RM8
31.08	Cash money from lucky draw RM20

Lee's Financial Record

Date	Money earned		Spent		Balance
01.08	Savings	RM60.00	None	RM0.00	RM60.00
10.08	Received from uncle	RM5.00	None	RM0.00	
20.08	None	RM0.00	Bought notebook	RM6.00	
22.08	Sold bookmarks	RM17.00	None	RM0.00	
23.08	None	RM0.00	Donated to jogathon	RM3.00	
25.08	Sold old newspapers	RM8.00	None	RM0.00	
31.08	Lucky draw	RM20.00	None	RM0.00	

Complete Lee's financial record. Does he have enough money to join the jamboree?

TEST YOURSELF

1. List ways to earn extra money.
2. Write down your needs and wants. Decide on your priority. Prepare a financial record to achieve your priority.

TEACHER'S NOTES

- Discuss the effects of making financial decisions on oneself and family.

3.4.1
3.4.2
3.4.3

KPM

MAIN CURRENCIES OF THE WORLD AND THEIR VALUES

France

Euro

United States of America

Dollar

Japan

Yen

Russia

Ruble

China

Renminbi

Saudi Arabia

Riyal

Australia

Dollar

Bangladesh

Taka

South Korea

Won

Great Britain

Pound Sterling

TEACHER'S NOTES

- Show samples of foreign currencies using the website https://www.pinterest.com/livafiel/world-currency/?lp=true
- Carry out an activity to make scrapbooks on foreign currencies using the website http://www.instantshift.com/2014/12/01/beautiful-country-currency/

Let's look at foreign currency values compared to one ringgit. The values vary according to current exchange rates.

Foreign Currency Exchange Rate Compared to RM1

Country	Currency	Exchange rate
United States of America	Dollar	0.238
Canada	Dollar	0.317
France	Euro	0.219
Russia	Ruble	15.539
South Korea	Won	286.51
Saudi Arabia	Riyal	0.895
Great Britain	Pound Sterling	0.194
China	Renminbi	1.705
Japan	Yen	25.823
Bangladesh	Taka	20.148
India	Rupee	16.963
Australia	Dollar	0.356

Source: https://my.exchange-rates.org/ retrieved on 1.10.2019

India

Rupee

Canada

Dollar

State three countries that use dollar.

TEST YOURSELF

1 What is the currency of each country below?

a United States of America
b Great Britain
c South Korea
d Bangladesh

2 State the currency and value compared to RM1 for the countries below.

a China
b Russia
c Japan
d Australia

TEACHER'S NOTES

- Discuss the importance of foreign currency exchange and their uses in daily life. For example, in tourism and in business.
- Discuss factors of changes in currency rate for additional knowledge.

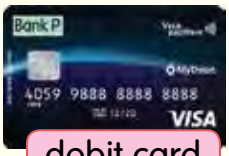
3.5.1
3.5.2

PAYMENT INSTRUMENTS

Payment instruments

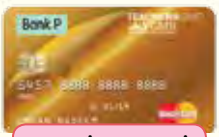
cash

Direct payment using notes and coins.



debit card

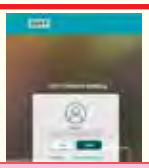
Payment through savings account using card.



credit card

Spend first and pay later to the bank and card issuer such as supermarkets.

Please enter your pin number, sir. Thank you.



Internet banking

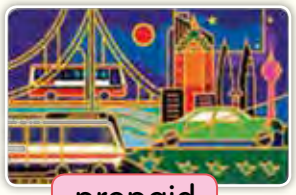
Payment of transactions and services through an online account using the Internet.

Discuss other payment instruments.

TEACHER'S NOTES

- Ask pupils to share experiences of using the latest payment instruments. For example, e-wallet and QRpay.
- Provide several situations and ask pupils to state the suitable payment instruments.

3.6.1
3.6.2



prepaid card

Payment is made using existing cash balance using top-up service.

e-wallet

Cashless payment using applications in an electronic device.

cheque

Written order to a bank to pay the stated amount of money.

postal order

Represents cash to be sent to a specified payee issued by the post office.

TEST YOURSELF

Name the payment instrument for the following transactions.

(a) fill up petrol tank

(b) buy fish at the wholesale market

(c) pay telephone bill

(d) buy furniture

TEACHER'S NOTES

- Discuss the strengths and weaknesses of a payment instrument.

SOLVE THE PROBLEMS

1. The table shows the prices of computer equipment supplied by a wholesaler to three computer shops. Calculate the total price of the computer equipment supplied.

Shop	Price of computer equipment
A	RM12 425.20
B	RM19 899
C	RM28 170

Understand the problem

Price of computer equipment:
RM12 425.20, RM19 899, RM28 170
Find the total price.

Plan the strategy

?

RM12 425.20	RM19 899	RM28 170

RM12 425.20 + RM19 899 + RM28 170 = ☐

Solve

```
   2 1 1 1
  RM1 2 4 2 5 . 2 0
  RM1 9 8 9 9 . 0 0
+ RM2 8 1 7 0 . 0 0
  RM6 0 4 9 4 . 2 0
```

Check

```
   5 10                  1 1 1 2 1 1
  RM6 0 4 9 4 . 2 0      2 1 2 1 14
- RM2 8 1 7 0 . 0 0      RM3 2 3 2 4 . 2 0
  RM3 2 3 2 4 . 2 0    - RM1 9 8 9 9 . 0 0
                         RM1 2 4 2 5 . 2 0
```

RM12 425.20 + RM19 899 + RM28 170 = **RM60 494.20**

The total price of the computer equipment supplied is **RM60 494.20**.

Calculate the difference in the price of computer equipment between shop A and shop C.

TEACHER'S NOTES

- Guide pupils to understand the questions by identifying keywords. For example, total involves addition operation.

2 In July, Anding pays his son's tuition fees of RM27 000 using his savings of RM85 600.40. In August, he deposits a cheque worth RM33 565 into his account. What is his current balance?

• Understand the problem •

Present the information in a table.

Particular	Cash in	Cash out	Balance
Savings	RM85 600.40		
Tuition fees		RM27 000	
Cheque	RM33 565		

• Plan the strategy •

RM85 600.40 – RM27 000 + RM33 565 = ☐

• Solve •

$$\begin{array}{r} {\scriptstyle 7\ 15} \\ \text{RM}\not{8}\not{5}\ 600.40 \\ -\ \text{RM}27\ 000.00 \\ \hline \text{RM}58\ 600.40 \end{array} \qquad \begin{array}{r} {\scriptstyle 1\ 1} \\ \text{RM}58\ 600.40 \\ +\ \text{RM}33\ 565.00 \\ \hline \text{RM}92\ 165.40 \end{array}$$

• Check •

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ {\scriptstyle 8\ \not{1}\ 11} \\ \text{RM}\not{9}\not{2}\ \not{1}65.40 \\ -\ \text{RM}33\ 565.00 \\ \hline \text{RM}58\ 600.40 \end{array} \qquad \begin{array}{r} {\scriptstyle 1} \\ \text{RM}58\ 600.40 \\ +\ \text{RM}27\ 000.00 \\ \hline \text{RM}85\ 600.40 \end{array}$$

RM85 600.40 – RM27 000 + RM33 565 = **RM92 165.40**

The current balance is **RM92 165.40**.

TEACHER'S NOTES

- Use various daily life situations involving cash in and cash out such as account statement and financial records for problem solving activities.

3 The cost of installing a closed-circuit camera in a shophouse is RM2 750. What is the cost of installing similar cameras in 8 shophouses?

write down information

The cost of installing a camera in a shophouse is RM2 750. Find the cost of installing cameras in 8 shophouses.

2 750	2 750	2 750	2 750	2 750	2 750	2 750	2 750

?

Solve

8 × RM2 750 = ☐

```
      6  4
  RM  2  7 5 0
×             8
  RM 2 2  0 0 0
```

8 × RM2 750 = **RM22 000**

Check

$$\frac{\text{RM}\overset{2\,750}{\cancel{22\,000}}}{\underset{1}{\cancel{8}}} = \text{RM2 750}$$

The cost of installing cameras in 8 shophouses is **RM22 000**.

4 A company allocates RM3 500 a month for charity. The total sum per year is donated equally to 7 welfare homes. Calculate the amount received by one welfare home.

12 × RM3 500 ÷ 7 = ☐

Solve

```
      1
  RM  3 5 0 0
×           1 2
      1 7 0 0 0
+    3 5 0 0 0
  RM 4 2 0 0 0
```

$$\frac{\text{RM}\overset{6\,000}{\cancel{42\,000}}}{\underset{1}{\cancel{7}}} = \text{RM6 000}$$

Show another method to solve it.

12 × RM3 500 ÷ 7 = **RM6 000**

The amount received by one welfare home is **RM6 000**.

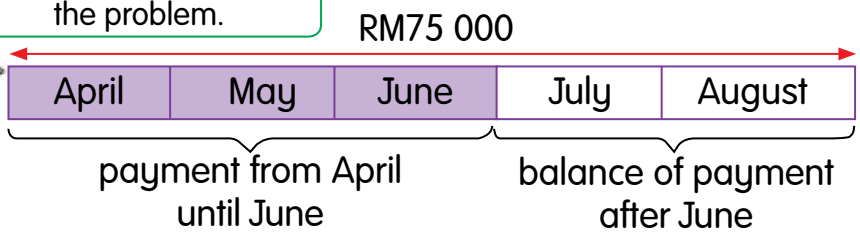
TEACHER'S NOTES

- Form two groups, A and B. Each group solves a question. Pupils guide peers from another group through the Rally Coach activity.

5 The cost to renovate Encik Ming Ho's house is RM75 000. He pays in 5 equal instalments in April, May, June, July, and August.

a How much payment is made until June?

b What is the balance of payment to be paid after June?



Solve

a RM75 000 ÷ 5 × 3 = ☐

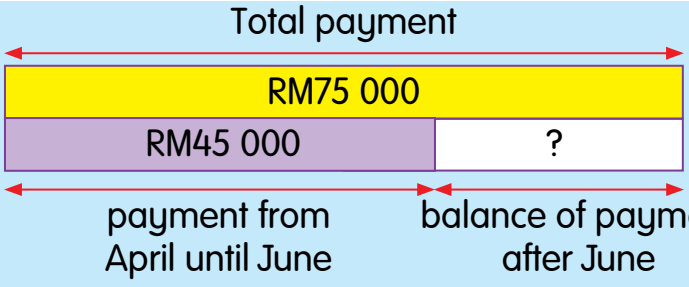
$$\frac{\overset{15\,000}{\cancel{RM75\,000}}}{\cancel{5}} = RM15\,000$$

$$\begin{array}{r} {\scriptstyle 1} \\ RM15\,000 \\ \times \quad 3 \\ \hline RM45\,000 \end{array}$$

RM75 000 ÷ 5 × 3 = **RM45 000**

The payment made until June is **RM45 000**.

b



Balance of payment = RM75 000 – RM45 000
= RM30 000

The balance of payment after June is **RM30 000**.

TEACHER'S NOTES

- Guide pupils to understand the problem, identify keywords, and write number sentences to represent the problem to be solved, and finally check the answers.

TEST YOURSELF

1. A charity donation of RM85 475.80 is distributed to 3 welfare homes. Fikrah Orphanage and Cahaya Orphanage receive RM25 630 and RM19 570.50 respectively. The balance is received by the home for the elderly.
   a. How much money does Fikrah Orphanage and Cahaya Orphanage receive altogether?
   b. Calculate the sum of money given to the home for the elderly.

2. Zaidi's father had RM34 807.12 in his bank account. A year later, he withdrew RM20 000 to run his durian and mango farms. After a period of time, he banked in RM13 047.80 obtained from his farm's produce. Calculate his remaining account balance.

3. The picture shows the price of a motorcycle. Mahsuri Jaya Transport Company buys 9 motorcycles for its business. What is the total price of 9 motorcycles?

RM6 506.98

4. Twenty years ago, Langkanau's mother bought a gold necklace at the price of RM2 125. Its price now is 5 times the original price. Calculate the current price of the gold necklace.

5. Puan Kumari has an annual pay of RM85 675.80. Calculate her monthly pay.

6. Syarikat Bintang Emas allocated RM87 750 for Tuition Harapan programme. The money is distributed equally to 13 secondary schools. How much money is received by 3 schools?

7. The total amount of rental collection for several homestays is RM15 600 per month and is equally divided among 3 friends. How much profit does each person gain in 6 months?

MIND RIDDLE

LET'S PLAY TARSIA

Tools/Materials Matching cards, A4 paper, and pens.

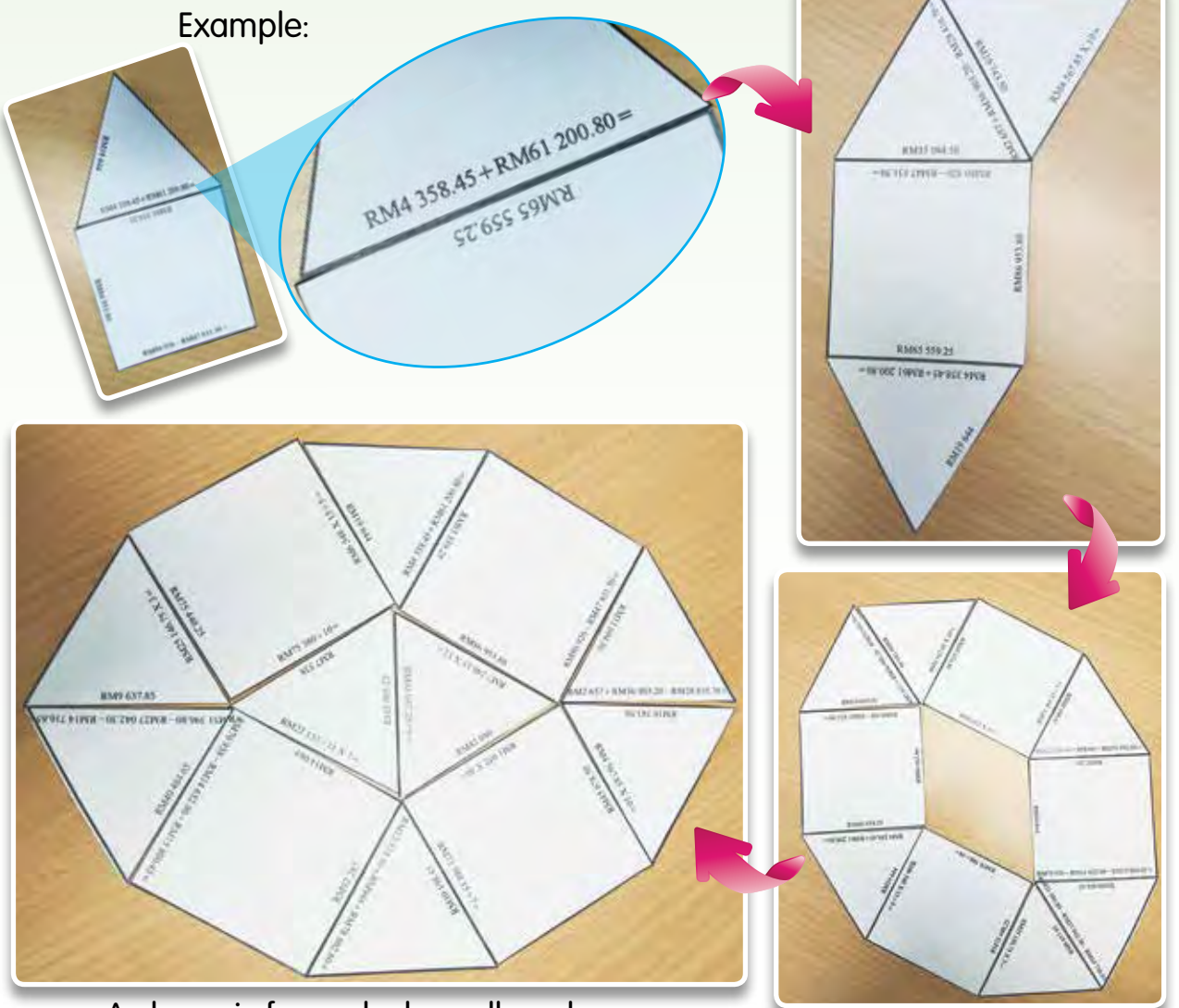
Participants In pairs or in groups.

How to play

SCAN THIS

1. Solve each question on the matching cards.
2. Find the answers on other cards.
3. Match the questions to the answers.

Example:



A shape is formed when all cards are combined together.

TEACHER'S NOTES

- Prepare several sets of cards for the activity.
- Modify questions to suit pupils' ability.
- Download questions for Tarsia from the Internet.

MIND CHALLENGE

1 Calculate.

a RM49 500 + RM18 759.30 = ____

b RM58 077.40 – RM23 602.50 = ____

c RM48 690.80 + RM32 577.40 + RM2 116 = ____

d RM86 995.75 – RM8 600.30 – RM23 156 = ____

e RM37 500 + RM41 285 – RM3 700 = ____

f 65 × RM900.20 = ____

g RM17 342 ÷ 10 = ____

h 16 × RM4 235.80 ÷ 2 = ____

i RM68 034.40 ÷ 7 × 9 = ____

j ____ – RM23 456.95 = RM42 250.25

2 a Total up RM18 960, RM23 650.25 and RM55 000.

b The total sales of chickens, goats, and cows is RM63 933. The sales of chickens and goats are RM4 238 and RM17 695 respectively. What is the sales of cows?

3 The table shows Lim's incomplete bank account statement. What is his final balance as of 30.08.2020?

Date	Cash in	Cash out	Balance
19.06.2020	RM2 000.00	-	RM87 691.25
24.07.2020	-	RM18 500.00	
30.08.2020	-	RM8 068.99	

4 Jaya Craft Business makes a profit of RM12 540.60 in May. Its profit increases by RM2 089.85 in June. Find the total profit in May and June.

5 A cooperative distributes a profit of RM61 250 equally to 25 members. Find the total profit received by Ah Sim and 7 of his friends.

6 In conjunction with Visit Malaysia Year, tourists from the United States of America, the Great Britain, and Saudi Arabia travel to Malaysia. What is the currency for each country?

7 List suitable payment instruments for the situations below.

a Victor's father pays a toll fare of RM25.50.

b Kalsom's mother purchased goods worth RM560. She made a cashless payment.