



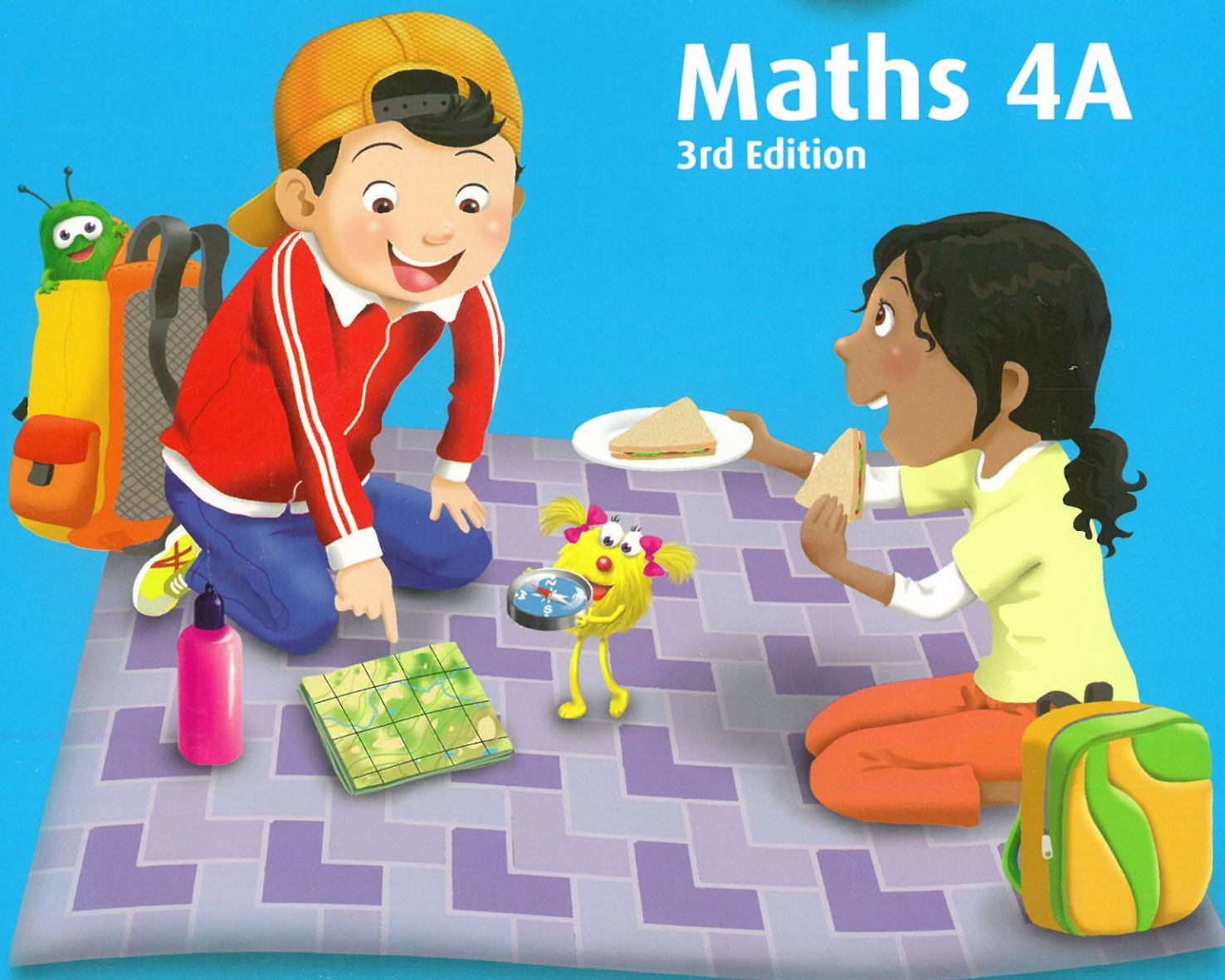
Marshall Cavendish  
Education

# Pupil's Book

# MY PALS ARE HERE!

## Maths 4A

3rd Edition



Dr Fong Ho Kheong • Gan Kee Soon • Chelvi Ramakrishnan

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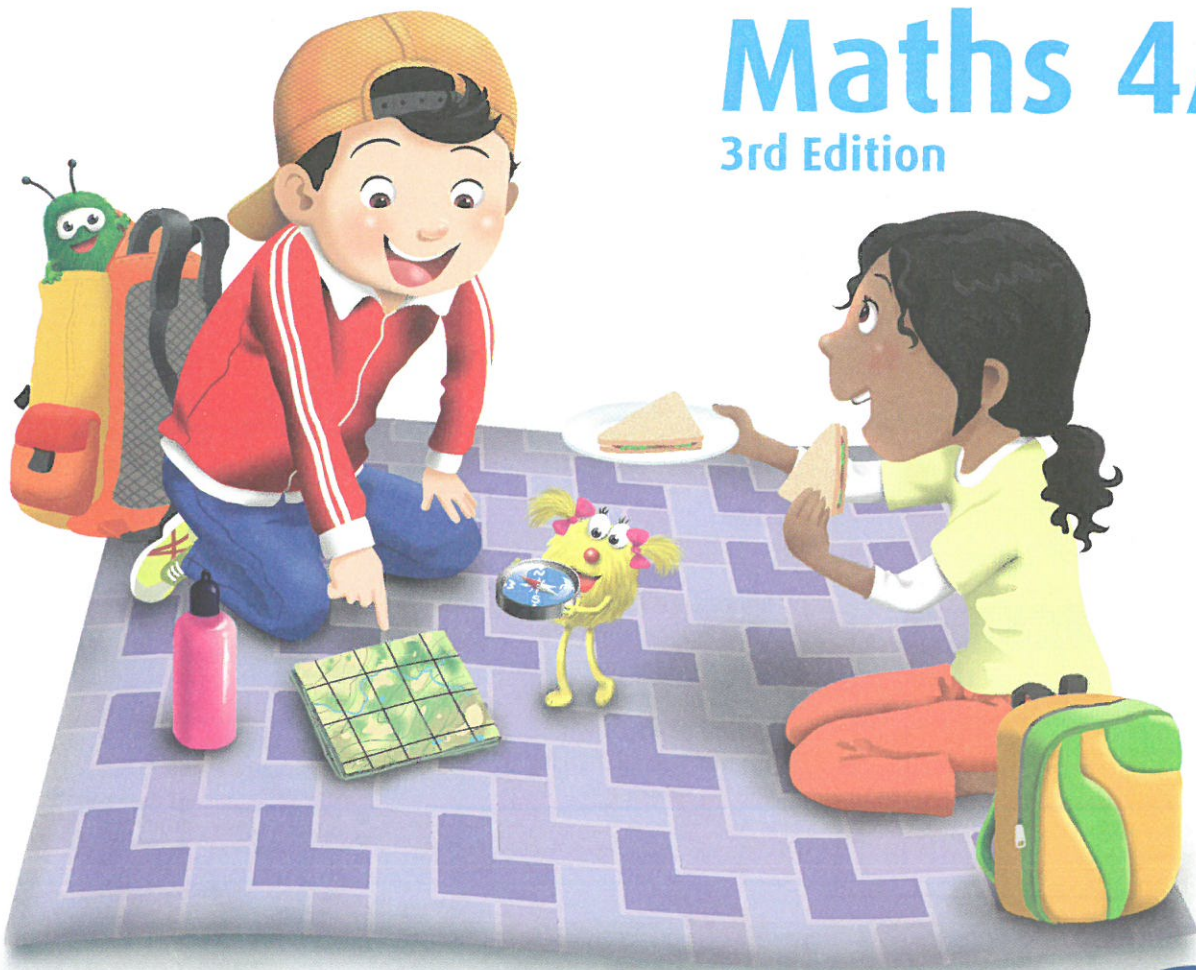


# Pupil's Book

# MY PALS ARE HERE!

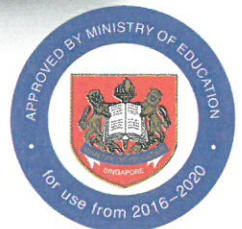
## Maths 4A

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**mc** Marshall Cavendish  
Education







## For the Teacher:

**CHAPTER 1** Numbers to 100 000

**FIFA World Cup Finals Venue**

Year	Country	Stadium	Seating Capacity
2014	Brazil	Moracanã	71 159
2010	South Africa	Soccer City	94 736
2006	Germany	Olympiastadion	74 475
2002	Korea and Japan	Nissan Stadium	72 327
1998	France	Stade de France	81 338

This is the Singapore National Stadium.  
41 830 people attended the match last week.

How can you estimate the seating capacity of the Singapore National Stadium?

**Big Idea**  
Read, compare and order numbers according to the place values of their digits. Rounding is used in estimation.

**Lessons**

- 1 Numbers to 100 000
- 2 Comparing and Ordering Numbers
- 3 Number Patterns
- 4 Rounding and Estimation

## NEW!

Use scenarios pupils can relate to in the chapter openers to capture their interest, provide an engaging introduction to the topics and jump-start learning.

## NEW!

Introduce concepts through context-based tasks in **Before you learn**. At the end of each task, a question is posed to develop pupils' creative and critical thinking skills.

**Lesson 4** Rounding and Estimation

**Before you learn ...**

Julie needed 196 cm of cloth for her project. Should she buy 100 cm or 200 cm of cloth? Use  $\approx$  to show how Julie should decide.

**Round to the nearest ten**

1 Round 42 to the nearest ten.

42 is between 40 and 50. It is nearer to 40 than to 50.

42 is 40 when rounded to the nearest ten. 42 is approximately equal to 40.

" $\approx$ " stands for "approximately equal to".

2 A mobile phone weighs 157 g.

157 is between 150 and 160. It is nearer to 160 than to 150.

157 is 160 when rounded to the nearest ten grams. 157  $\approx$  160.

The mobile phone weighs 160 g when its mass is rounded to the nearest ten grams.

Lesson 4 Rounding and Estimation

Carry out **Hands-on Activity** to promote active and collaborative learning. Where possible, pupils will complete station-based activities in rotating groups to best utilise class time.

**Hands-on Activity**

Work in pairs.

**Station 1** Compare numbers.

1 Show 42 900 and 43 200 using  $\cdot$  to your partner.

**Example**

42 900      43 200

2 Your partner fills up a number line to compare the numbers and says which number is greater or smaller.

**Example**

42 900      43 200

42 800    42 900    43 000    43 100    43 200    43 300

42 900 is smaller than 43 200.  
43 200 is greater than 42 900.

3 Switch roles. Repeat 1 and 2 with these numbers.

a 47 500 and 47 900      b 56 130 and 56 480  
c 69 800 and 70 200      d 89 750 and 90 360

Lesson 2 Comparing and Ordering Numbers

## NEW!

Assess understanding when pupils apply concepts learnt in **Review**.

**Chapter 3 Review**

1 Multiply.

a  $3000 \times 2 =$       b  $6000 \times 4 =$

2 Multiply.

a  $\begin{array}{r} 1132 \\ \times 2 \\ \hline \end{array}$       b  $\begin{array}{r} 2102 \\ \times 4 \\ \hline \end{array}$       c  $\begin{array}{r} 1078 \\ \times 3 \\ \hline \end{array}$

d  $\begin{array}{r} 7099 \\ \times 9 \\ \hline \end{array}$       e  $\begin{array}{r} 8007 \\ \times 5 \\ \hline \end{array}$       f  $\begin{array}{r} 3820 \\ \times 7 \\ \hline \end{array}$

3 Multiply.

a  $10 \times 50 =$       b  $40 \times 30 =$   
c  $20 \times 70 =$       d  $800 \times 30 =$

4 Multiply.

a  $\begin{array}{r} 37 \\ \times 20 \\ \hline \end{array}$       b  $\begin{array}{r} 51 \\ \times 18 \\ \hline \end{array}$       c  $\begin{array}{r} 96 \\ \times 25 \\ \hline \end{array}$

d  $\begin{array}{r} 200 \\ \times 35 \\ \hline \end{array}$       e  $\begin{array}{r} 983 \\ \times 16 \\ \hline \end{array}$       f  $\begin{array}{r} 906 \\ \times 88 \\ \hline \end{array}$

5 Estimate. Then, multiply.

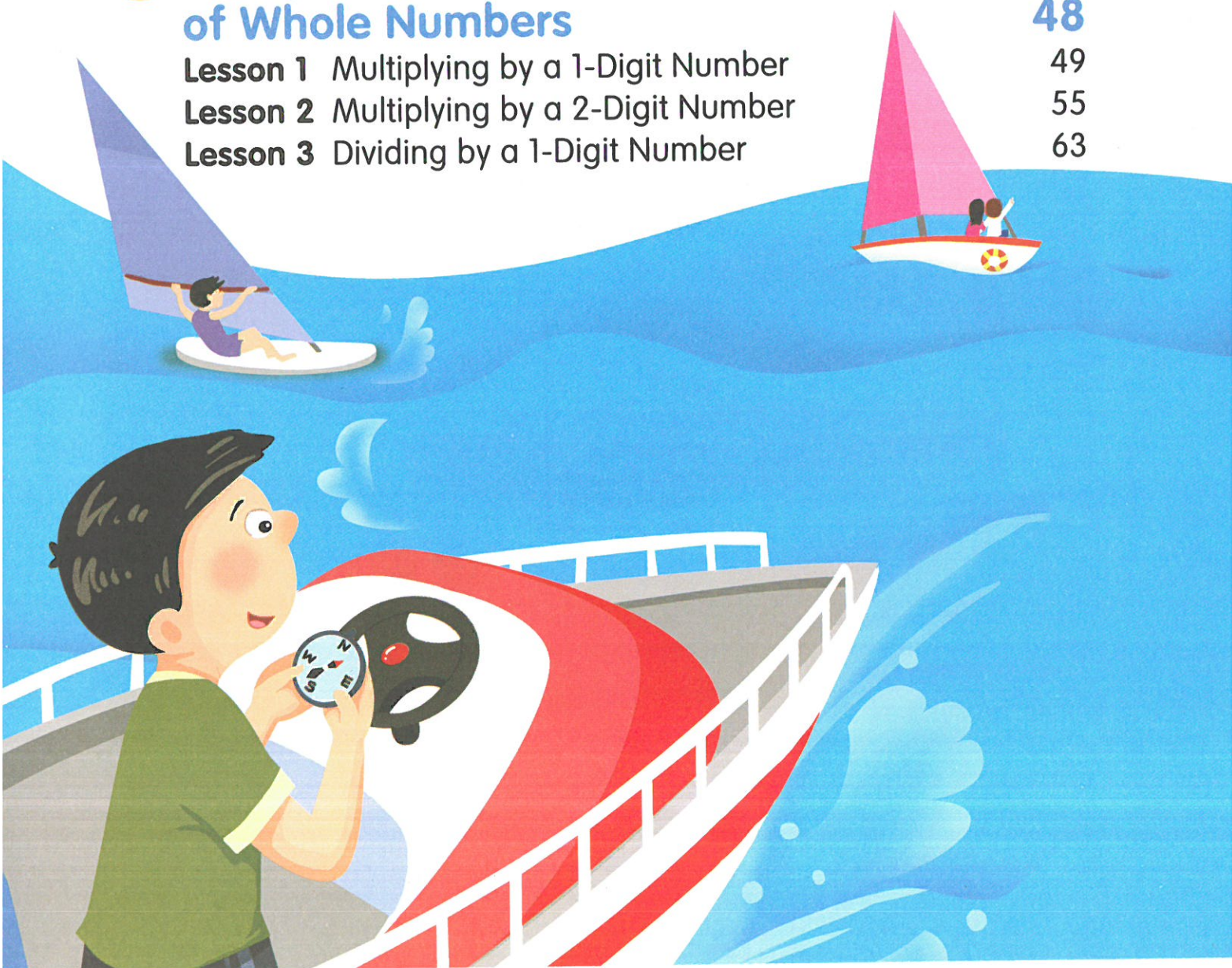
a  $75 \times 12 =$       b  $63 \times 71 =$   
c  $817 \times 37 =$       d  $52 \times 390 =$

Chapter 3 Multiplication and Division of Whole Numbers



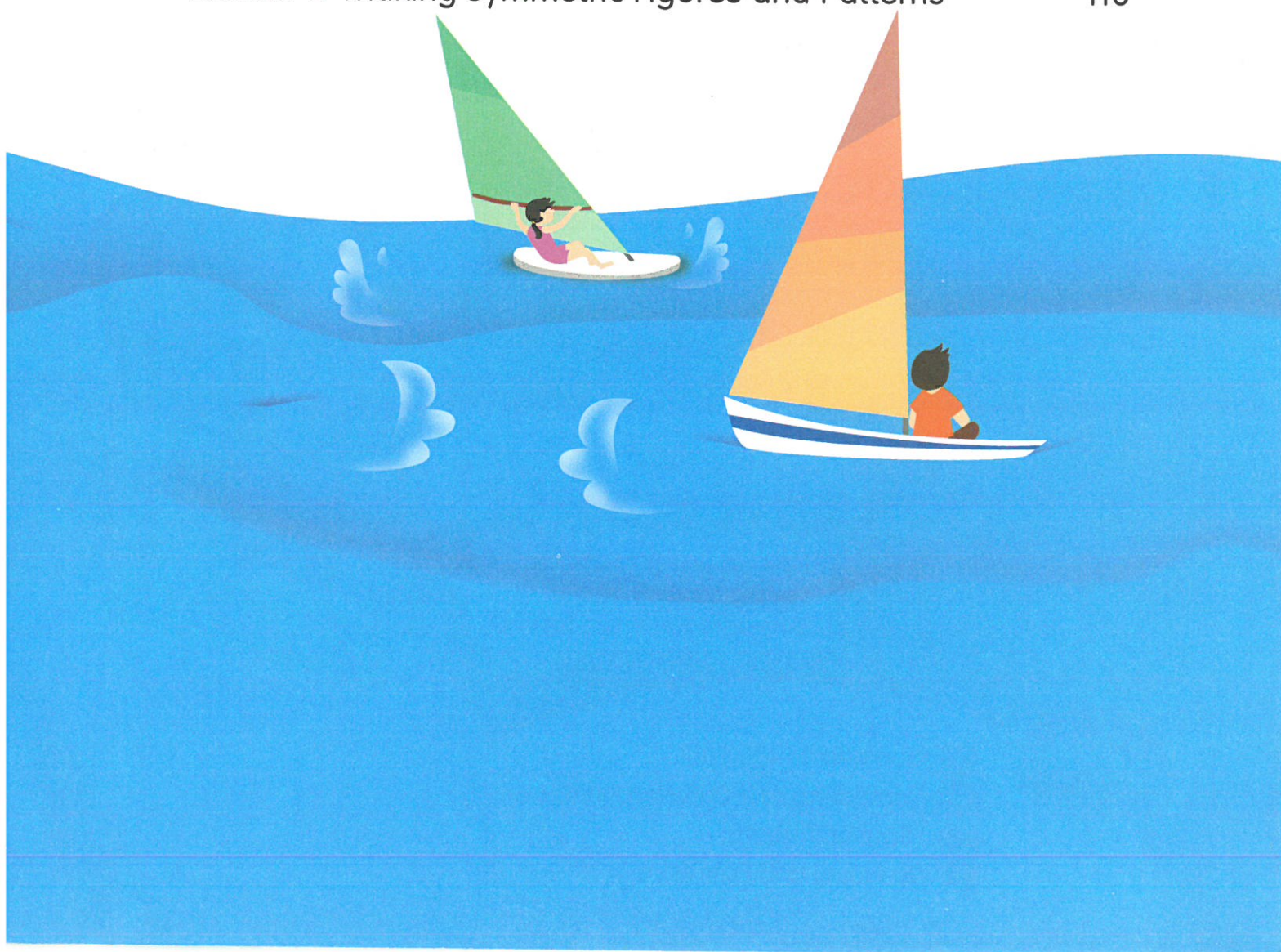
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# Numbers to 100 000

## FIFA World Cup Finals Venue

Year	Country	Stadium	Seating Capacity
2014	Brazil	Maracanã	71 159
2010	South Africa	Soccer City	94 736
2006	Germany	Olympiastadion	74 475
2002	Korea and Japan	Nissan Stadium	72 327
1998	France	Stade de France	81 338

This is the Singapore National Stadium.  
41 850 people attended the match last week.

How can you estimate the seating capacity of the Singapore National Stadium?

### Lessons

- 1 Numbers to 100 000
- 2 Comparing and Ordering Numbers
- 3 Number Patterns
- 4 Rounding and Estimation

### Big Idea

Read, compare and order numbers according to the place values of their digits. Rounding is used in estimation.








# Lesson 1

## Numbers to 100 000

### Reading and writing 5-digit numbers

#### Before you learn ...

There are 83 245 books in a library.

Use      to count aloud and show the number of books in the library.

#### Learn

#### Count in thousands



10 thousands = 1 ten thousand

Count on: 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10 000

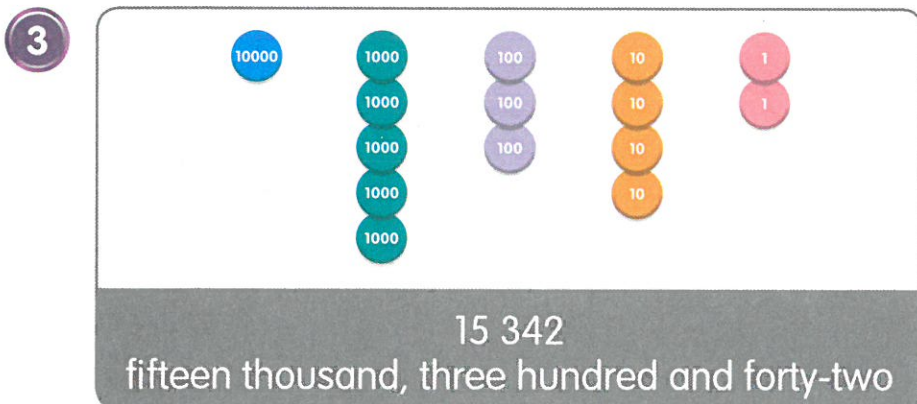
#### Count in ten thousands



10 ten thousands = 1 hundred thousand

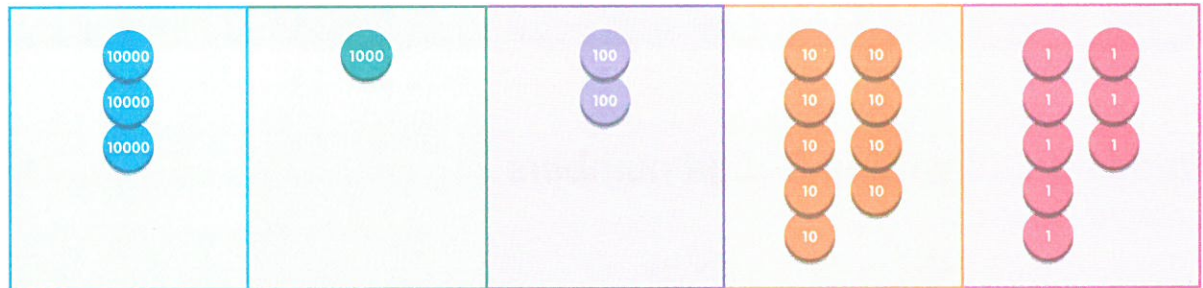
Count on: 10 000, 20 000, 30 000, 40 000, 50 000, 60 000, 70 000, 80 000, 90 000, 100 000

#### Count using

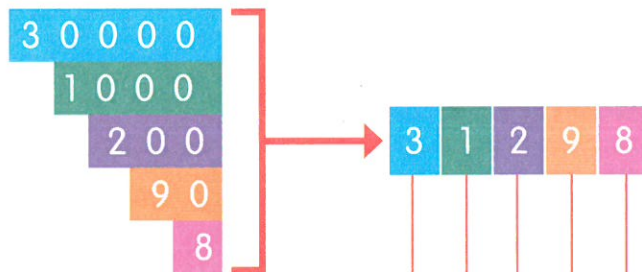


## Identify the place value and value of each digit in a 5-digit number

4



Ten Thousands	Thousands	Hundreds	Tens	Ones
3	1	2	9	8
stands for <b>3 ten thousands</b> 30 000	stands for <b>1 thousand</b> 1000	stands for <b>2 hundreds</b> 200	stands for <b>9 tens</b> 90	stands for <b>8 ones</b> 8



The digit 3 is in the ten thousands place.

The value of the digit 3 is 30 000.

The digit 1 is in the thousands place.

The value of the digit 1 is 1000.

The digit 2 is in the hundreds place.

The value of the digit 2 is 200.

The digit 9 is in the tens place.

The value of the digit 9 is 90.

The digit 8 is in the ones place.

The value of the digit 8 is 8.

$$31\,298 = 30\,000 + 1000 + 200 + 90 + 8$$

$$= (3 \times 10\,000) + (1 \times 1000) + (2 \times 100) + (9 \times 10) + (8 \times 1)$$





## Hands-on Activity

### Station 1 Show numbers.

Work in pairs.

- 1 Use to show these numbers to your partner. Your partner writes each number in numerals and in words.

a 30 458

b 37 106

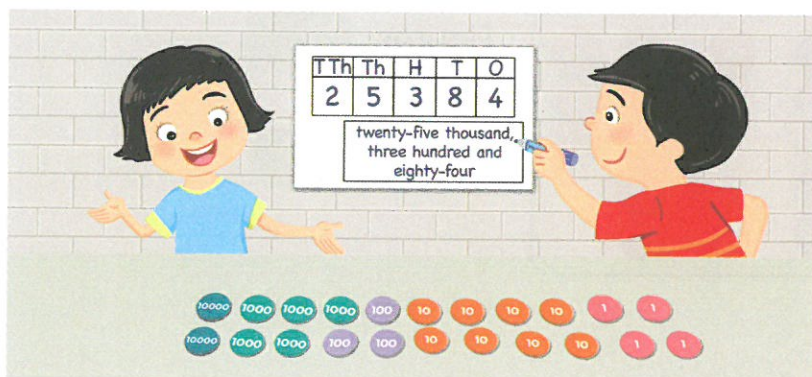
c 53 472

d 64 931

e 95 643

f 81 324

### Example

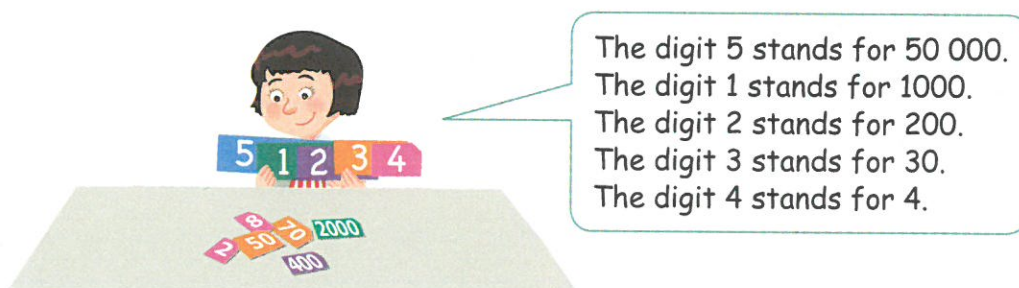


- 2 Write the value of the digit 3 in each of the numbers.

### Station 2 Say the values.

- 1 Show a 5-digit number using . Then, say the value of each digit.

### Example



- 2 Repeat 1 with these numbers.

a 34 572

b 16 087

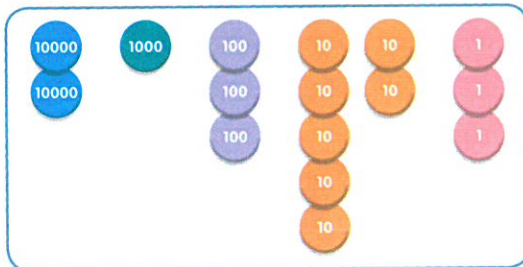
c 26 130

d 90 245



## Guided Practice

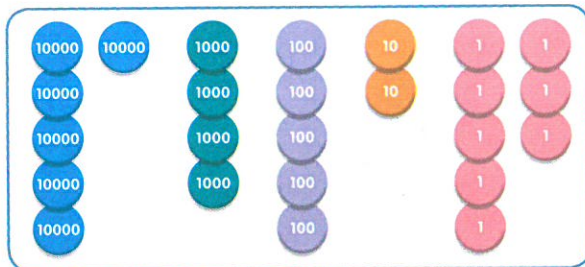
- 1 Write in numerals and in words.



Numerals:

Words:

- 2 Write in figures and in words.



Figures:

Words:

- 3 Write in figures.

- a ten thousand, seven hundred and thirty-two
- b fifty-two thousand and one hundred
- c eighty thousand, four hundred and one

- 4 Write in words.

- a 47 048
- b 90 105
- c 86 030



5 What are the missing numbers?

- a In 20 974, the digit in the thousands place is .
- b In 42 653, the digit  is in the ten thousands place.
- c In 63 971, the value of the digit 6 is .
- d In 56 301, the value of the digit 3 is .
- e In 70 569, the digit 7 stands for .
- f In 81 465, the digit 1 stands for .

6 What does the digit 5 stand for in each number?

- a 27 058
- b 85 027
- c 52 708

7 What is the value of each digit in each number?

- a 69 417
- b 58 085

8 What are the missing numbers?

- a  $76\,424 = 7 \text{ ten thousands} + 6 \text{ thousands} + \text{  hundreds} + 2 \text{ tens} + 4 \text{ ones}$
- b  $1 \text{ ten thousand} + \text{  thousands} + 2 \text{ hundreds} + 9 \text{ tens} + 4 \text{ ones} = 18\,294$
- c  $50\,328 = 50\,000 + 300 + \text{  } + 8$
- d  $\text{  } + 7000 + 90 + 3 = 47\,093$
- e  $37\,645 = 37\,000 + \text{  }$
- f  $\text{  } + 801 = 69\,801$

Workbook A:  
Practice 1,  
pages 5–6

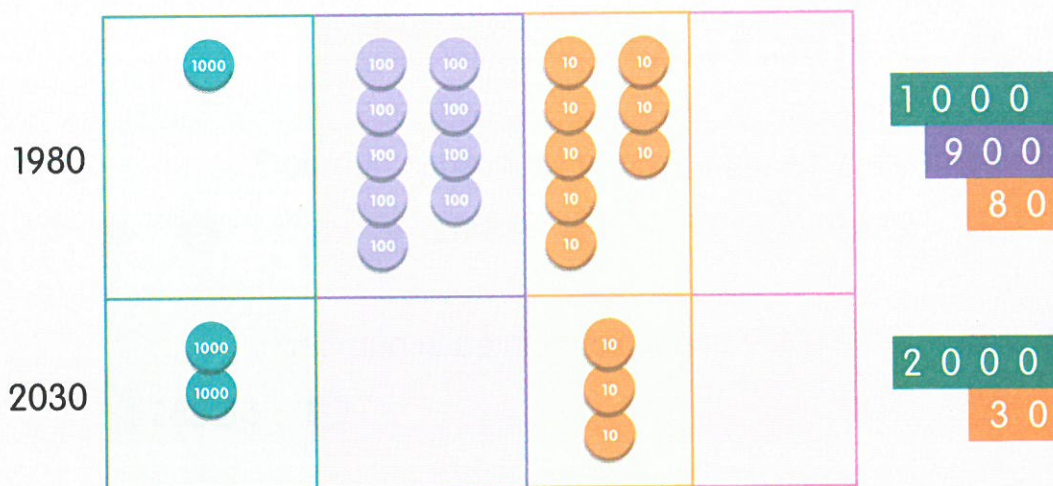


## Comparing and Ordering Numbers

## Recall

1 Compare 1980 and 2030.

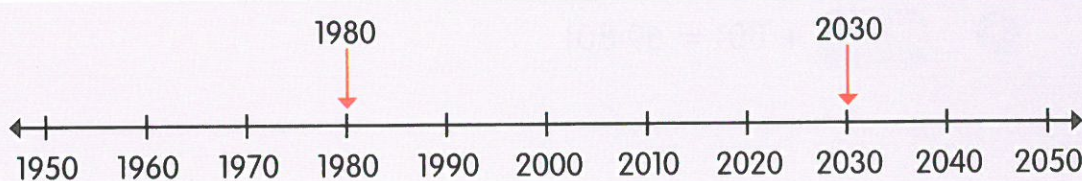
Method  
1



Thousands	Hundreds	Tens	Ones
1	9	8	0
2	0	3	0

Compare the thousands.  
2 thousands is greater than 1 thousand.

Method  
2



So, 2030 is greater than 1980.



- 2 Arrange 9765, 9248 and 9257 from smallest to greatest.

	Thousands	Hundreds	Tens	Ones
9765	9	7	6	5
9248	9	2	4	8
9257	9	2	5	7

step  
1

Compare the thousands.  
The digits are the same.

step  
2

Compare the hundreds.  
**7** hundreds is greater than **2** hundreds.  
So, 9765 is the greatest.

step  
3






Compare the tens.  
**4** tens is smaller than **5** tens.  
9248 is smaller than 9257.  
So, 9248 is the smallest.

From smallest to greatest, the numbers are 9248, 9257, 9765.

## Comparing and ordering 5-digit numbers

**Before you learn ...**

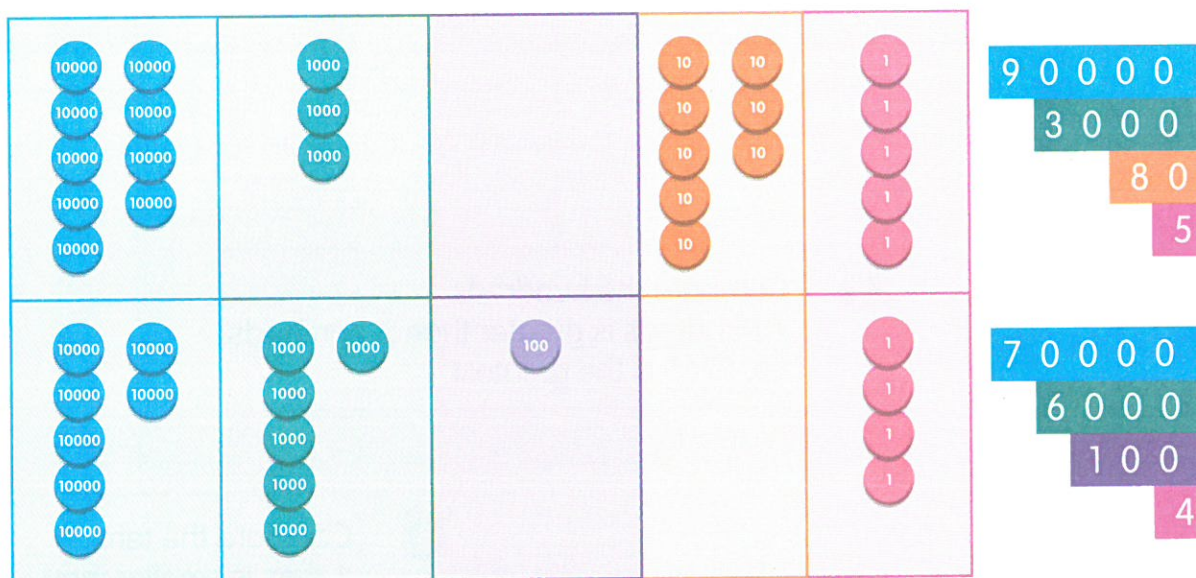
9849 apples and 10 062 oranges were sold in a week at a supermarket.

Use      to explain if more apples or oranges were sold.

**Learn**

### Compare 5-digit numbers

**1** Which is greater, 93 085 or 76 104?



Ten Thousands	Thousands	Hundreds	Tens	Ones
9	3	0	8	5
7	6	1	0	4

Compare the ten thousands.

**9** ten thousands is greater than **7** ten thousands.

So, 93 085 is greater than 76 104.



- 2 Which is smaller, 37 000 or 37 460? How much less?

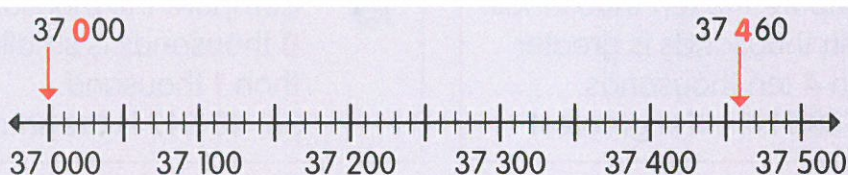
Method 1

Ten Thousands	Thousands	Hundreds	Tens	Ones
3	7	0	0	0
3	7	4	6	0

The ten thousands and thousands are the same.

Compare the hundreds.  
0 hundreds is smaller than 4 hundreds.

Method 2



So, 37 000 is smaller than 37 460.  
37 000 is 460 less than 37 460.

## Order 5-digit numbers

- 3 Arrange 62 357, 29 638 and 28 986 from greatest to smallest.

Ten Thousands	Thousands	Hundreds	Tens	Ones
6	2	3	5	7
2	9	6	3	8
2	8	9	8	6

Step 1

Compare the ten thousands.  
6 ten thousands is greater than 2 ten thousands.  
So, 62 357 is the greatest.

Step 2

Compare the thousands.  
8 thousands is smaller than 9 thousands.  
So, 28 986 is the smallest.

From greatest to smallest, the numbers are 62 357, 29 638, 28 986.

- 4 Arrange 68 724, 40 642 and 41 246 in decreasing order.

Ten Thousands	Thousands	Hundreds	Tens	Ones
6	8	7	2	4
4	0	6	4	2
4	1	2	4	6

**Step 1** Compare the ten thousands.  
**6** ten thousands is greater than **4** ten thousands.  
 So, 68 724 is the greatest.

**Step 2** Compare the thousands.  
**0** thousands is smaller than **1** thousand.  
 So, 40 642 is the smallest.

In decreasing order, the numbers are 68 724, 41 246, 40 642.

- 5 Arrange 87 613, 72 359 and 72 935 in increasing order.

Ten Thousands	Thousands	Hundreds	Tens	Ones
8	7	6	1	3
7	2	3	5	9
7	2	9	3	5

**Step 1** Compare the ten thousands.  
**8** ten thousands is greater than **7** ten thousands.  
 So, 87 613 is the greatest.

**Step 2** Compare the thousands.  
 The digits are the same.

**Step 3** Compare the hundreds.  
**3** hundreds is smaller than **9** hundreds.  
 So, 72 359 is the smallest.

In increasing order, the numbers are 72 359, 72 935, 87 613.





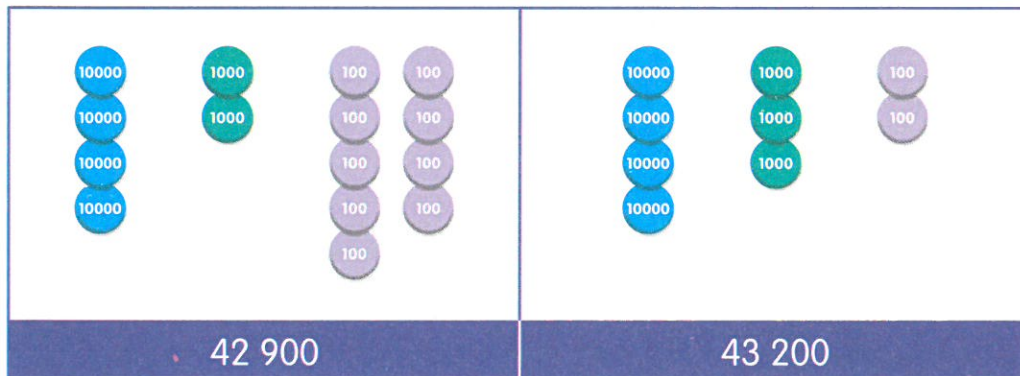
## Hands-on Activity

Work in pairs.

### Station 1 Compare numbers.

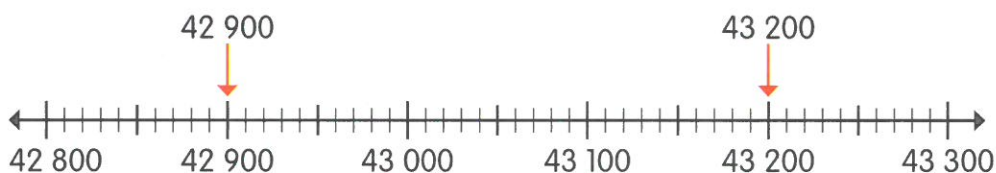
- 1 Show 42 900 and 43 200 using 10000, 1000, 100, 10, 1 to your partner.

#### Example



- 2 Your partner fills up a number line to compare the numbers and says which number is greater or smaller.

#### Example



42 900 is smaller than 43 200.

43 200 is greater than 42 900.

- 3 Switch roles. Repeat 1 and 2 with these numbers.


a 47 500 and 47 900

b 56 130 and 56 480

c 69 800 and 70 200

d 89 750 and 90 360

## Station 2 Compare and order numbers.

- 1 Show these three numbers using .

a 50 627

b 50 716

c 50 267

- 2 Describe the numbers using **greater than**, **smaller than**, **greatest**, **smallest** or **the same as**.

- 3 Arrange the numbers in decreasing order.

- 4 Repeat 1 to 3 with these numbers.

a 76 010, 70 685, 74 608      b 14 325, 13 945, 14 852

### Guided Practice

- 1 Which is greater?

a 90 847 or 69 948

b 64 515 or 65 500

- 2 Which is smaller?

a 42 100 or 41 002

b 16 935 or 16 918

- 3 Which is greater? How much more?

31 256 or 31 000

- 4 Which number is the greatest?

54 204

53 420

54 412

53 432

- 5 Which number is the smallest?

40 123

41 032

41 302

40 213

- 6 Arrange the following numbers in increasing order.

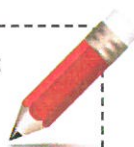
a 9456, 73 842, 30 512

b 41 325, 31 425, 51 324, 14 325

c 27 084, 20 784, 27 840, 20 874

- 7 What is the smallest 5-digit odd number that can be formed using 9, 2, 0, 4 and 7?

Workbook A:  
Practice 2,  
pages 7–8





## Recall

1 Complete the number patterns.

a

+ 10   + 10   + 10   + 10   + 10   + 10   + 10

1700, 1710, 1720, 1730, ? , 1750, ? , 1770

What is 10 more than 1730? — 1740

1760 — What is 10 more than 1750?

b

− 100   − 100   − 100   − 100   − 100   − 100   − 100

3445, 3345, 3245, 3145, ? , 2945, ? , 2745

What is 100 less than 3145? — 3045

2845 — What is 100 less than 2945?

c

+ 1000   + 1000   + 1000   + 1000   + 1000   + 1000   + 1000

796, 1796, 2796, ? , 4796, 5796, ? , 7796

What is 1000 more than 2796? — 3796

6796 — What is 1000 more than 5796?

## Finding missing numbers in a number pattern

### Before you learn ...

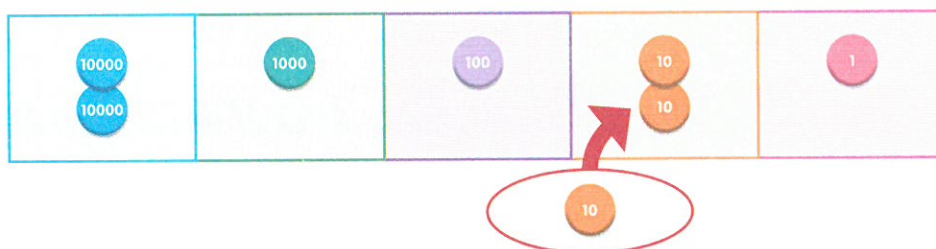
Look at the number pattern.

27 427, 28 427, 29 427, 30 427, ?, ?

Explain how to find the next two numbers.

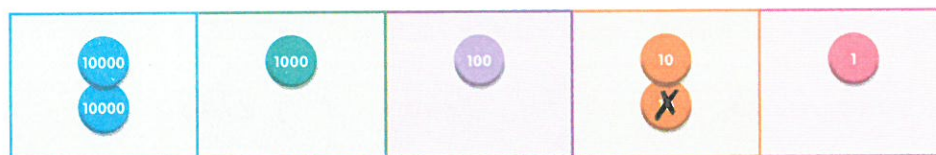
### Learn

- 1 What is 10 more than 21 121?



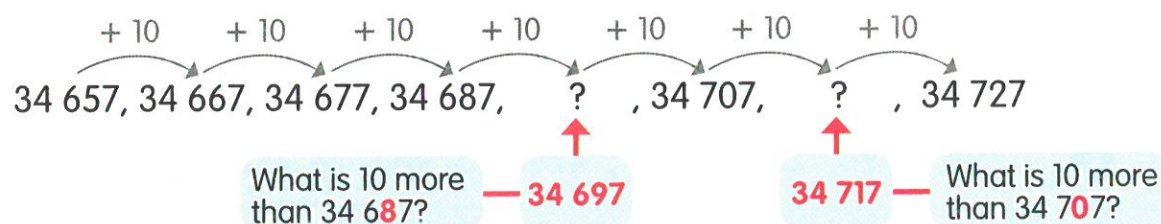
10 more than 21 **1**21 is 21 **1**31.

- 2 What is 10 less than 21 121?

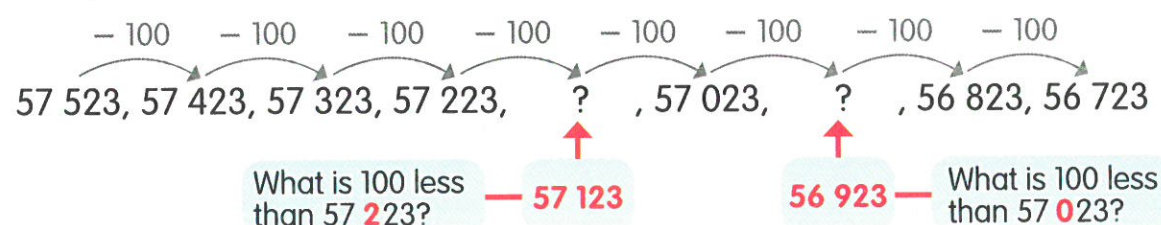


10 less than 21 **1**21 is 21 **1**11.

- 3 Complete the number pattern.

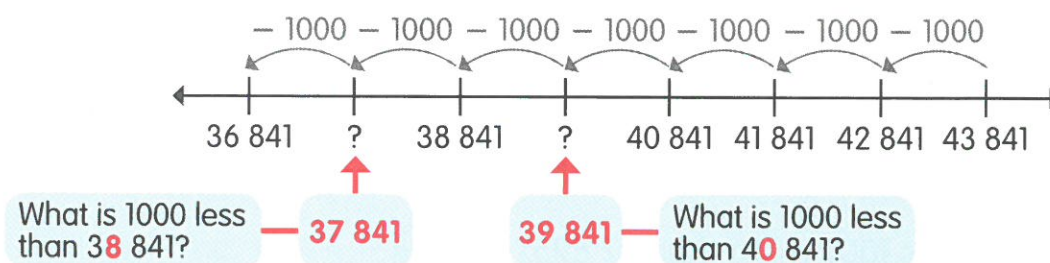


- 4 Complete the number pattern.





- 5 Complete the number pattern.



### Hands-on Activity

Show 10, 100, 1000 more than or less than a 5-digit number.

Work in pairs.

- 1 Roll the to make a 5-digit number smaller than 90 000.

Use to show the number.

- 2 Your partner uses to show his/her answers to the following questions.

- |                             |                             |
|-----------------------------|-----------------------------|
| a 10 more than the number   | b 10 less than the number   |
| c 100 more than the number  | d 100 less than the number  |
| e 1000 more than the number | f 1000 less than the number |

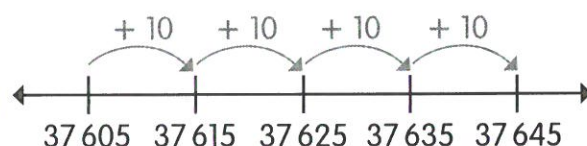


- 3 Switch roles. Repeat 1 and 2.

App-tivity @ [www.mceducation.com/sgstudent/mapp4](http://www.mceducation.com/sgstudent/mapp4)



## Guided Practice



- 1
- What is 10 more than 37 625?
  - What is 100 more than 37 625?
  - What is 1000 more than 37 625?

- 2
- What is 10 less than 20 840?
  - What is 100 less than 20 840?
  - What is 1000 less than 20 840?

- 3
- What is 100 more than 23 155?
  - What is 1000 less than 61 867?
  - 10 less than 86 372 is .
  - 1000 more than 19 503 is .
  - 60 383 is  more than 60 373.
  - 49 161 is 100 less than .

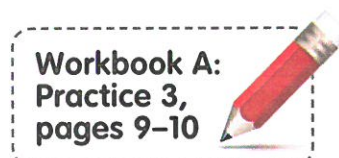
- 4 Complete the number patterns.
- 43 506, 43 516, 43 526, 43 536, , 43 556
  - 12 985, 12 885, , 12 685, 12 585, 12 485, 12 385
  - 66 935, 67 935, 68 935, 69 935, , 71 935



## Maths Sharing

Describe number patterns.

24 537, 25 537, 26 537, 27 537, 28 537  
Describe the pattern and find the next three numbers.




Workbook A:  
Practice 3,  
pages 9-10



## Rounding and Estimation

## Rounding to the nearest ten, hundred and thousand

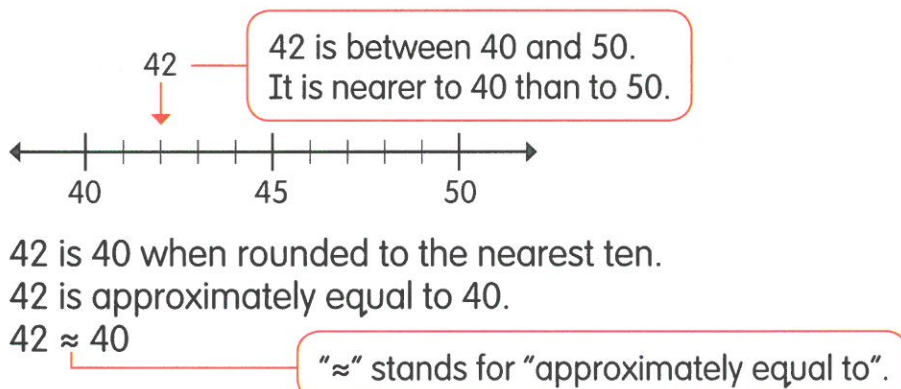
## Before you learn ...

Julie needed 196 cm of cloth for her project.  
Should she buy 100 cm or 200 cm of cloth?  
Use  to show how Julie should decide.

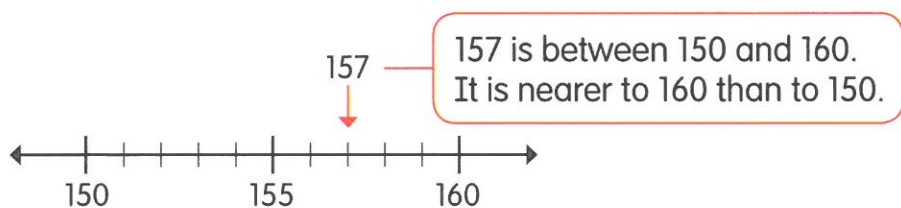
## Learn

## Round to the nearest ten

- 1 Round 42 to the nearest ten.



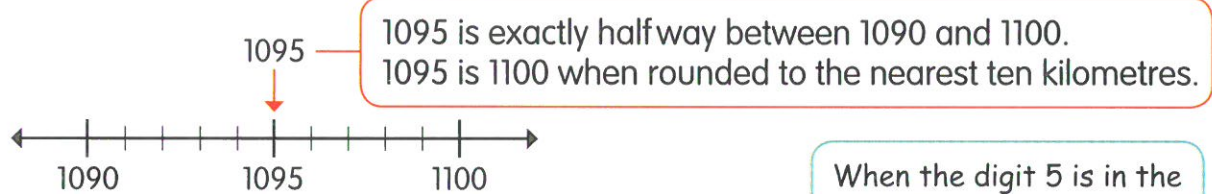
- 2 A mobile phone weighs 157 g.



157 is 160 when rounded to the nearest ten grams.  
 $157 \approx 160$

The mobile phone weighs 160 g when its mass is rounded to the nearest ten grams.

- 3 A plane covered a distance of 1095 km.



$$1095 \approx 1100$$

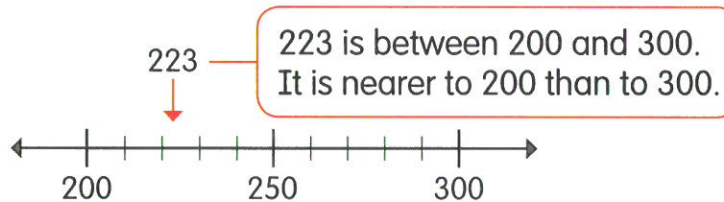
The distance covered by the plane is 1100 km when rounded to the nearest ten kilometres.

When the digit 5 is in the ones place, we round up.



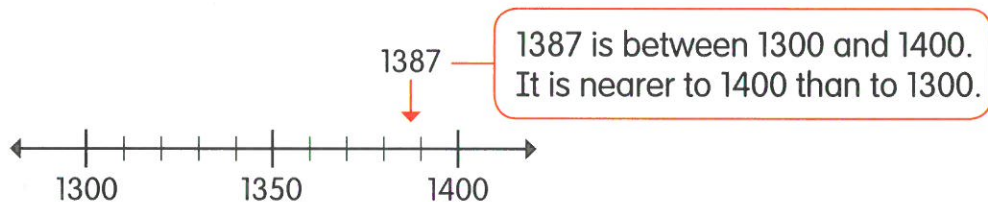
### Round to the nearest hundred

- 4 Round 223 to the nearest hundred.



223 is 200 when rounded to the nearest hundred.  
 $223 \approx 200$

- 5 The volume of milk in a jar is 1387 ml.

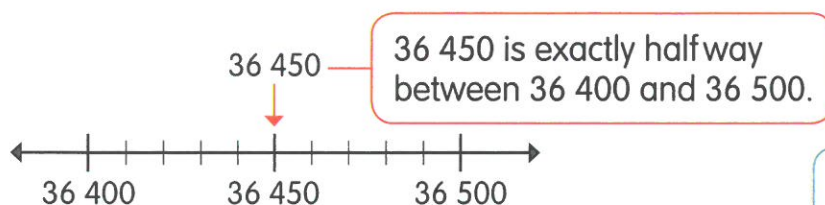


1387 is 1400 when rounded to the nearest hundred millilitres.  
 $1387 \approx 1400$

The volume of milk in the jar is 1400 ml when rounded to the nearest hundred millilitres.



- 6 The number of people at a concert was 36 450.



When the digit 5 is in the tens place, we round up.

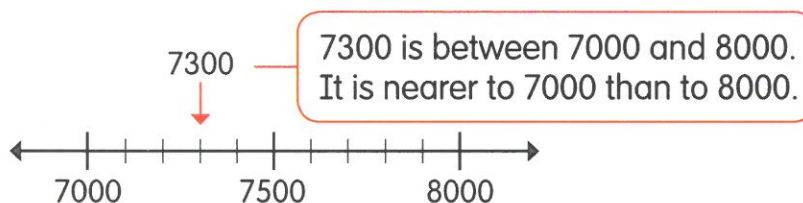
36 450 is 36 500 when rounded to the nearest hundred.  
 $36\,450 \approx 36\,500$

The number of people at the concert was 36 500 when rounded to the nearest hundred.



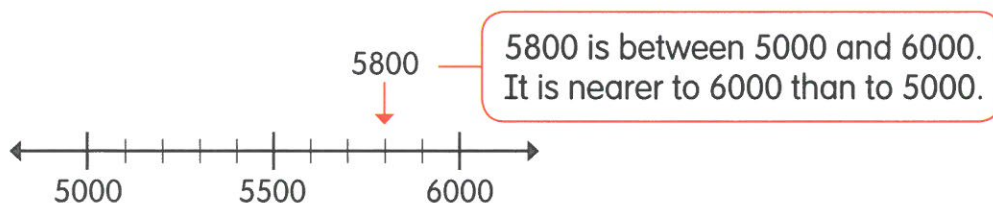
## Round to the nearest thousand

- 7 Round 7300 to the nearest thousand.



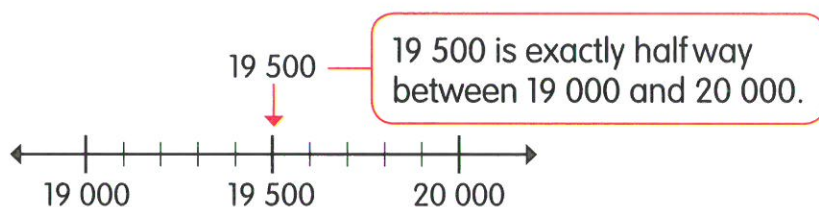
7300 is 7000 when rounded to the nearest thousand.  
 $7300 \approx 7000$

- 8 Round 5800 to the nearest thousand.



5800 is 6000 when rounded to the nearest thousand.  
 $5800 \approx 6000$

- 9 A charity raised \$19 500 in a donation drive.



When the digit 5 is in the hundreds place, we round up.



19 500 is 20 000 when rounded to the nearest thousand dollars.

$$19\,500 \approx 20\,000$$

The amount the charity raised is \$20 000 when rounded to the nearest thousand dollars.



### Hands-on Activity

Round to the nearest ten, hundred and thousand.

Work in pairs.

#### Station 1

Use .

- 1 Represent 501 on a number line.
- 2 Your partner rounds the number in 1 to the nearest ten, hundred and thousand.
- 3 Switch roles. Repeat 1 and 2 with these numbers.

a 725	b 857	c 998
d 2735	e 4017	f 6381



## Station 2

Look at the following table. Use the Internet to find the distances in kilometres between Singapore and these cities. Round each distance to the nearest ten kilometres, hundred kilometres and thousand kilometres. Then, complete the table.

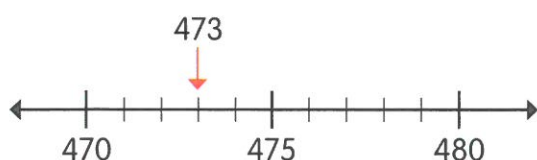
City	Distance in km	Rounded to the nearest ten km	Rounded to the nearest hundred km	Rounded to the nearest thousand km
Bangkok	1428			
Cairo				
Copenhagen				
Frankfurt				
Glasgow				
Jakarta				
Kuala Lumpur				
Manila				
Perth				
Toronto				



### Guided Practice

1

Round 473 to the nearest ten.



473 is between 470 and 480.

It is nearer to 470 than to 480.

473 is  when rounded to the nearest ten.

473  $\approx$

- 2 Round 2596 to the nearest hundred.



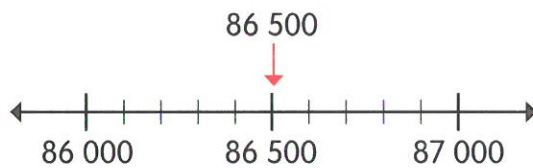
2596 is between 2500 and 2600.

It is nearer to 2600 than to 2500.

2596 is  when rounded to the nearest hundred.

2596  $\approx$

- 3 Round 86 500 to the nearest thousand.



86 500 is exactly half way between 86 000 and 87 000.

86 500 is  when rounded to the nearest thousand.

86 500  $\approx$

- 4 Round each of the following to the nearest ten litres.

a 31  $\ell$

b 85  $\ell$

c 995  $\ell$

- 5 Round each of the following to the nearest hundred metres.

a 125 m

b 996 m

c 5146 m

d 42 602 m

- 6 Round each of the following to the nearest thousand kilograms.

a 1234 kg

b 7503 kg

c 19 861 kg

d 91 360 kg

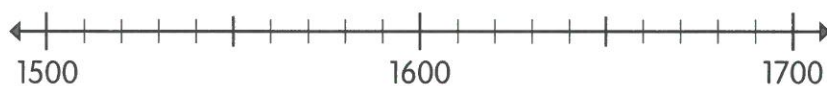


7 Complete the table.

Number	Rounded to the nearest		
	ten	hundred	thousand
a 68	<input type="text"/>	<input type="text"/>	
b 482	<input type="text"/>	<input type="text"/>	
c 869	<input type="text"/>	<input type="text"/>	<input type="text"/>
d 3259	<input type="text"/>	<input type="text"/>	<input type="text"/>
e 9745	<input type="text"/>	<input type="text"/>	<input type="text"/>
f 68 753	<input type="text"/>	<input type="text"/>	<input type="text"/>
g 85 799	<input type="text"/>	<input type="text"/>	<input type="text"/>

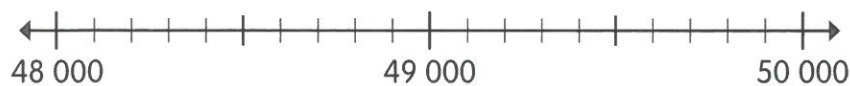
8 Find

- a the smallest number  b the greatest number   
that is 1600 when rounded to the nearest hundred.



9 Find

- a the smallest number  b the greatest number   
that is 49 000 when rounded to the nearest thousand.



Workbook A:  
Practice 4,  
pages 11–18



## Estimating sums and differences

### Before you learn ...

A stationery shop has 812 boxes of paper clips and 489 boxes of staples. Estimate the sum of 812 and 489 and their difference. Discuss your estimates with your classmates.

### Learn

#### Estimate sums

- 1 Estimate the value of  $84 + 47$ .  
Then, add.

$84 \approx 80$   
 $47 \approx 50$   
 $80 + 50 = 130$   
 $84 + 47 \approx 130$



$$84 + 47 = 131$$

The answer 131 is close to 130. Therefore, it is reasonable.

- 2 Add 112 and 93.  
Estimate to check if your answer is reasonable.

$112 \approx 100$   
 $93 \approx 100$   
 $100 + 100 = 200$   
 $112 + 93 \approx 200$



$112 \approx 110$   
 $93 \approx 90$   
 $110 + 90 = 200$   
 $112 + 93 \approx 200$

$$112 + 93 = 205$$

The answer 205 is close to 200. Therefore, it is reasonable.



- 3 Find the value of  $119 + 182$ . Estimate to check if your answer is reasonable.

$$\begin{aligned}119 &\approx 100 \\182 &\approx 200 \\100 + 200 &= 300 \\119 + 182 &\approx 300\end{aligned}$$



$$\begin{aligned}119 &\approx 120 \\182 &\approx 180 \\120 + 180 &= 300 \\119 + 182 &\approx 300\end{aligned}$$

$$119 + 182 = 301$$

The answer 301 is close to 300. Therefore, it is reasonable.

### Estimate differences

- 4 Subtract 537 from 945. Estimate to check if your answer is reasonable.

$$\begin{aligned}945 &\approx 950 \\537 &\approx 540 \\950 - 540 &= 410 \\945 - 537 &\approx 410\end{aligned}$$



$$945 - 537 = 408$$

The answer 408 is close to 410. Therefore, it is reasonable.

- 5 Subtract 426 from 894. Estimate to check if your answer is reasonable.

$$\begin{aligned}894 &\approx 900 \\426 &\approx 400 \\900 - 400 &= 500 \\894 - 426 &\approx 500\end{aligned}$$



$$\begin{aligned}894 &\approx 890 \\426 &\approx 430 \\890 - 430 &= 460 \\894 - 426 &\approx 460\end{aligned}$$

$$894 - 426 = 468$$

The answer 468 is close to 460 and 500. Therefore, it is reasonable.

- 6 Find the value of  $1825 - 403 - 798$ .

$$\begin{aligned}1825 &\approx 2000 \\403 &\approx 400 \\798 &\approx 1000 \\2000 - 400 - 1000 &= 1600 - 1000 \\&= 600 \\1825 - 403 - 798 &\approx 600\end{aligned}$$



$$\begin{aligned}1825 - 403 - 798 &= 1422 - 798 \\&= 624\end{aligned}$$

The answer 624 is close to 600. Therefore, it is reasonable.

### Guided Practice

- 1 Estimate the value of each of the following. Then, find the answers.

a  $53 + 79 =$

b  $456 + 38 =$

c  $123 + 254 =$

d  $2918 + 104 =$

e  $3097 + 2865 =$

f  $98 - 25 =$

g  $859 - 63 =$

h  $681 - 203 =$

i  $1842 - 436 =$

j  $9176 - 4208 =$

k  $109 + 568 - 24 =$

l  $816 - 123 - 285 =$

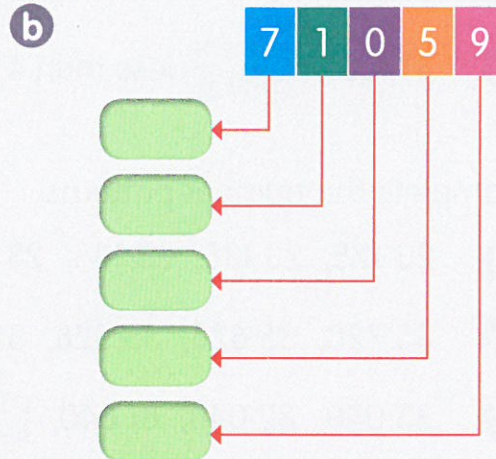
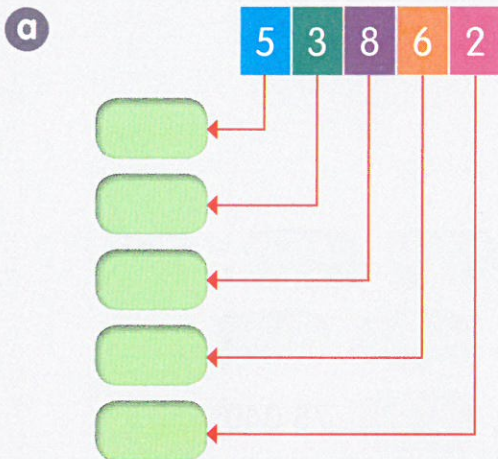
Is there more than one way to estimate?





## Chapter 1 Review

- 1 Write eighty thousand and five in numerals.
- 2 Write 99 215 in words.
- 3 What is the value of each digit?



- 4
  - a In 45 876, the value of the digit 5 is .
  - b In 12 083, the digit 1 stands for .
  - c In 67 210, the digit  stands for 200.
  - d In 39 813, the digit  is in the tens place.
- 5
  - a  + 6000 + 300 + 20 + 2 = 86 322
  - b 61 825 = 6 ten thousands + 1 thousand +  hundreds + 2 tens + 5 ones
  - c 97 461 = 97 000 +
- 6 Which is the smaller number?
  - a 19 580      10 875
  - b 56 410      65 140



- 7 Arrange the following numbers in decreasing order.

81 347, 18 437, 71 843

- 8
- a 10 more than 34 567 is .
  - b 100 more than 56 877 is .
  - c 1000 less than 20 135 is .
  - d 41 186 is  less than 41 196.

- 9 Complete the number patterns.

- a 23 125, 23 135, 23 145, 23 155, ,
- b 35 728, 35 628, 35 528, 35 428, ,
- c 83 040, 82 040, 81 040, , , 78 040

- 10 Round each number to the nearest ten.

- a 67
- b 124
- c 991
- d 3095

- 11 Round each number to the nearest hundred.

- a 79
- b 317
- c 8949
- d 70 951

- 12 Round each number to the nearest thousand.

- a 876
- b 2316
- c 2589
- d 64 721

Workbook A:  
Chapter 1 Review, pages 19–21  
Maths Journal, page 22







## Put on Your Thinking Cap!

- 1 How many times does the digit 5 appear from 10 000 to 11 000?
- 2 Use the following clues to find the greatest 5-digit number.
  - All five digits are different.
  - None of the five digits are 1.
  - The digit in the ten thousands place is greater than 7.
  - The sum of all five digits is 18.
  - The greatest digit is equal to the sum of the other four digits.

Workbook A:  
Put on Your Thinking Cap!  
pages 23–24





# Factors and Multiples



## Lessons

- 1 Factors
- 2 Multiples

## Big Idea

Any whole number is a multiple of its factors.



## Finding the factors of a whole number

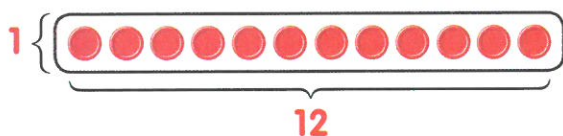
Before you learn ...

Take 16 . Put the  equally into groups.  
How many different ways can you do it?

Learn

## Express a number as a product of its factors

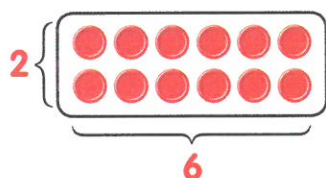
- 1 Express 12 as a product of two factors. Then, list all the factors of 12.



$$1 \times 12 = 12$$

12 is the product of 1 and 12.

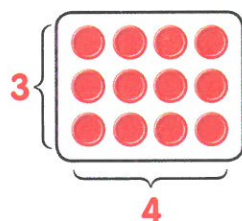
So, **1** and **12** are **factors** of 12.



$$2 \times 6 = 12$$

12 is the product of 2 and 6.

So, **2** and **6** are also factors of 12.



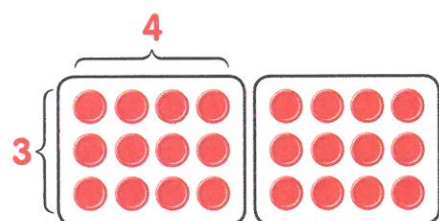
$$3 \times 4 = 12$$

12 is the product of 3 and 4.

So, **3** and **4** are factors of 12.

So, **1**, **2**, **3**, **4**, **6** and **12** are factors of 12.

- 2 Express 24 as a product of three factors.



$$2 \times 3 \times 4 = 24$$

24 is the product of 2, 3 and 4.

So, **2**, **3** and **4** are factors of 24.

## Use division to find the factors of a number

- 3 Are 2 and 3 factors of 14?

a

$$\begin{array}{r} 7 \\ 2 \overline{)14} \\ \underline{14} \\ 0 \end{array}$$

14 can be divided exactly by 2.  
So, 2 is a factor of 14.

The remainder is 0.  
So, 7 is also a factor of 14.



b

$$\begin{array}{r} 4 \\ 3 \overline{)14} \\ \underline{12} \\ 2 \end{array}$$

14 cannot be divided exactly by 3.  
So, 3 is not a factor of 14.

There is a remainder.  
Is 4 a factor of 14?



### Hands-on Activity

Find factors.

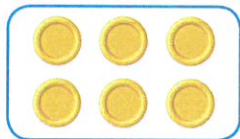
Work in pairs.

- 1 Take 6 and arrange them in rows and columns.
  - a Use multiplication equations to list the different ways.
  - b Then, write down all the factors of 6.

#### Example



$$1 \times 6 = 6$$



$$2 \times 3 = 6$$

The factors of 6  
are 1, 2, 3 and 6.



- 2 Your partner divides 6 by each of its factors in 1. What do you notice about the remainders?
- 3 Switch roles. Repeat 1 and 2 with these numbers.
  - a 10
  - b 16
  - c 27





## Guided Practice

- 1 What are the factors of 18?

$$18 = 1 \times 18$$

$$18 = 2 \times 9$$

$$18 = 3 \times 6$$

The factors of 18 are 1, 2, 3, ,  and 18.

- 2 List all the factors of 42.

$$42 = 1 \times 42$$

$$42 = 2 \times 21$$

$$42 = 3 \times 14$$

$$42 = 6 \times 7$$

The factors of 42 are 1, 2, 3, 6, , ,  and 42.

- 3 Find all the factors of each number.

a 15

b 28

c 56

d 100

- 4 Find the missing factors.

a  $20 = 5 \times$

b  $35 = 7 \times$

c  $32 = 8 \times$

d  $72 = 9 \times$

- 5 Which of the following have 5 as a factor?

a 10

b 21

c 37

d 55

## Finding the common factors of two whole numbers

### Before you learn ...

List all the factors of 18 and 30.  
What do you notice?

### Learn

#### List the common factors

- 1 List all the factors of 8 and 12.  
Then, find their common factors.

Factors of 8	1, 2, 4, 8
Factors of 12	1, 2, 3, 4, 6, 12
<b>Common factors</b> of 8 and 12	1, 2, 4

#### Check for common factors

- 2 Is 2 a common factor of 24 and 27?

a

$$\begin{array}{r} 12 \\ 2 \overline{) 24} \\ \underline{2} \phantom{0} \\ 4 \\ \underline{4} \\ 0 \end{array}$$

24 can be divided exactly by 2.  
2 is a factor of 24.

b

$$\begin{array}{r} 13 \\ 2 \overline{) 27} \\ \underline{2} \phantom{0} \\ 7 \\ \underline{6} \\ 1 \end{array}$$

There is a remainder.

27 cannot be divided exactly by 2.  
2 is not a factor of 27.

So, 2 is not a common factor of 24 and 27.





## Guided Practice

- 1 Find the common factors of 9 and 36.

$$9 = 1 \times 9$$

$$9 = 3 \times \boxed{\phantom{00}}$$

$$36 = 1 \times 36$$

$$36 = 2 \times \boxed{\phantom{00}}$$

$$36 = 3 \times \boxed{\phantom{00}}$$

$$36 = 4 \times \boxed{\phantom{00}}$$

$$36 = 6 \times \boxed{\phantom{00}}$$

The factors of 9 are 1,  $\boxed{\phantom{00}}$  and 9.

The factors of 36 are 1, 2, 3, 4,  $\boxed{\phantom{00}}$ ,  $\boxed{\phantom{00}}$ ,  $\boxed{\phantom{00}}$ ,  $\boxed{\phantom{00}}$  and 36.

The common factors of 9 and 36 are 1,  $\boxed{\phantom{00}}$  and  $\boxed{\phantom{00}}$ .

- 2 Find all the common factors of these pairs of numbers.

a 32 and 12  $\boxed{\phantom{00}}$

b 12 and 16  $\boxed{\phantom{00}}$

c 60 and 54  $\boxed{\phantom{00}}$

d 45 and 48  $\boxed{\phantom{00}}$

- 3 Which of the following pairs of numbers have 3 as a common factor?  $\boxed{\phantom{00}}$

a 21 and 25

b 18 and 24

c 51 and 63

d 49 and 52



## Maths Sharing

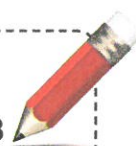
Simplify fractions.

Find a common factor of 9 and 12.

Then, find the simplest form of  $\frac{9}{12}$ .

- a What number can be used to divide the numerator and denominator of  $\frac{9}{12}$ ?  
b Discuss with your partner what you notice about the number used in a.

Workbook A:  
Practice 1,  
pages 25–28



# Lesson 2

## Multiples

### Finding the multiples of a whole number

**Before you learn ...**

Skip count in 2s.

Explain how each number is related to 2.

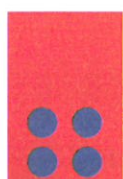
**Learn**

Use multiplication tables to find the multiples of a number

1



$$1 \times 2 = 2$$



$$2 \times 2 = 4$$



$$3 \times 2 = 6$$



$$4 \times 2 = 8$$

2, 4, 6 and 8 are the first 4 **multiples** of 2.

Is 2 a factor of all multiples of 2?



2

What are the first 8 multiples of 7?

1st multiple:  $1 \times 7 = 7$

2nd multiple:  $2 \times 7 = 14$

3rd multiple:  $3 \times 7 = 21$

4th multiple:  $4 \times 7 = 28$

5th multiple:  $5 \times 7 = 35$

6th multiple:  $6 \times 7 = 42$

7th multiple:  $7 \times 7 = 49$

8th multiple:  $8 \times 7 = 56$

The first 8 multiples of 7 are 7, 14, 21, 28, 35, 42, 49 and 56.

Can you list the next 4 multiples of 7?





## Use division to check for multiples

- 3** **a** Is 45 a multiple of 3?

$$\begin{array}{r} 15 \\ 3 \overline{)45} \\ \underline{3} \phantom{0} \\ 15 \\ \underline{15} \\ 0 \end{array}$$

45 can be divided exactly by 3.  
3 is a factor of 45.  
So, 45 is a multiple of 3.

- b** Is 81 a multiple of 6?

$$\begin{array}{r} 13 \\ 6 \overline{)81} \\ \underline{6} \phantom{0} \\ 21 \\ \underline{18} \\ 3 \end{array}$$

There is a remainder.

81 cannot be divided exactly by 6.  
6 is not a factor of 81.  
So, 81 is not a multiple of 6.



### Hands-on Activity

Relate factors and multiples to multiplication and division.

Work in pairs.

- 1** Use the following chart to skip count in 5s.  
Then, complete the table on the next page.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Number used to skip count	Numbers you land on
5	

- 2
  - a What do you notice about the numbers you land on?
  - b What do you notice about the number used to skip count?
- 3 Look at the numbers in 2.  
How can you relate the numbers in a to the number in b?
- 4 Switch roles. Repeat 1 to 3 with these numbers.
  - a 8
  - b 9



### Guided Practice

- 1 Find the next four multiples of 6.  
6, 12, 18, 24, 30, 36, 42, 48, , , ,
- 2 List the first five multiples of each of the following.
  - a 2
  - b 7
- 3
  - a Is 39 a multiple of 3? Why?
  - b Is 62 a multiple of 8? Why?
- 4
  - a List the first 12 multiples of 3.
  - b How can you tell if a number is a multiple of 3?



## Finding common multiples of two whole numbers

**Before you learn ...**

List the first ten multiples of 4 and 6.  
What do you notice?

**Learn**

### List the common multiples

- 1 List the multiples of 4 and 5.  
Then, find their common multiples.

Multiples of 4	4, 8, 12, 16, <b>20</b> , 24, 28, 32, 36, <b>40</b> , ...
Multiples of 5	5, 10, 15, <b>20</b> , 25, 30, 35, <b>40</b> , ...

The first **common multiple** of 4 and 5 is 20.  
The second common multiple of 4 and 5 is 40.

### Check for common multiples

- 2 Is 60 a common multiple of 3 and 8?

a

$$\begin{array}{r} 20 \\ 3 \overline{) 60} \\ \underline{6} \phantom{0} \\ 0 \phantom{0} \\ \underline{0} \phantom{0} \\ 0 \end{array}$$

60 can be divided exactly by 3.  
3 is a factor of 60.  
So, 60 is a multiple of 3.

b

$$\begin{array}{r} 7 \\ 8 \overline{) 60} \\ \underline{56} \phantom{0} \\ 4 \end{array}$$

There is a remainder.

60 cannot be divided exactly by 8.  
8 is not a factor of 60.  
So, 60 is not a multiple of 8.

So, 60 is **not** a common multiple of 3 and 8.



## Hands-on Activity

Find common multiples.

Work in pairs.

- 1 List the first 12 multiples of 4.
- 2 Your partner lists the first 12 multiples of 9.
- 3 Compare the lists in 1 and 2. What is the common multiple of 4 and 9?
- 4 Repeat 1 to 3 with the following pairs of numbers.
  - a 3 and 5
  - b 2 and 7



## Guided Practice

You can use a number line to help you.

- 1
  - a List the first six multiples of 4.
  - b List the first six multiples of 6.
  - c What are the common multiples of 4 and 6?
- 2 Find the first common multiple of these pairs of numbers.
  - a 3 and 4
  - b 5 and 6
  - c 7 and 8



## Maths Sharing

Use common multiples.

- 1 Find the first common multiple of 8 and 9.
- 2 Discuss with your partner how the answer in 1 is used to compare  $\frac{3}{8}$  and  $\frac{5}{9}$ .

Workbook A:  
Practice 2,  
pages 29–30





## Chapter 2 Review

- 1
  - a List all the factors of 16.
  - b List all the factors of 36.
  - c What are the common factors of 16 and 36?
- 2
  - a List the first ten multiples of 2.
  - b List the first ten multiples of 8.
  - c What are the common multiples of 2 and 8?

Workbook A:  
Chapter 2 Review, page 31  
Maths Journal, page 32



## Put on Your Thinking Cap!

- 1 Mrs Lim wrote a number on a card without showing the card to her class. She gave her class three clues to find the number.
  - The number can be divided exactly by 3.
  - When 3 is added to the number, it can be divided exactly by 5.
  - The number is smaller than 32 but greater than 23.What is the number?
- 2 When a number is divided by 6, the remainder is 2.  
When the same number is divided by 7, the remainder is 3.  
What is the smallest possible number?
- 3 Some of the factors of a number are 1, 2, 3 and 9. It has 6 factors.  
What is the number?

Workbook A:  
Put on Your Thinking Cap!  
pages 33–34  
Review 1, pages 35–38





# Multiplication and Division of Whole Numbers



**Travel Deals**  
 Paris from \$1028  
 Italy from \$1200  
 Frankfurt from \$999  
 London from \$1448



There are 4 of us going to London. How much will the tickets cost altogether?

How much is a ticket to Turkey?

**Couple Travel Deals**  
 Japan from \$788  
 Korea from \$1284  
 Turkey from \$2190  
 Hawaii from \$650

## Lessons

- 1 Multiplying by a 1-Digit Number
- 2 Multiplying by a 2-Digit Number
- 3 Dividing by a 1-Digit Number

## Big Idea

When carrying out multiplication or division, use estimation to check if the answer is reasonable.



# Lesson 1

## Multiplying by a 1-Digit Number

### Recall

- Adnan has 2 boxes of cookies.  
There are 14 cookies in each box.  
How many cookies are there in the 2 boxes?

Multiply 14 by 2 to find out.

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$$14 \times 2 = 28$$

There are 28 cookies in the 2 boxes.

28 is the product of 14 and 2.



- Multiply 222 by 7.

Step 1	Step 2	Step 3																																																
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$$222 \times 7 = 1554$$

## Multiplying by a 1-digit number

**Before you learn ...**

Lisa has 2350 stamps. Yani has 3 times as many stamps as Lisa.

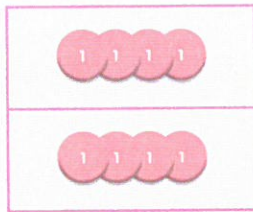
Use  to show how to find the total number of stamps Yani has.

**Learn**

## Multiply tens, hundreds and thousands by a 1-digit number

**1**

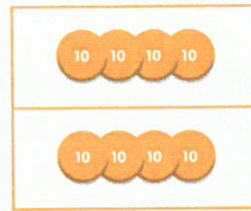
**a** What is  $4 \times 2$ ?



$$\begin{aligned} 4 \times 2 &= 4 \text{ ones} \times 2 \\ &= 8 \text{ ones} \\ &= 8 \end{aligned}$$

**b**

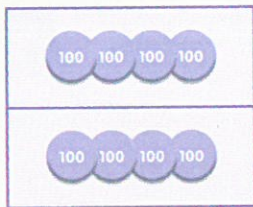
What is  $40 \times 2$ ?



$$\begin{aligned} 40 \times 2 &= 4 \text{ tens} \times 2 \\ &= 8 \text{ tens} \\ &= 80 \end{aligned}$$

**c**

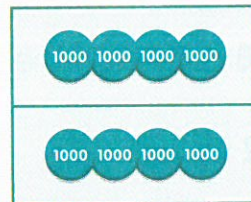
What is  $400 \times 2$ ?



$$\begin{aligned} 400 \times 2 &= 4 \text{ hundreds} \times 2 \\ &= 8 \text{ hundreds} \\ &= 800 \end{aligned}$$

**d**

What is  $4000 \times 2$ ?



$$\begin{aligned} 4000 \times 2 &= 4 \text{ thousands} \times 2 \\ &= 8 \text{ thousands} \\ &= 8000 \end{aligned}$$

Do you notice a pattern?

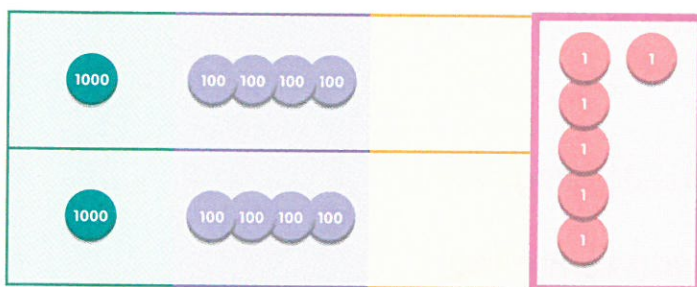




## Multiply by a 1-digit number without renaming

- 2 Mrs Ye buys 2 airplane tickets.  
Each airplane ticket costs \$1403.  
How much do the 2 airplane tickets cost altogether?

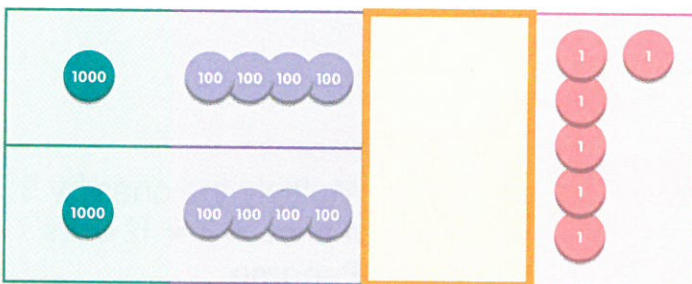
Multiply 1403 by 2 to find out.



### Step 1

Multiply the ones by 2.  
 $3 \text{ ones} \times 2 = 6 \text{ ones}$

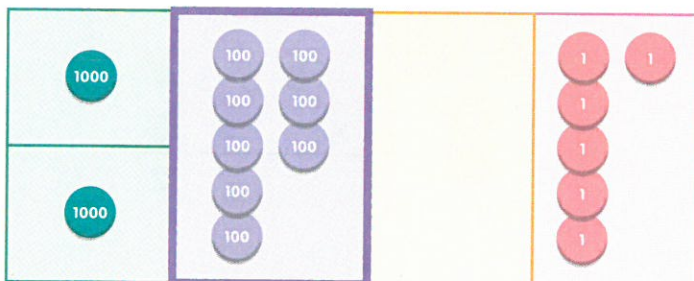
	1	4	0	3
×				2
				6



### Step 2

Multiply the tens by 2.  
 $0 \text{ tens} \times 2 = 0 \text{ tens}$

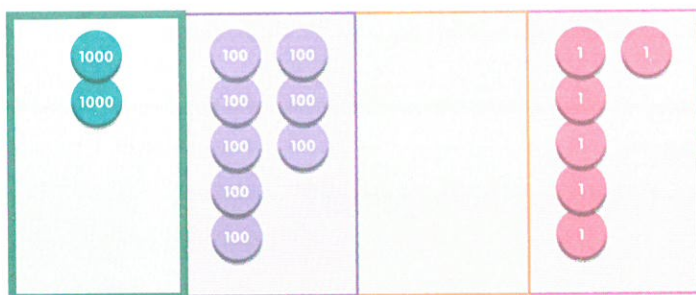
	1	4	0	3
×				2
			0	6



### Step 3

Multiply the hundreds by 2.  
 $4 \text{ hundreds} \times 2 = 8 \text{ hundreds}$

	1	4	0	3
×				2
		8	0	6



#### Step 4

Multiply the thousands by 2.  
1 thousand  $\times$  2 = 2 thousands

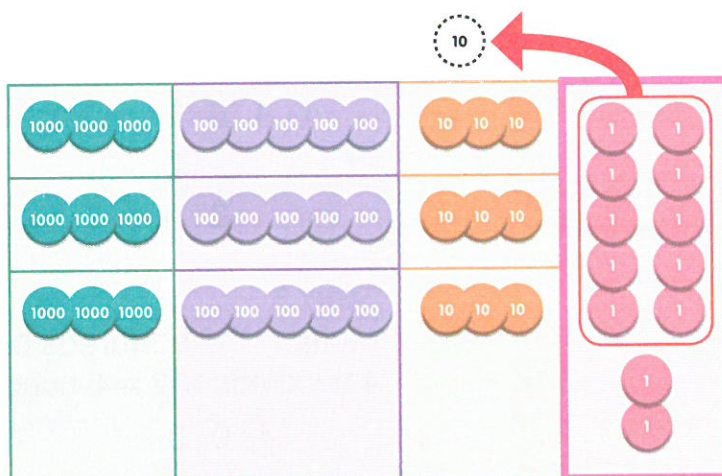
	1	4	0	3
$\times$				2
	2	8	0	6

$$\begin{aligned}
 1403 \times 2 &= (1000 \times 2) + (400 \times 2) + (3 \times 2) \\
 &= 2000 + 800 + 6 \\
 &= 2806
 \end{aligned}$$

The 2 airplane tickets cost \$2806 altogether.

### Multiply by a 1-digit number with renaming

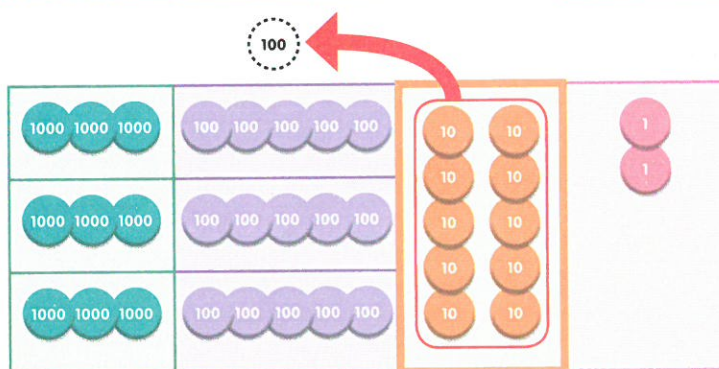
**3** Multiply 3534 by 3.



#### Step 1

Multiply the ones by 3.  
4 ones  $\times$  3 = 12 ones  
Rename.  
12 ones = 1 ten 2 ones

				1	4
	3	5	3		
$\times$					3
					2

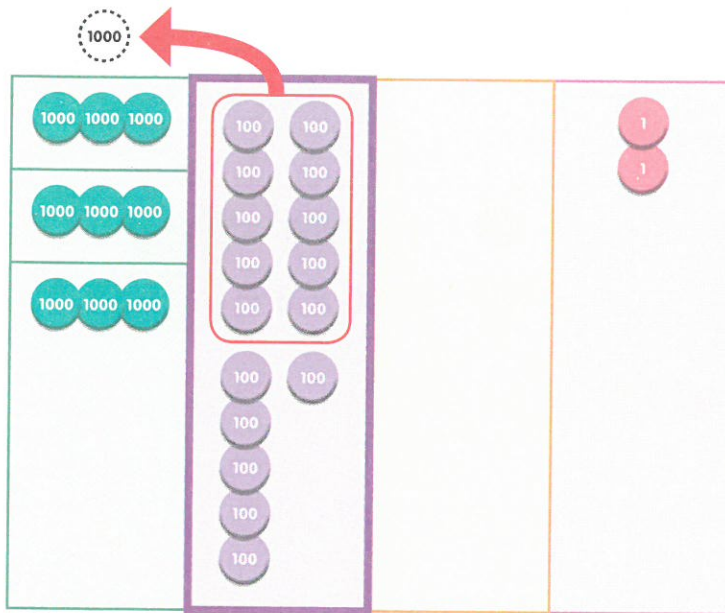


#### Step 2

Multiply the tens by 3.  
3 tens  $\times$  3 = 9 tens  
Add the tens.  
9 tens + 1 ten = 10 tens  
Rename.  
10 tens = 1 hundred

				1	1	4
	3	5	3			
$\times$						3
				0		2

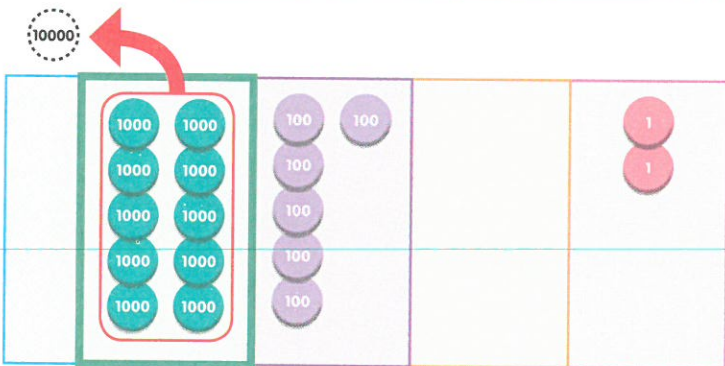




### Step 3

Multiply the hundreds by 3.  
 $5 \text{ hundreds} \times 3 = 15 \text{ hundreds}$   
 Add the hundreds.  
 $15 \text{ hundreds} + 1 \text{ hundred} = 16 \text{ hundreds}$   
 Rename.  
 $16 \text{ hundreds} = 1 \text{ thousand } 6 \text{ hundreds}$

	1	1	1	
	3	5	3	4
×				3
		6	0	2



### Step 4

Multiply the thousands by 3.  
 $3 \text{ thousands} \times 3 = 9 \text{ thousands}$   
 Add the thousands.  
 $9 \text{ thousands} + 1 \text{ thousand} = 10 \text{ thousands}$   
 Rename.  
 $10 \text{ thousands} = 1 \text{ ten thousand}$

	1	1	1	
	3	5	3	4
×				3
	1	0	6	0
				2

$$3534 \times 3 = 10\,602$$

$3534 \approx 4000$   
 $4000 \times 3 = 12\,000$   
 $3534 \times 3 \approx 12\,000$   
 $10\,602$  is close to  $12\,000$ .  
 So, the answer is reasonable.





## Guided Practice

1 Multiply.

a  $3 \times 2000 =$

b  $5 \times 1000 =$

c  $2000 \times 2 =$

d  $3000 \times 3 =$

2 Find the product of 1132 and 3.

$$\begin{array}{r} 1132 \\ \times \quad 3 \\ \hline \end{array}$$

The product of 1132 and 3 is .

3 Multiply 4576 by 8.

$$\begin{array}{r} 4576 \\ \times \quad 8 \\ \hline \end{array}$$

$4576 \times 8 =$

4 Multiply.

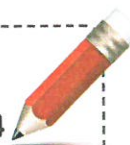
a  $2014 \times 2 =$

b  $3121 \times 3 =$

c  $3568 \times 9 =$

d  $8725 \times 8 =$

Workbook A:  
Practice 1,  
pages 39–44







# Multiplying by a 2-Digit Number

## Multiplying by tens

Before you learn ...

Count 2 . What number do you get?

Count 20 . What number do you get?

Do you notice a pattern?

Learn

1



$$1 \times 10 = 10$$



$$10 \times 10 = 100$$



$$100 \times 10 = 1000$$

2

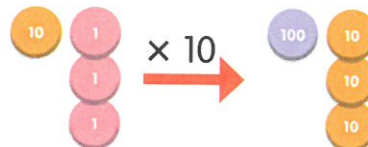
a What is  $2 \times 10$ ?



$$2 \times 10 = 20$$

b

What is  $13 \times 10$ ?



$$13 \times 10 = 130$$

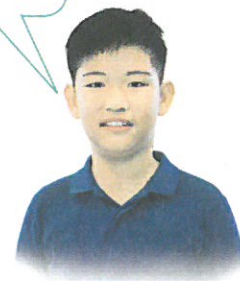
c

What is  $121 \times 10$ ?



$$121 \times 10 = 1210$$

Do you notice a pattern?



### 3 What is $3 \times 20$ ?

Method 1



$\times 10$



$$3 \times 10 = 30$$

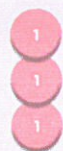
$\times 2$



$$30 \times 2 = 60$$

$$\begin{aligned} 3 \times 20 &= 3 \times 10 \times 2 \\ &= 30 \times 2 \\ &= 60 \end{aligned}$$

Method 2



$\times 2$



$$3 \times 2 = 6$$

$\times 10$



$$6 \times 10 = 60$$

$$\begin{aligned} 3 \times 20 &= 3 \times 2 \times 10 \\ &= 6 \times 10 \\ &= 60 \end{aligned}$$

Method 3



$\times 20$



$$\begin{array}{r} 20 \\ \times 3 \\ \hline 60 \end{array}$$

$$\begin{aligned} 3 \times 2 &= 6 \\ 3 \times 20 &= 60 \end{aligned}$$



### 4 What is $11 \times 20$ ?

Method 1



$\times 10$



$$11 \times 10 = 110$$

$\times 2$



$$110 \times 2 = 220$$

$$\begin{aligned} 11 \times 20 &= 11 \times 10 \times 2 \\ &= 110 \times 2 \\ &= 220 \end{aligned}$$

Method 2

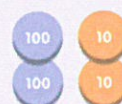


$\times 2$



$$11 \times 2 = 22$$

$\times 10$



$$22 \times 10 = 220$$

$$\begin{aligned} 11 \times 20 &= 11 \times 2 \times 10 \\ &= 22 \times 10 \\ &= 220 \end{aligned}$$

Method 3



$\times 20$



$$\begin{array}{r} 11 \\ \times 20 \\ \hline 220 \end{array}$$

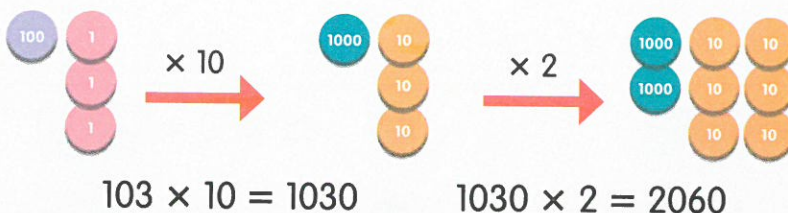
$$\begin{aligned} 11 \times 2 &= 22 \\ 11 \times 20 &= 220 \end{aligned}$$





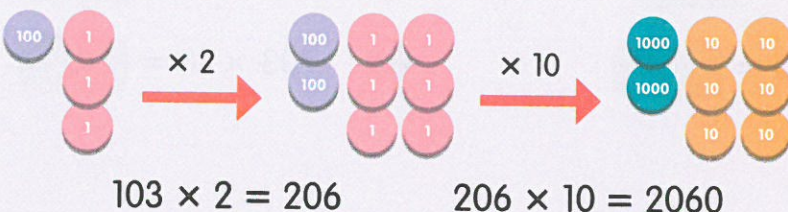
5 What is  $103 \times 20$ ?

Method 1



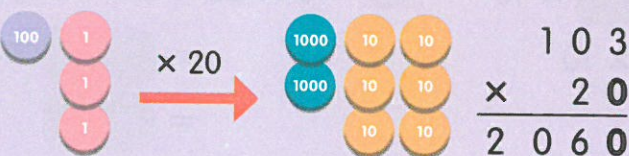
$$\begin{aligned} 103 \times 20 \\ &= 103 \times 10 \times 2 \\ &= 1030 \times 2 \\ &= 2060 \end{aligned}$$

Method 2



$$\begin{aligned} 103 \times 20 \\ &= 103 \times 2 \times 10 \\ &= 206 \times 10 \\ &= 2060 \end{aligned}$$

Method 3



$$\begin{array}{r} 103 \\ \times 20 \\ \hline 2060 \end{array}$$



## Hands-on Activity

Multiply by tens and multiples of ten.

Work in pairs.

- 1 Use to show and explain  $3 \times 10$ .
- 2 Your partner uses to show and explain  $3 \times 20$ .
- 3 Switch roles. Repeat 1 and 2 with the following.
  - a  $7 \times 10$  and  $7 \times 30$
  - b  $18 \times 10$  and  $18 \times 40$
  - c  $105 \times 10$  and  $105 \times 20$
  - d  $80 \times 10$  and  $80 \times 20$
  - e  $600 \times 10$  and  $600 \times 30$



## Guided Practice

1 Multiply.

a  $16 \times 10 =$

b  $89 \times 10 =$

c  $90 \times 10 =$

d  $175 \times 10 =$

e  $234 \times 10 =$

f  $703 \times 10 =$

2 Multiply.

a  $7 \times 30 = 7 \times$    $\times 10$   
 $=$    $\times 10$   
 $=$

b  $5 \times 20 = 5 \times 10 \times 2$   
 $=$    $\times 2$   
 $=$

c  $70 \times 30 =$

d  $50 \times 20 =$

e  $700 \times 30 =$

f  $500 \times 20 =$

g  $78 \times 60 =$

h  $94 \times 70 =$

i  $169 \times 20 =$

j  $512 \times 80 =$

3 Multiply.

a  $30 \times 20 =$   b  $47 \times 50 =$   c  $575 \times 70 =$

4 Find the product of each pair of numbers.






a 30 and 6  b 53 and 20  c 315 and 70



## Multiplying by a 2-digit number

Before you learn ...

Eva bought 15 boxes of cookies. Each box had 24 cookies.

Use      to show how to find the total number of cookies.

Learn

### Multiply a 2-digit number by a 2-digit number

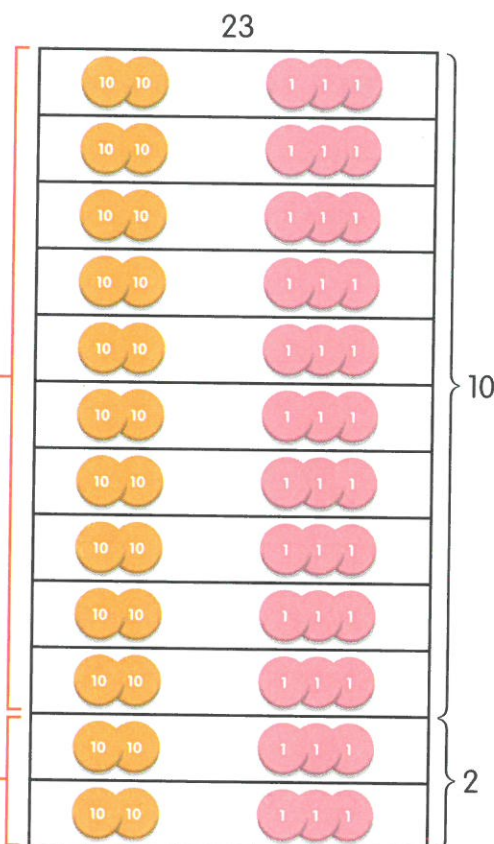
1 Multiply 23 by 12.

$$23 \times 12 = ?$$

$$12 = 10 + 2$$

We can add  $23 \times 2$  and  $23 \times 10$  to find out.

$$\begin{aligned} 23 \times 10 &= 230 \\ 23 \times 2 &= 46 \\ 23 \times 12 &= 230 + 46 \\ &= 276 \end{aligned}$$



Step 1	Step 2	Step 3
$\begin{array}{r} 23 \\ \times 12 \\ \hline 46 \end{array}$	$\begin{array}{r} 23 \\ \times 12 \\ \hline 46 \\ 230 \end{array}$	$\begin{array}{r} 23 \\ \times 12 \\ \hline 46 \\ 230 \\ \hline 276 \end{array}$

So,  $23 \times 12 = 276$ .

$23 \approx 20$  and  $12 \approx 10$   
 $20 \times 10 = 200$   
 $23 \times 12 \approx 200$   
 $276$  is close to  $200$ .  
 So, the answer is reasonable.



## Multiply a 3-digit number by a 2-digit number

2 Multiply 359 by 24.

$$24 = 20 + 4$$

$$359 \times 24 = ?$$

We can add  $359 \times 4$  and  $359 \times 20$  to find out.

$$\begin{aligned} 359 \times 20 &= 7180 \\ 359 \times 4 &= 1436 \\ 359 \times 24 &= 7180 + 1436 \\ &= 8616 \end{aligned}$$



Step 1	Step 2	Step 3																																																																					
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← 359 × 4

← 359 × 20

$$359 \times 4$$

$$359 \times 20$$

So,  $359 \times 24 = 8616$ .

$$\begin{aligned} 359 &\approx 400 \\ 24 &\approx 20 \\ 400 \times 20 &= 8000 \\ 359 \times 24 &\approx 8000 \\ 8616 &\text{ is close to } 8000. \\ \text{So, the answer is reasonable.} \end{aligned}$$







## Hands-on Activity

Estimate and check answers.

Work in pairs.

- 1 Roll a to make a 4-digit number.
- 2 Your partner rolls the . If the number is 0 or 1, he/she rolls the again.
- 3
  - a Estimate the product of the numbers in 1 and 2.
  - b Multiply the numbers in 1 and 2.

Then, record your answers in a table.

### Example

$$1259 \times 7 = ?$$

Estimated value	Answer
7000	8813

- 4 Switch roles. Repeat 1 to 3 three more times.
- 5 Compare the answers with the estimated values. Are the answers reasonable?



## Guided Practice

- 1 Multiply.

a

$$\begin{array}{r} 16 \\ \times 15 \\ \hline \end{array}$$

b

$$\begin{array}{r} 33 \\ \times 12 \\ \hline \end{array}$$

c

$$\begin{array}{r} 24 \\ \times 41 \\ \hline \end{array}$$

d

$$\begin{array}{r} 36 \\ \times 49 \\ \hline \end{array}$$

e

$$\begin{array}{r} 78 \\ \times 42 \\ \hline \end{array}$$

f

$$\begin{array}{r} 99 \\ \times 55 \\ \hline \end{array}$$

**2** Multiply.

**a**

$$\begin{array}{r} 310 \\ \times 28 \\ \hline \end{array}$$

**b**

$$\begin{array}{r} 423 \\ \times 19 \\ \hline \end{array}$$

**c**

$$\begin{array}{r} 206 \\ \times 82 \\ \hline \end{array}$$

**d**

$$\begin{array}{r} 892 \\ \times 74 \\ \hline \end{array}$$

**3** Estimate. Then, multiply.

**a**  $21 \times 43 =$

**b**  $38 \times 17 =$

**c**  $76 \times 18 =$

**d**  $45 \times 37 =$

**e**  $130 \times 42 =$

**f**  $56 \times 124 =$

**g**  $591 \times 78 =$

**h**  $34 \times 809 =$

**4** Find the product of each pair of numbers.

**a** 19 and 52

**b** 73 and 11

**c** 32 and 65

**d** 59 and 46

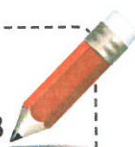
**e** 109 and 23

**f** 46 and 213

**g** 603 and 76

**h** 87 and 960

Workbook A:  
Practice 2,  
pages 45–48





## Dividing by a 1-Digit Number

## Recall

1 What is  $96 \div 8$ ?

Step 1	Step 2
<div> <div>1</div> <div>8) 9 6</div> <div>8</div> <div>1</div> </div>	<div> <div>1 2</div> <div>8) 9 6</div> <div>8</div> <div>1 6</div> <div>1 6</div> <div>0</div> </div>

$$96 \div 8 = 12$$

2 Find the quotient and remainder when 715 is divided by 7.

$$715 \div 7 = ?$$

Step 1	Step 2	Step 3
<div> <div>1</div> <div>7) 7 1 5</div> <div>7</div> </div>	<div> <div>1 0</div> <div>7) 7 1 5</div> <div>7</div> <div>1</div> </div>	<div> <div>1 0 2</div> <div>7) 7 1 5</div> <div>7</div> <div>1 5</div> <div>1 4</div> <div>1</div> </div>






$$715 \div 7 = 102R1$$

The quotient is 102. The remainder is 1.

## Dividing by a 1-digit number

**Before you learn ...**

There were 1250 art pieces submitted for an art competition.  
Each participant submitted 2 art pieces.

Use      to show how to find the number of participants.

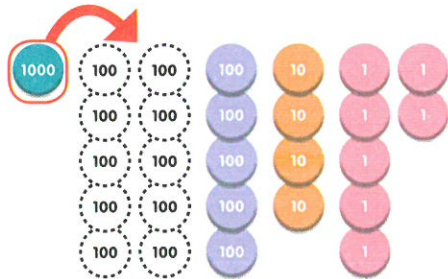
**Learn**

### Divide a 4-digit number without remainder

- 7 friends paid \$1547 for a trip.  
Each friend paid an equal amount.  
How much did each friend pay for the trip?

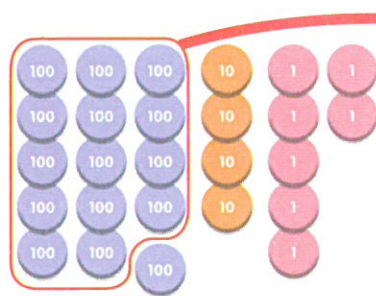
Divide 1547 by 7 to find out.

$$1547 \div 7 = ?$$




Rename.  
1 thousand  
= 10 hundreds

Add the hundreds.  
10 hundreds  
+ 5 hundreds  
= 15 hundreds

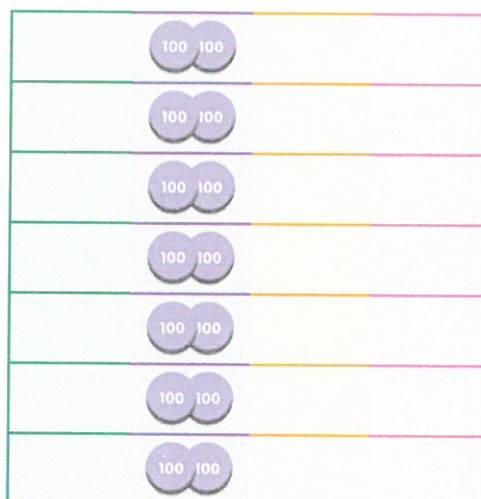
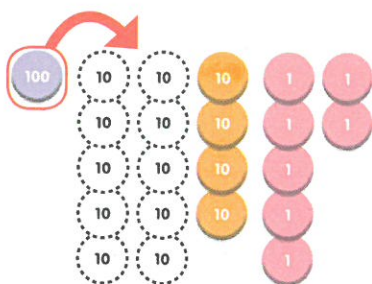


	100	100	
	100	100	
	100	100	
	100	100	
	100	100	
	100	100	
	100	100	

**Step 1**  
Divide the  
hundreds by 7.  
 $15 \text{ hundreds} \div 7$   
= 2 hundreds in  
each group  
with remainder  
1 hundred

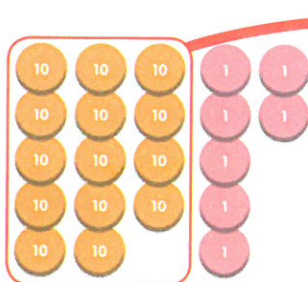
		2		
7)	1	5	4	7
	1	4		
		1		





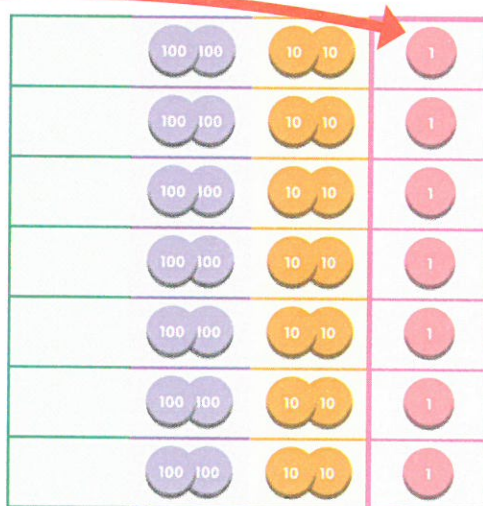
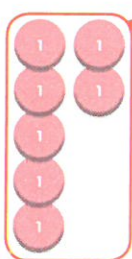
Rename.  
1 hundred = 10 tens  
Add the tens.  
10 tens + 4 tens  
= 14 tens

		2		
7)	1	5	4	7
	1	4		
		1	4	



**Step 2**  
Divide the tens by 7.  
 $14 \text{ tens} \div 7$   
= 2 tens in each group

		2	2	
7)	1	5	4	7
	1	4		
		1	4	
		1	4	



**Step 3**  
Divide the ones by 7.  
 $7 \text{ ones} \div 7$   
= 1 one in each group

		2	2	1
7)	1	5	4	7
	1	4		
		1	4	
		1	4	
				7
				7
				0

$\$1547 \div 7 = \$221$   
Each friend paid \$221 for the trip.

Let's recap!

Step 1	Step 2	Step 3
$\begin{array}{r} 7 \overline{) 1547} \\ \underline{14} \phantom{0} \\ 14 \phantom{0} \\ \underline{14} \phantom{0} \\ 0 \end{array}$	$\begin{array}{r} 7 \overline{) 1547} \\ \underline{14} \phantom{0} \\ 14 \phantom{0} \\ \underline{14} \phantom{0} \\ 0 \end{array}$	$\begin{array}{r} 7 \overline{) 1547} \\ \underline{14} \phantom{0} \\ 14 \phantom{0} \\ \underline{14} \phantom{0} \\ 0 \end{array}$

700, 1400, 2100, ...  
 $1547 \approx 1400$   
 $1400 \div 7 = 200$   
 $1547 \div 7 \approx 200$   
 221 is close to 200.  
 So, the answer is reasonable.



Is there another way to divide?

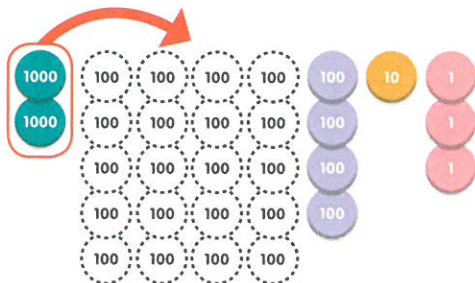




## Divide a 4-digit number with remainder

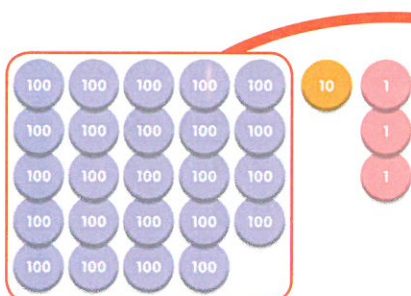
- 2 Find the quotient and remainder when 2413 is divided by 6.

$$2413 \div 6 = ?$$




Rename.  
2 thousands  
= 20 hundreds

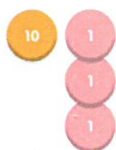
Add the hundreds.  
20 hundreds  
+ 4 hundreds  
= 24 hundreds



100	100	100	100
100	100	100	100
100	100	100	100
100	100	100	100
100	100	100	100
100	100	100	100

**Step 1**  
Divide the hundreds by 6.  
 $24 \text{ hundreds} \div 6$   
= 4 hundreds in each group

		4		
6)	2	4	1	3
	2	4		

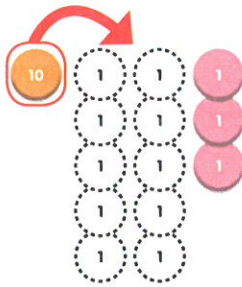


100	100	100	100
100	100	100	100
100	100	100	100
100	100	100	100
100	100	100	100
100	100	100	100

**Step 2**  
Divide the tens by 6.  
 $1 \text{ ten} \div 6$   
= 0 tens in each group  
with remainder 1 ten

		4	0	
6)	2	4	1	3
	2	4		
			1	
			0	
			1	

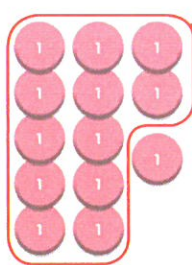
Continued on  
next page



Rename.  
1 ten = 10 ones

Add the ones.  
10 ones + 3 ones = 13 ones

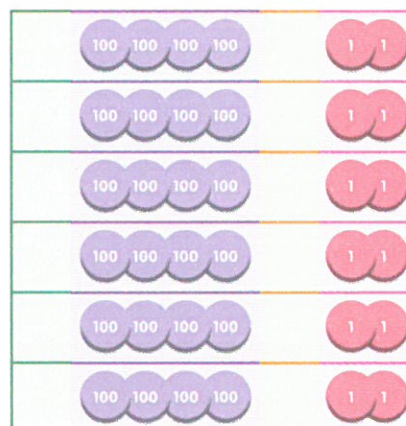
		4	0	
6)	2	4	1	3
	2	4		
			1	
			0	
			1	3



### Step 3

Divide the ones by 6.  
 $13 \text{ ones} \div 6$   
= 2 ones in each group  
with remainder 1 one

		4	0	2
6)	2	4	1	3
	2	4		
			1	
			0	
			1	3
			1	2
				1





$$2413 \div 6 = 402R1$$

The quotient is 402. The remainder is 1.

1800, **2400**, 3000  
 $2413 \approx 2400$   
 $2400 \div 6 = 400$   
 $2413 \div 6 \approx 400$   
 402 is close to 400.  
 So, the answer is reasonable.



Let's recap!

Step 1	Step 2	Step 3																																																																																					
<table><tr><td></td><td></td><td>4</td><td></td><td></td></tr><tr><td>6)</td><td>2</td><td>4</td><td>1</td><td>3</td></tr><tr><td></td><td>2</td><td>4</td><td></td><td></td></tr></table>			4			6)	2	4	1	3		2	4			<table><tr><td></td><td></td><td>4</td><td>0</td><td></td></tr><tr><td>6)</td><td>2</td><td>4</td><td>1</td><td>3</td></tr><tr><td></td><td>2</td><td>4</td><td></td><td></td></tr><tr><td></td><td></td><td></td><td>1</td><td></td></tr><tr><td></td><td></td><td></td><td>0</td><td></td></tr><tr><td></td><td></td><td></td><td>1</td><td></td></tr></table>			4	0		6)	2	4	1	3		2	4						1					0					1		<table><tr><td></td><td></td><td>4</td><td>0</td><td>2</td></tr><tr><td>6)</td><td>2</td><td>4</td><td>1</td><td>3</td></tr><tr><td></td><td>2</td><td>4</td><td></td><td></td></tr><tr><td></td><td></td><td></td><td>1</td><td></td></tr><tr><td></td><td></td><td></td><td>0</td><td></td></tr><tr><td></td><td></td><td></td><td>1</td><td>3</td></tr><tr><td></td><td></td><td></td><td>1</td><td>2</td></tr><tr><td></td><td></td><td></td><td></td><td>1</td></tr></table>			4	0	2	6)	2	4	1	3		2	4						1					0					1	3				1	2					1
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## Hands-on Activity

Estimate and check answers.

Work in pairs.

- 1 Roll a to make a 4-digit number.
- 2 Your partner rolls the . If the number is 0 or 1, he/she rolls the again.
- 3
  - a Estimate the quotient of the numbers in 1 and 2.
  - b Divide the numbers in 1 and 2.

Then, record your answers in a table.

### Example

$$4176 \div 6 = ?$$

Estimated value	Answer
700	696

- 4 Switch roles. Repeat 1 to 3 three more times.
- 5 Compare the answers with the estimated values. Are the answers reasonable?



## Guided Practice

- 1 Estimate. Then, divide.

a

$$6 \overline{) 7536}$$

b

$$4 \overline{) 7216}$$

c

$$5 \overline{) 4105}$$

d

$$8 \overline{) 1649}$$

e

$$9 \overline{) 9264}$$

f

$$7 \overline{) 2228}$$



2 Find the quotient and remainder.

a  $8075 \div 6 =$

b  $5227 \div 3 =$

c  $6100 \div 8 =$

d  $2838 \div 7 =$

3 Divide 6144 by 6.

4 Find the quotient and remainder when 3471 is divided by 9.



### Maths Sharing

Use mental strategies.

Wilson solved the following mentally.

1 Divide 420 by 5.

$420 \div 5 = ?$

step 1  $400 \div 5 = 80$

step 2  $20 \div 5 = 4$

step 3  $80 + 4 = 84$



2 Multiply 89 by 3.

$89 = 80 + 9$   
 $80 \times 3 = 240$   
 $9 \times 3 = 27$   
 $240 + 27 = 267$



What other ways are there?  
Discuss with your classmates.

Workbook A:  
Practice 3,  
pages 49–52



## Chapter 3 Review

1 Multiply.

a  $3000 \times 2 =$

b  $6000 \times 4 =$

2 Multiply.

a 
$$\begin{array}{r} 1132 \\ \times \quad 2 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 2102 \\ \times \quad 4 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 1078 \\ \times \quad 3 \\ \hline \end{array}$$

d 
$$\begin{array}{r} 7099 \\ \times \quad 9 \\ \hline \end{array}$$

e 
$$\begin{array}{r} 8007 \\ \times \quad 5 \\ \hline \end{array}$$

f 
$$\begin{array}{r} 3820 \\ \times \quad 7 \\ \hline \end{array}$$

3 Multiply.

a  $10 \times 50 =$

b  $40 \times 30 =$

c  $20 \times 70 =$

d  $800 \times 30 =$

4 Multiply.

a 
$$\begin{array}{r} 37 \\ \times 20 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 51 \\ \times 18 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 96 \\ \times 25 \\ \hline \end{array}$$

d 
$$\begin{array}{r} 200 \\ \times 35 \\ \hline \end{array}$$

e 
$$\begin{array}{r} 983 \\ \times 16 \\ \hline \end{array}$$

f 
$$\begin{array}{r} 906 \\ \times 88 \\ \hline \end{array}$$

5 Estimate. Then, multiply.

a  $75 \times 12 =$

b  $63 \times 71 =$

c  $817 \times 37 =$

d  $52 \times 390 =$



6 Divide.

a  $\overline{9 \over 9504}$

b  $\overline{8 \over 5376}$

c  $\overline{7 \over 6916}$

7 Estimate. Then, divide.

a  $5424 \div 6 =$

b  $8040 \div 8 =$

8 Find the quotient and the remainder.

a  $3602 \div 9 =$

b  $9000 \div 7 =$

Workbook A:  
Chapter 3 Review, pages 53–56  
Maths Journal, page 57



### Put on Your Thinking Cap!

- 1 12 865 470 45

Which two of the above numbers give the following products?  
Hint: Use estimation to help you.

a 540

b 5640

c 38 925

2 The product of two facing page numbers of a storybook is 210.  
The book has 30 pages. What are the two page numbers?

3 When a number is divided by 9, it gives a quotient of 262 and a  
remainder of 7.  
What is the number?

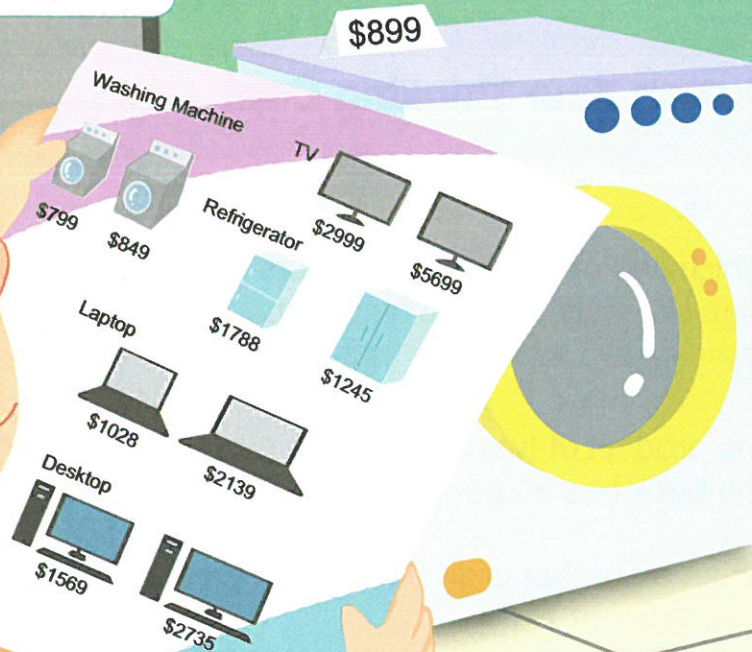
Workbook A:  
Put on Your Thinking Cap!  
page 58





# Whole Numbers: Word Problems

I have \$10 000. I want to buy a TV set, a refrigerator and a laptop. Will I have enough money to buy a washing machine, too?



## Big Idea

Use the four-step problem-solving method to help you solve word problems.

## Lesson

### 1 Solving Word Problems



# Lesson 1

## Solving Word Problems

### Solving word problems

#### Before you learn ...

There were 1175 pupils at a school carnival.  
There were 75 more girls than boys.  
How many girls were there? Explain how to solve it.

#### Recall

- 1 At a computer store, a printer was sold at \$490.  
At an electronics store, the same printer was sold at \$435.
  - a How much cheaper was the printer sold at the electronics store than at the computer store?
  - b A manager bought 6 printers from the electronics store.  
How much did he save?



$$\$490 - \$435 = \$55$$

The printer sold at the electronics store was \$55 cheaper than at the computer store.

b  $6 \times \$55 = \$330$

He saved \$330.

- 1** Mr Gan and Mr Fong had \$4536 altogether.  
Mr Gan's share was twice as much as Mr Fong's.

- a** How much was Mr Gan's share?  
**b** Mr Gan spent \$500 on a television. How much did he have left?

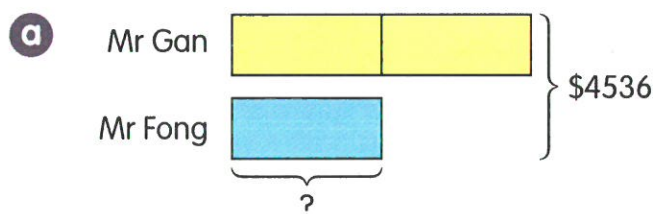
**Step 1** What have I gathered from the problem?

How much did Mr Gan and Mr Fong have altogether?  
Who had more?



**Step 2** How do I solve it?  
I can draw a model.

**Step 3** What do I need to find?  
I need to find Mr Gan's share.  
Then, I need to find how much Mr Gan had left.

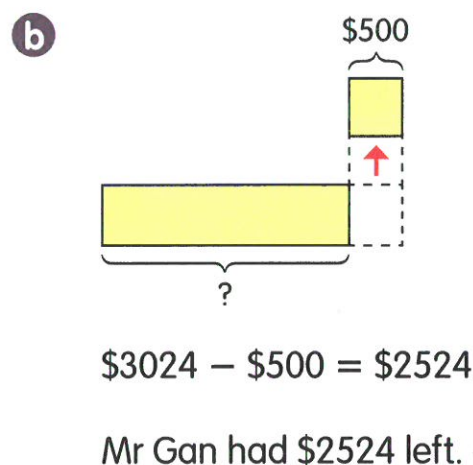


$$\begin{aligned} 3 \text{ units} &= \$4536 \\ 1 \text{ unit} &= \$4536 \div 3 \\ &= \$1512 \end{aligned}$$

Mr Fong's share was \$1512.

$$\begin{aligned} 2 \text{ units} &= \$1512 \times 2 \\ &= \$3024 \end{aligned}$$

Mr Gan's share was \$3024.



**Step 4** How can I check my answer?  
I can use estimation to check  
if my answers are reasonable.

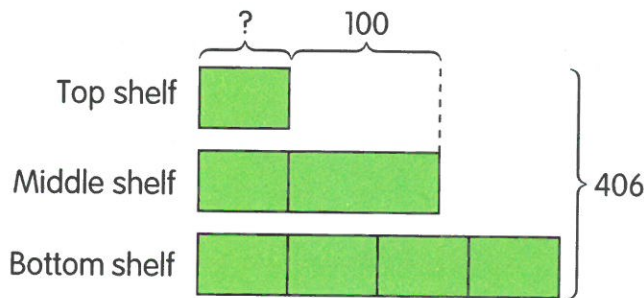


2

There were 406 books in a bookcase altogether.  
 The bookcase had three shelves.  
 The middle shelf had 100 more books than the top shelf.  
 The bottom shelf had 4 times as many books as the top shelf.

- a How many books were there on the top shelf?  
 b How many books were there on the bottom shelf?

a



$$406 - 100 = 306$$

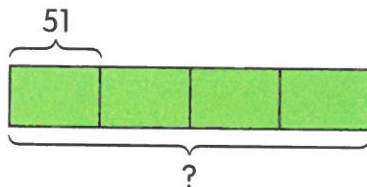
$$6 \text{ units} = 306$$

$$1 \text{ unit} = 306 \div 6$$

$$= 51$$

There were 51 books on the top shelf.

b



$$4 \text{ units} = 4 \times 51$$

$$= 204$$

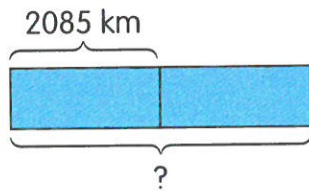
There were 204 books on the bottom shelf.

Use the four-step problem-solving method to help you. Then, work backwards to check if your answer is reasonable. You can use estimation to help you.



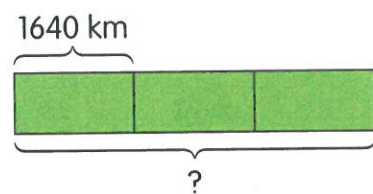
3

An aeroplane made 5 trips. It travelled 2085 km each on 2 of the trips. On the other trips, it travelled 1640 km each. What was the total distance travelled by the aeroplane?



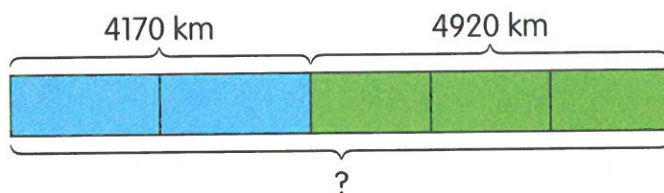
$$2085 \times 2 = 4170$$

The aeroplane travelled 4170 km on 2 of the trips.



$$1640 \times 3 = 4920$$

The aeroplane travelled 4920 km on the other trips.

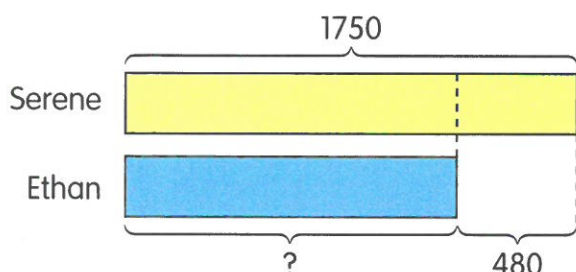


$$4170 + 4920 = 9090$$

The aeroplane travelled a total distance of 9090 km.



- 4 Serene had 1750 stamps. Ethan had 480 fewer stamps than Serene. Serene gave some stamps to Ethan. In the end, Ethan had 3 times as many stamps as Serene. How many stamps did Serene have in the end?

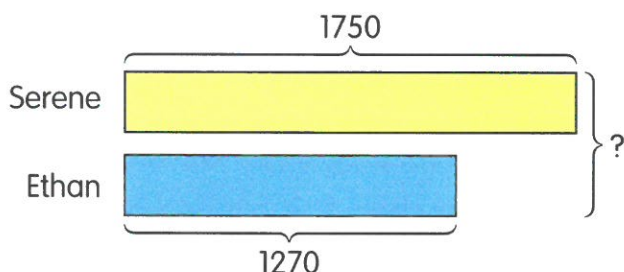


Find the number of stamps Ethan had at first.



$$1750 - 480 = 1270$$

Ethan had 1270 stamps at first.

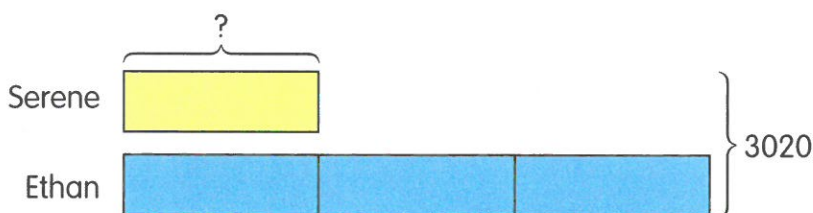


Next, find the total number of stamps Serene and Ethan had at first.



$$1750 + 1270 = 3020$$

Serene and Ethan had a total of 3020 stamps at first.



Lastly, divide the total number of stamps they had at first by 4. This will give the number of stamps Serene had in the end.

$$\begin{aligned} 4 \text{ units} &= 3020 \\ 1 \text{ unit} &= 3020 \div 4 \\ &= 755 \end{aligned}$$

Serene had 755 stamps in the end.





## Hands-on Activity

Create word problems.

Work in groups.

1 Complete the stories.

- a Marie paid a total of \$284 for 3 sweaters and 5 jackets.  
Each sweater cost \$  more than each jacket.  
Each jacket cost \$ .
- b A fruiterer bought  baskets of lemons.  
Each basket contained 256 lemons.  
He packed the lemons into bags of 4.  
He sold each bag at \$7.  
He received \$  altogether.
- c There were  canned fruits in a factory. 5725 were canned pineapples. The rest were canned peaches and canned pears.  
There were 2186 more canned peaches than canned pears.  
There were  canned pears in the factory.

2 Write a word problem with the words and numbers given in the box.

100	birds	5	trees	475	twice
stamps	12	3200	fewer	23 600	more

### Example

Fiona, Gopi and Hani shared 100 stamps.  
Fiona received 12 more stamps than Gopi.  
Hani received twice as many stamps as Fiona.  
How many stamps did Fiona receive?

3 Ask your classmates to solve the word problem and explain how they check their answers.



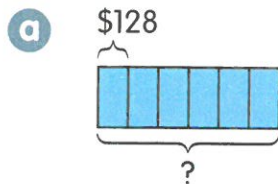


## Guided Practice

1

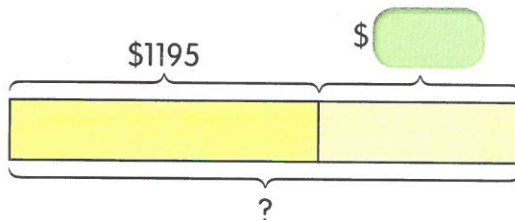
Mrs Tan had \$3756 to spend on furniture.  
She bought a sofa set for \$1195 and 6 chairs at \$128 each.

- a How much did she spend altogether?
- b How much money did she have left?



$$\boxed{\phantom{000}} \times \$\boxed{\phantom{000}} = \$\boxed{\phantom{000}}$$

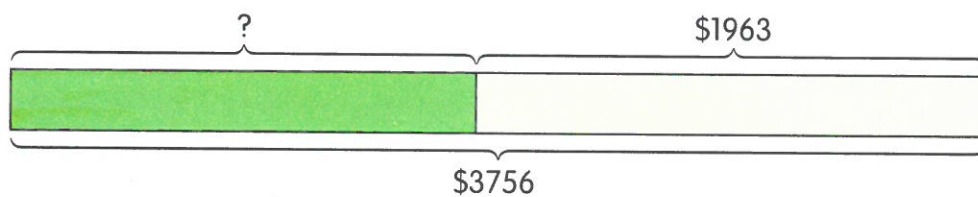
The 6 chairs cost \$ $\boxed{\phantom{000}}$ .



$$\$ \boxed{\phantom{000}} + \$ \boxed{\phantom{000}} = \$ \boxed{\phantom{000}}$$

She spent \$ $\boxed{\phantom{000}}$  altogether.

b



$$\$ \boxed{\phantom{000}} - \$ \boxed{\phantom{000}} = \$ \boxed{\phantom{000}}$$

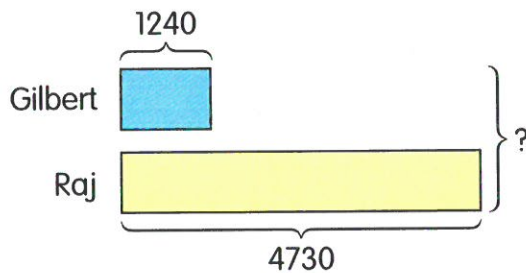
She had \$ $\boxed{\phantom{000}}$  left.

2

Gilbert had 1240 beads and Raj had 4730 beads.  
Raj gave some beads to Gilbert.  
In the end, Gilbert had twice as many beads as Raj.

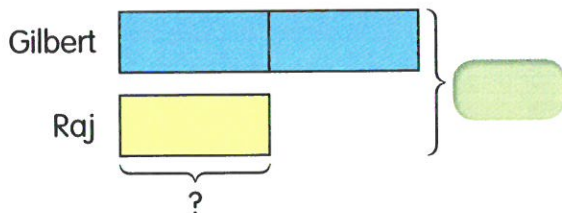
- a How many beads did Raj have in the end?  
b How many beads did Raj give Gilbert?

a



$$\boxed{\phantom{000}} + \boxed{\phantom{000}} = \boxed{\phantom{000}}$$

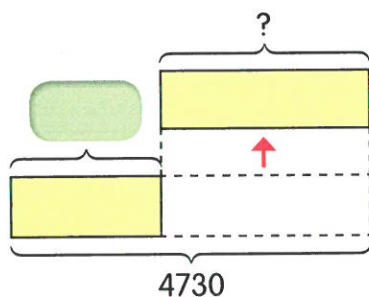
Gilbert and Raj had  $\boxed{\phantom{000}}$  beads altogether.



$$\boxed{\phantom{000}} + \boxed{\phantom{000}} = \boxed{\phantom{000}}$$

Raj had  $\boxed{\phantom{000}}$  beads in the end.

b

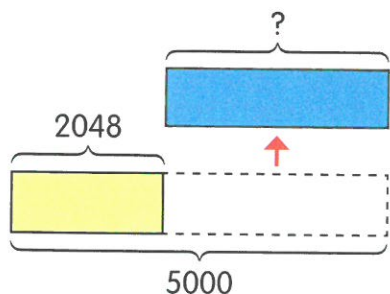


$$\boxed{\phantom{000}} + \boxed{\phantom{000}} = \boxed{\phantom{000}}$$

Raj gave Gilbert  $\boxed{\phantom{000}}$  beads.



- 3 A tailor had 5000 buttons.  
He sewed 9 buttons on each shirt and had 2048 buttons left.  
Then, he sold all the shirts at \$36 each.  
Find the total amount collected by the tailor.



$$\boxed{\phantom{000}} \ominus \boxed{\phantom{000}} = \boxed{\phantom{000}}$$

He used  $\boxed{\phantom{000}}$  buttons to sew the shirts.

$$\boxed{\phantom{000}} \div \boxed{\phantom{000}} = \boxed{\phantom{000}}$$

He sewed  $\boxed{\phantom{000}}$  shirts.

$$\boxed{\phantom{000}} \times \$\boxed{\phantom{000}} = \$\boxed{\phantom{000}}$$

The tailor collected \$  $\boxed{\phantom{000}}$ .

Workbook A:  
Practice 1,  
pages 59–66



## Chapter 4 Review

- 1 Eunice and Darren had 500 stickers altogether.  
Darren and Chloe had 420 stickers altogether.  
Darren had twice as many stickers as Chloe.

- a How many stickers did Darren have?  $\boxed{\phantom{000}}$   
b How many stickers did Eunice have?  $\boxed{\phantom{000}}$



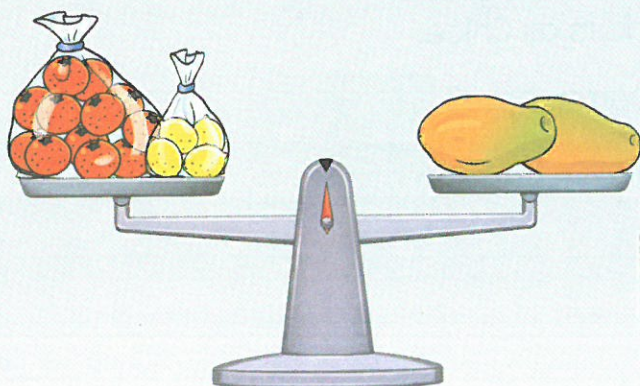
- 2 An empty box has a mass of 75 g.  
David packs 12 jars of jam, each of mass 380 g into the box.  
What is the total mass of 9 such boxes of jam?
- 3 Mrs Ng paid \$2083 for 2 similar laptops and 3 similar earphones.  
Each laptop cost \$899. What was the cost of each earphone?
- 4 The sum of two numbers is 207.  
The difference between the two numbers is 11.  
Find the greater number.

Workbook A:  
Chapter 4 Review, pages 67–71  
Maths Journal, page 72



### Put on Your Thinking Cap!

- 1 Mr See got \$1675 from selling 50 thumb drives and computer keyboards.  
Each thumb drive cost \$24 and each computer keyboard cost \$49.  
How many computer keyboards did he sell?
- 2 Meena had no money. Lisa gave her some money.  
Lisa then had 3 times as much money as Meena.  
Lisa spent \$24 on shoes and \$72 on a dress and had no money left.  
How much money did Lisa have at first?
- 3 The total mass of 12 oranges and 4 lemons is equal to the mass of  
2 papayas. How many papayas weigh as much as 18 oranges and  
6 lemons?



Workbook A:  
Put on Your Thinking Cap!  
pages 73–74  
Review 2, pages 75–80





## Angles



## Lessons

- 1 Understanding and Measuring Angles
- 2 Drawing Angles to  $180^\circ$
- 3 Turns and 8-Point Compass

## Big Idea

Angles can be seen and measured when two lines meet at a point.



# Lesson 1

## Understanding and Measuring Angles

### Naming angles

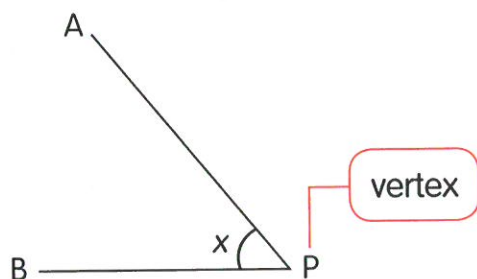
**Before you learn ...**

Label the corners of your textbook A, B, C and D.  
How many angles are there? Name the angles.

**Learn**

### Name angles

- 1 Lines AP and BP meet at point P to form an angle.

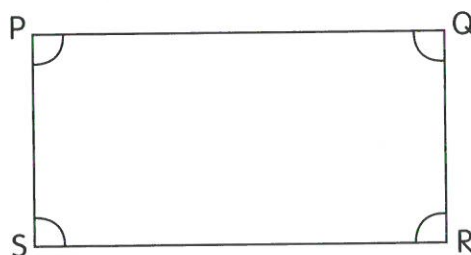
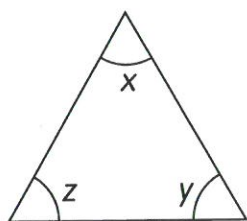


The symbol used to name angles is  $\angle$ .



The angle can be named as  $\angle APB$  or  $\angle BPA$  or  $\angle x$ .

- 2 An angle is also formed when two sides of a shape meet at a point.



What are the names of all the angles in these shapes?



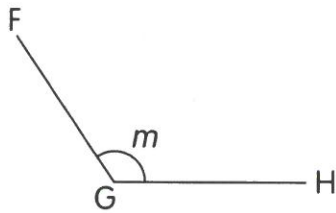




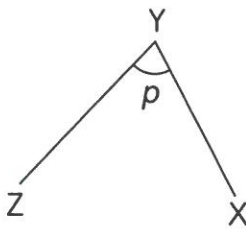
## Guided Practice

1 Name each angle in different ways.

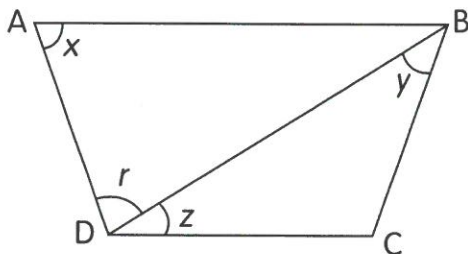
a



b



2 Look at the following figure.  
Name each marked angle in another way.



a

$\angle r =$

b

$\angle x =$

c

$\angle DBC =$

d

$\angle BDC =$

## Measuring angles

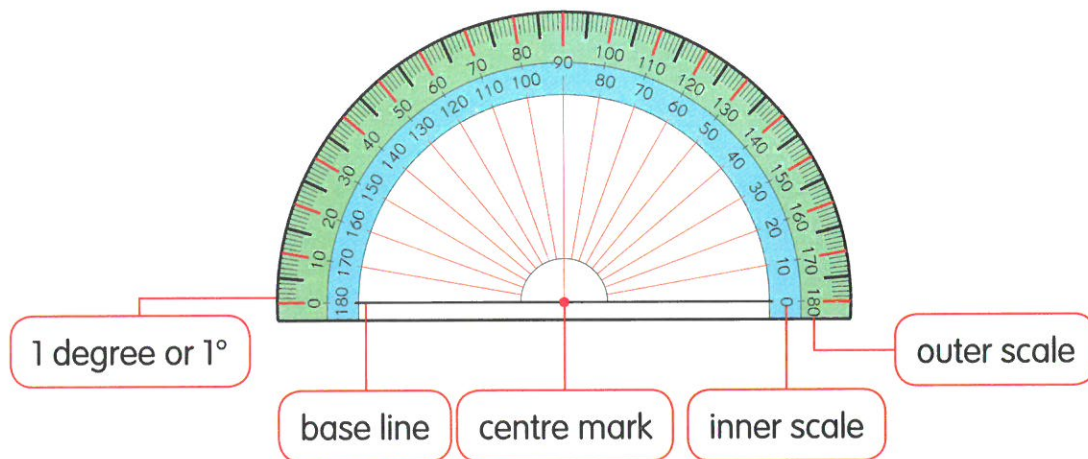
### Before you learn ...

Nicholas turned the minute hand of a clock from 15 minutes to 30 minutes. Can you figure out the angle that the minute hand has turned?

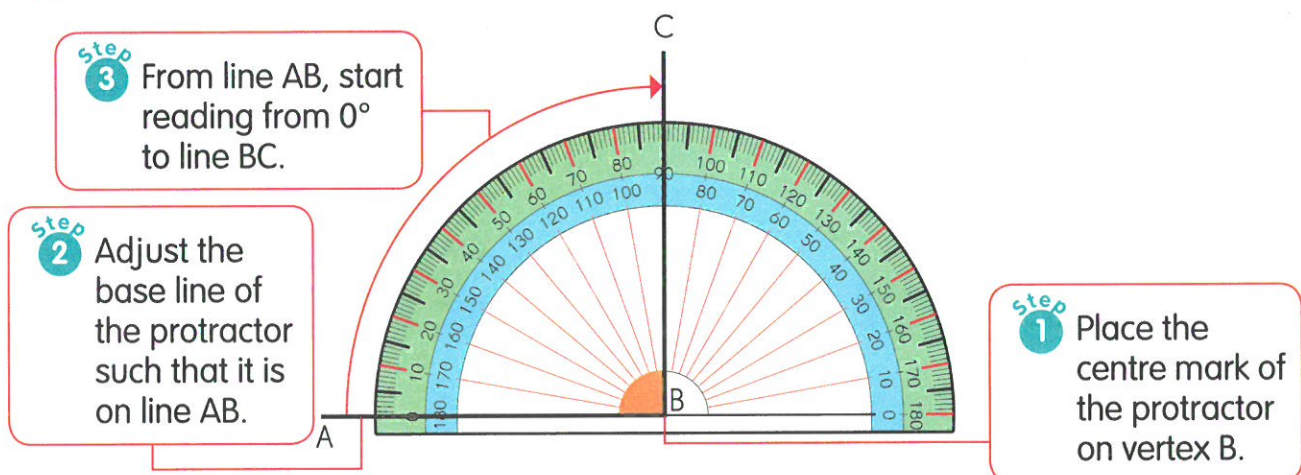
### Learn

## Measure angles

- 1 A protractor is an instrument used to measure and draw angles. The size of an angle is measured in degrees. The symbol for degree is  $^{\circ}$ .



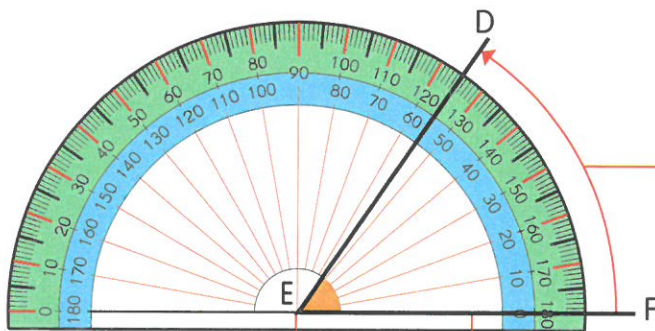
- 2 Use a protractor to check for a right angle.



Since line BC passes through the  $90^{\circ}$  mark, the angle ABC is 90 degrees. We write this as  $\angle ABC = 90^{\circ}$ .



- 3 Measure an acute angle DEF using a protractor. Check that the measurement is reasonable. These are the steps to follow.



**Step 1** Place the centre mark of the protractor on vertex E.

**Step 3** From line EF, start reading from  $0^\circ$  to line ED.

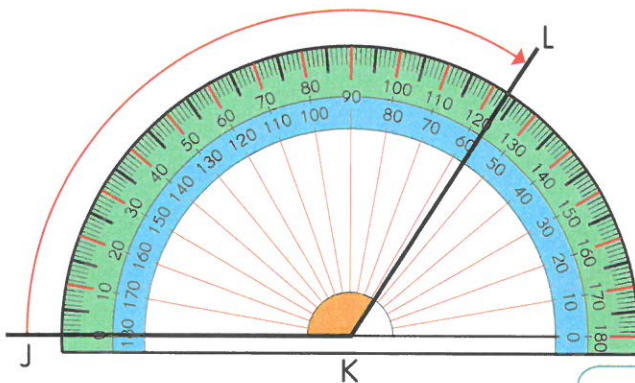
**Step 2** Adjust the base line of the protractor such that it is on line EF.

Since line ED passes through the  $55^\circ$  mark, the angle DEF is 55 degrees. So,  $\angle DEF = 55^\circ$ .

Angle DEF is smaller than  $90^\circ$ . The measurement is reasonable.



- 4 Measure the size of obtuse angle JKL using a protractor. The size of angle JKL is  $123^\circ$ .



Is the measurement reasonable?

Describe the steps used to measure angle JKL.





## Hands-on Activity

Estimate angles.

Work in pairs.

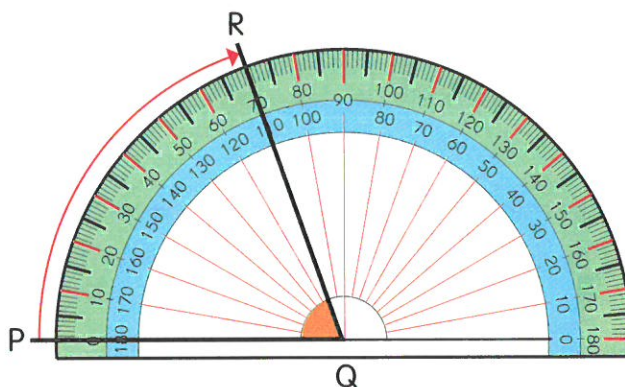
- 1 Draw and name an angle that is smaller than  $180^\circ$ .
- 2 Your partner estimates the size of the angle.
- 3 Use a protractor to measure the angle.  
Is your partner's estimate reasonable?
- 4 Switch roles. Repeat 1 to 3.



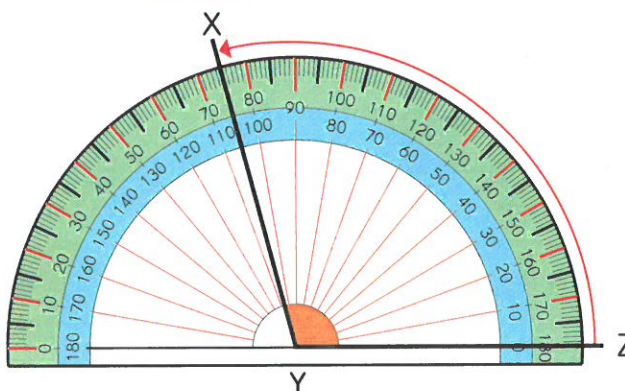
## Guided Practice

- 1 Measure these angles.

a  $\angle PQR =$



b  $\angle XYZ =$



Workbook A:  
Practice 1,  
pages 81–84





# Drawing Angles to $180^\circ$

## Drawing angles to $180^\circ$

**Before you learn ...**

Use a ruler and a protractor to show how to draw an angle of  $60^\circ$ .

**Learn**

**1**

A protractor can be used to draw a given angle.  
Here is how to draw an angle of  $30^\circ$  using the inner scale of a protractor.

**step 1**

Draw a straight line and label it AB.

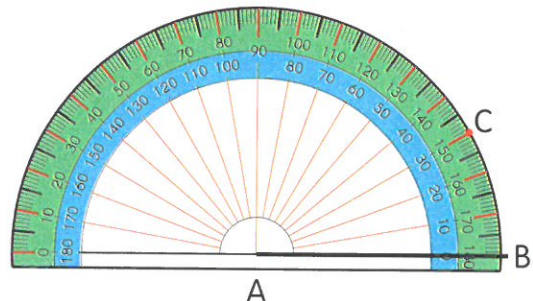
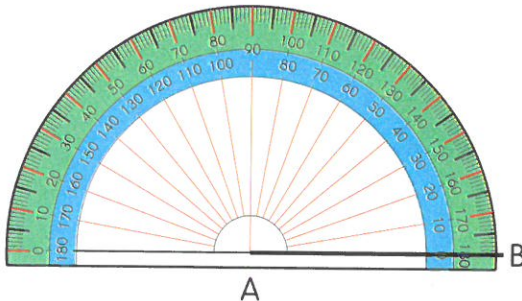
A ————— B

**step 2**

Place the centre mark of the protractor at point A. Check that line AB is on the base line.

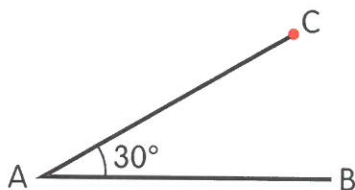
**step 3**

Find the  $30^\circ$  mark on the inner scale of the protractor. Mark it with a dot and label it point C.



**step 4**

Remove the protractor and join point C to point A. Then, mark the angle  $30^\circ$ .



So,  $\angle BAC = 30^\circ$ .

**2** Here is how to draw an angle of  $163^\circ$  using the outer scale of a protractor.

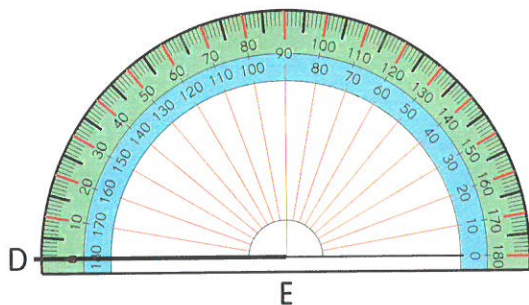
**step 1**

Draw a straight line and label it DE.

D ————— E

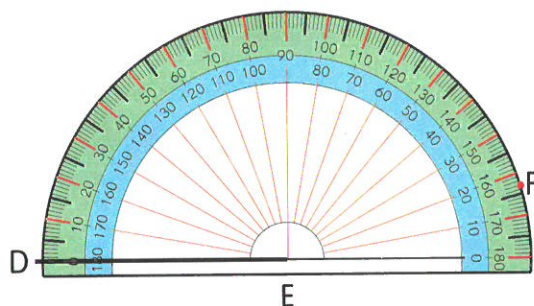
**step 2**

Place the centre mark of the protractor at point E. Check that line DE is on the base line.



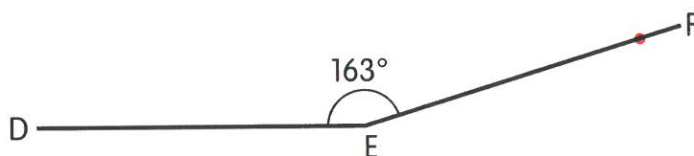
**step 3**

Find the  $163^\circ$  mark on the outer scale of the protractor. Mark it with a dot and label it point F.



**step 4**

Remove the protractor and join point F to point E. Then, mark the angle  $163^\circ$ .



So,  $\angle DEF = 163^\circ$ .



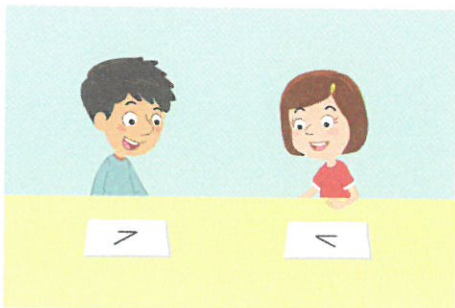


## Hands-on Activity

Draw angles.

1

Use a ruler and a protractor to draw an angle of  $50^\circ$ .



2

Repeat with the following angles.

a

$35^\circ$

b

$90^\circ$

c

$140^\circ$

3

Compare your drawings with your classmates.  
What do you notice?



## Guided Practice

1

Use a ruler and a protractor to draw the following angles.

a

$45^\circ$

b

$80^\circ$

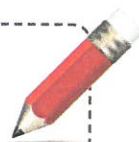
c

$130^\circ$

d

$154^\circ$

Workbook A:  
Practice 2,  
pages 85–88

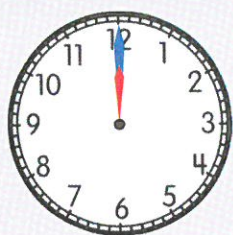


## Turns and 8-Point Compass

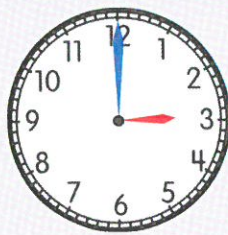
## Turn and 8-point compass

Before you learn ...

Look at the clock.



12 noon

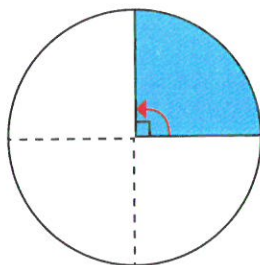


3 p.m.

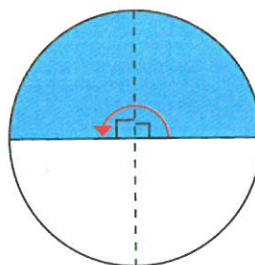
What fraction of the clock did the hour hand turn from 12 noon to 3 p.m.?

Learn

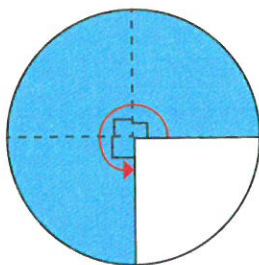
1



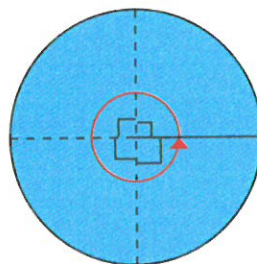
A quarter turn is equal to 1 right angle.  
A  $\frac{1}{4}$ -turn is  $90^\circ$  or 1 right angle.



A half turn is equal to 2 right angles.  
A  $\frac{1}{2}$ -turn is  $180^\circ$  or 2 right angles.



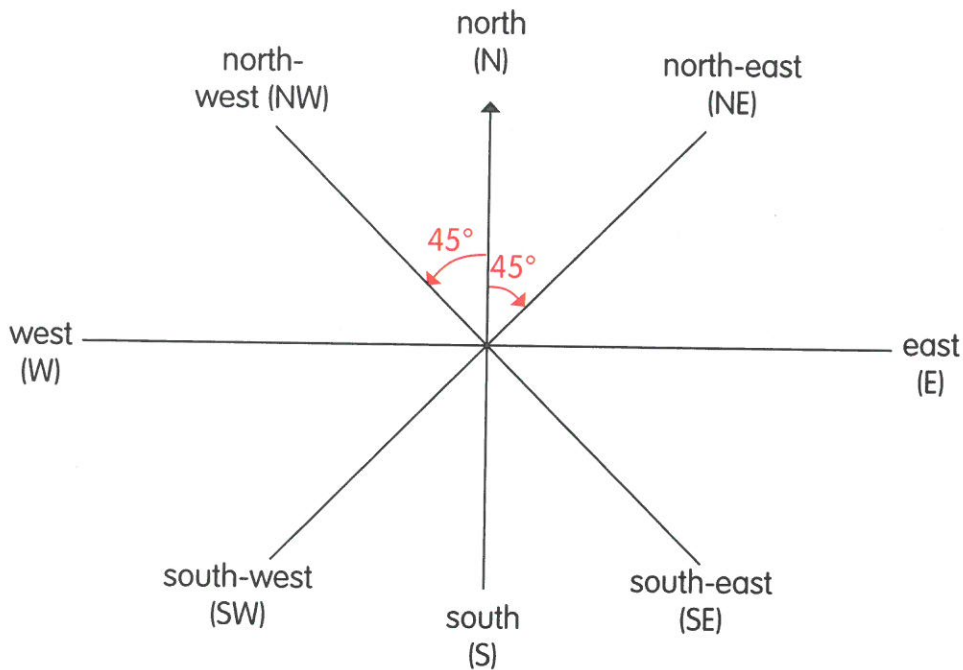
A three-quarter turn is equal to 3 right angles. A  $\frac{3}{4}$ -turn is  $270^\circ$  or 3 right angles.



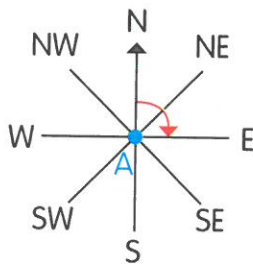
A complete turn is equal to 4 right angles.  
A complete turn is  $360^\circ$  or 4 right angles.



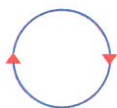
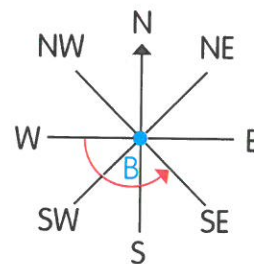
- 2 This is an 8-point compass.



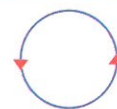
Dustin is standing at A facing north (N). He makes a  $\frac{1}{4}$ -turn **clockwise** to face east (E). He has turned through  $90^\circ$ .



Muthu is standing at B facing west (W). He makes a  $135^\circ$  turn **anti-clockwise** to face south-east (SE). He has turned through  $135^\circ$ .



A clockwise turn is in the same direction as the movement of the hands of a clock.



An anti-clockwise turn is in the opposite direction to the movement of the hands of a clock.

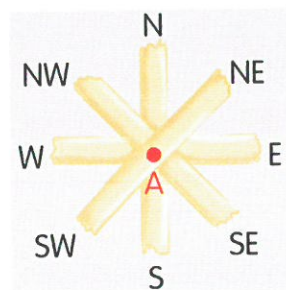


## Hands-on Activity

Find the angles.

Work in pairs.

- 1 Use a tape to make an 8-point compass on your classroom floor as shown.
- 2 Your partner stands at A and faces north. Then, he/she turns clockwise to face south-west.
- 3 Ask your partner what angle he/she has turned through.
- 4 Switch roles and repeat 2 and 3 with the following.
  - a Face north. Turn anti-clockwise to face south-east.
  - b Face east. Turn clockwise to face north-east.

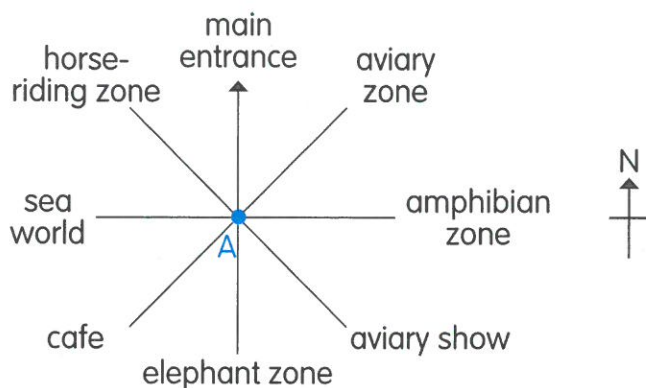


## Guided Practice

- 1 2 right angles is equal to °.
- 2 4 right angles is equal to  complete turn.
- 3 270° is equal to a -turn.
- 4 93° is between a  $\frac{1}{4}$ -turn and a -turn.
- 5 200° is between a  $\frac{1}{2}$ -turn and a -turn.

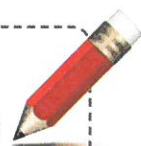


- 6 Jane is standing at A facing north.  
Look at the diagram and answer the questions.



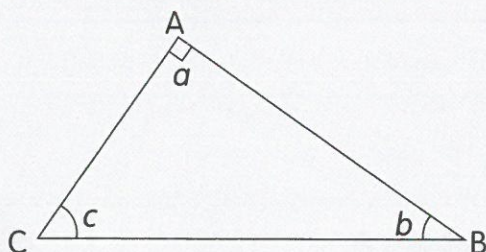
- a The main entrance of the zoo is  of Jane.
- b The  is north-west of Jane.
- c Jane faces north-east.  
She makes a -turn clockwise to face the cafe.
- d Jane faces south-west.  
She turns anti-clockwise through an angle of .  
She ends up facing the elephant zone.

Workbook A:  
Practice 3,  
pages 89–92



## Chapter 5 Review

- 1 Name the angles in the following triangle.

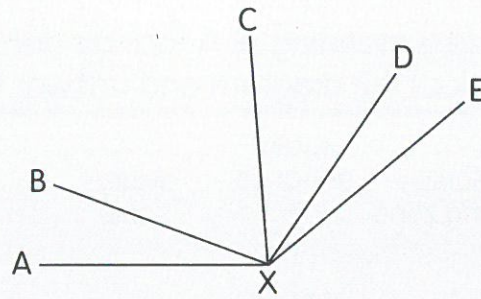


- a  $\angle a =$        b  $\angle b =$        c  $\angle c =$

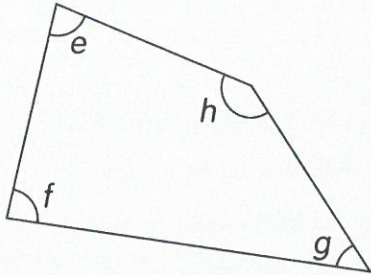
2 Name the angle that is equal to

a  $85^\circ =$

b  $120^\circ =$



3 Use a protractor to measure the angles in the following figure.



a  $\angle e =$

b  $\angle f =$

c  $\angle g =$

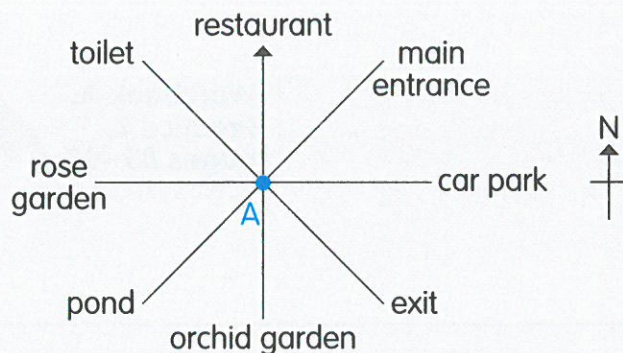
d  $\angle h =$

4 Draw the following angles.

a  $64^\circ$

b  $178^\circ$

5 Eden is standing at A facing north.  
Look at the diagram and answer the questions.



a The car park is  of Eden.

b Eden faces north.  
She turns  $225^\circ$  anti-clockwise.  
She ends up facing the .

Workbook A:  
Chapter 5 Review, pages 93–96  
Maths Journal, page 97

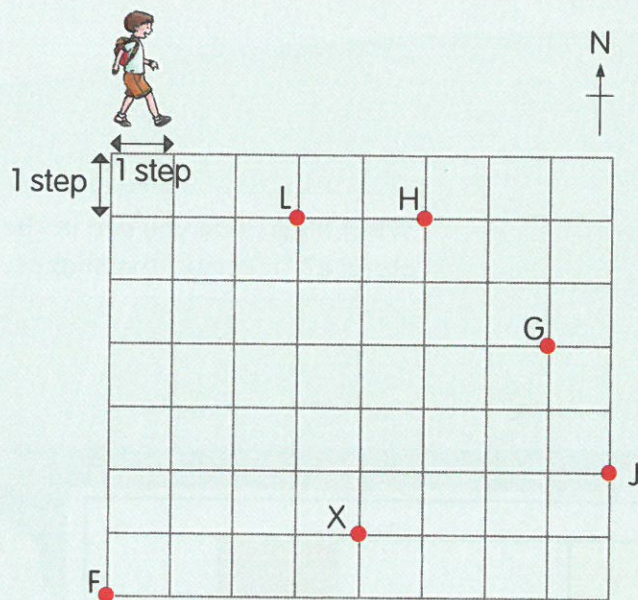






## Put on Your Thinking Cap!

- 1 Look at the grid and answer the following question.

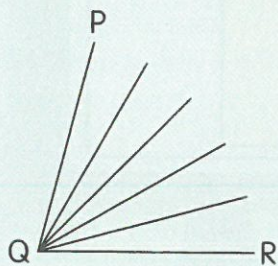


Ali was at a certain position. He walked as described and ended up at position X.

2 steps to the north, then 2 steps to the west,  
then 2 steps to the south, then 1 step to the east,  
then 1 step to the south, and then 3 steps to the west.

What was his starting position?

- 2 An acute angle is smaller than  $90^\circ$ .  $\angle PQR$  is an acute angle.  
How many acute angles are there altogether in the following figure?



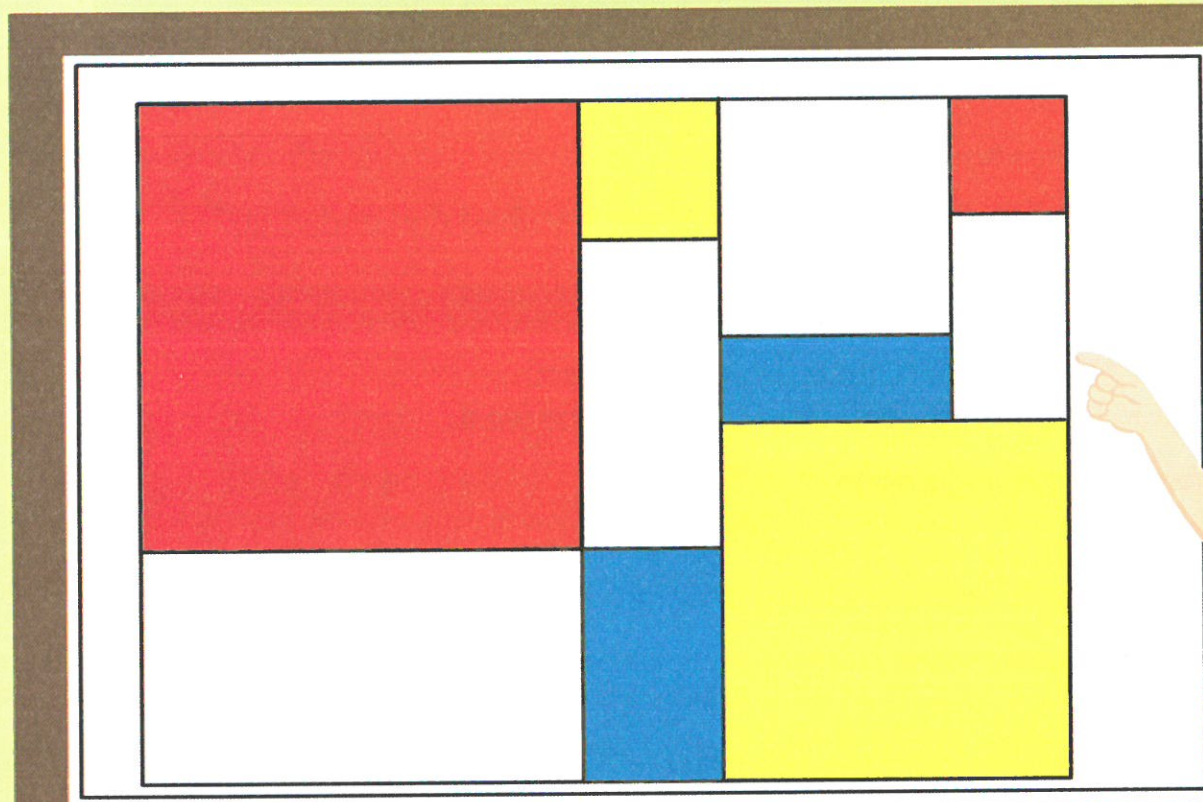
- 3 How many right angles does the hour hand of a clock move from 8 a.m. today to 2 a.m. tomorrow?

Workbook A:  
Put on Your Thinking Cap!  
page 98





What shapes do you see in the picture? Describe the shapes.



## Big Idea

**Squares and rectangles are 4-sided figures with special properties.**

## Lessons

- 1 Properties of Squares and Rectangles
- 2 Drawing Squares and Rectangles



# Properties of Squares and Rectangles

## Identifying properties of squares and rectangles

**Before you learn ...**

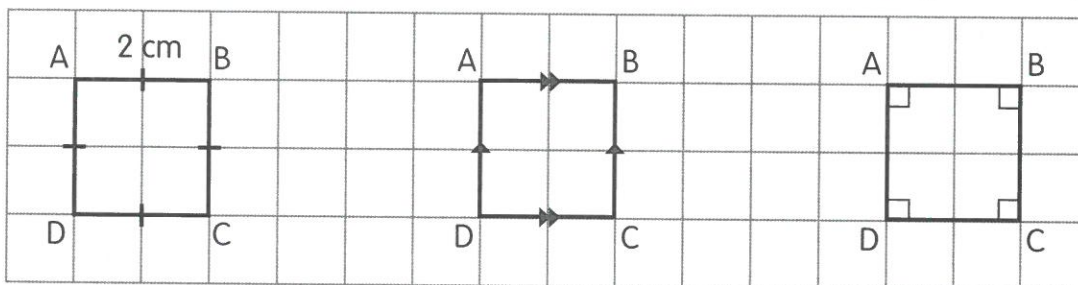
How is a square different from a rectangle?

**Learn**

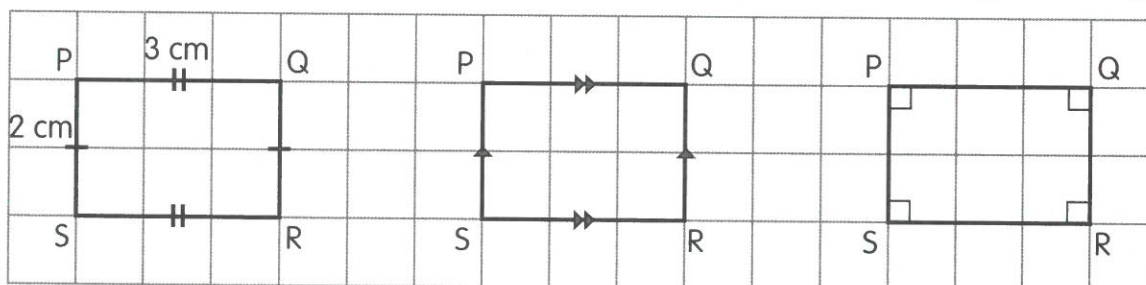
Squares and rectangles are 4-sided figures.

These are the properties of squares and rectangles.

All sides are equal.    Opposite sides are parallel.    All angles are right angles.



Opposite sides are equal.    Opposite sides are parallel.    All angles are right angles.



In square ABCD,  
 $AB = 2\text{ cm}$  and  
 $AB = BC = CD = AD = 2\text{ cm}$ .

In rectangle PQRS,  $PQ = 3\text{ cm}$   
 and  $PQ = SR = 3\text{ cm}$ .  
 $PS = 2\text{ cm}$  and  $PS = QR = 2\text{ cm}$ .

Is a square  
 a rectangle?



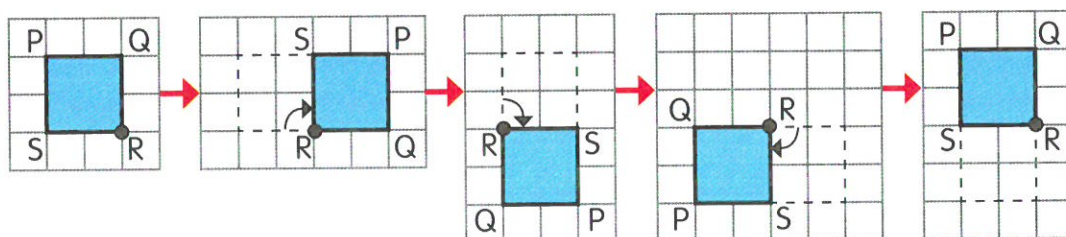


## Hands-on Activity

Rotate and observe shapes.

Work in pairs.

- 1 Rotate square PQRS through four  $\frac{1}{4}$ -turns in the clockwise direction.



Explain to your partner how the orientation of the square changes as it rotates  $90^\circ$ ,  $180^\circ$ ,  $270^\circ$  and  $360^\circ$  in a clockwise direction.

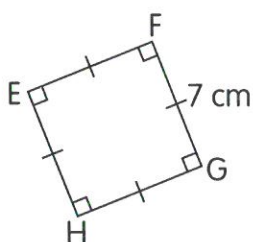
- 2 Switch roles and repeat 1 in the anti-clockwise direction.
- 3 Repeat 1 and 2 with a rectangular piece of paper. Describe what you observe.



## Guided Practice

- 1 Find the lengths of the unknown sides of the square and rectangle.

a

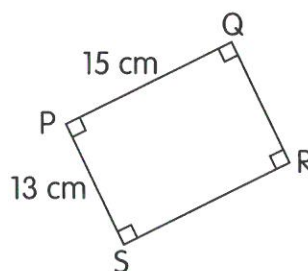


EF =  cm

EH =  cm

HG =  cm

b

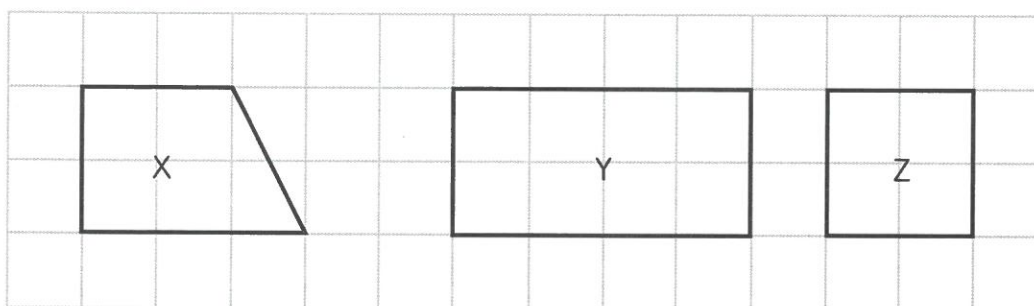


QR =  cm

SR =  cm



- 2 Study the figures drawn on the square grid.



Complete the table to show the properties each figure has.

Property	Figure		
	X	Y	Z
It has four sides.	✓	✓	✓
All of its sides are equal.			
Its opposite sides are equal.			
It has exactly one pair of parallel sides.			
It has exactly two pairs of parallel sides.			
All of its angles are right angles.			

Figure   is a rectangle but **not** a square.

Figure   is **not** a square and **not** a rectangle.

Figure   is both a square and a rectangle.



### Maths Sharing

Compare squares and rectangles.

- 1 Describe a rectangle and a square using these words: **perpendicular**, **parallel** and **angles**.
- 2 List the similarities between a square and a rectangle.
- 3 Discuss how a square is related to a rectangle.

## Finding unknown angles

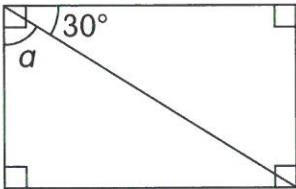
**Before you learn ...**

Fold a square piece of paper into half to form a triangle.

What is the angle between the folded edge and one of the sides of the paper?

**Learn**

Find  $\angle a$ .



$$\begin{aligned}\angle a &= 90^\circ - 30^\circ \\ &= 60^\circ\end{aligned}$$

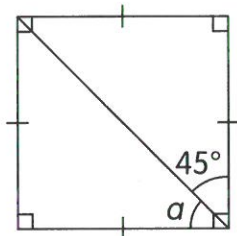
A square or a rectangle has 4 right angles.



### Guided Practice

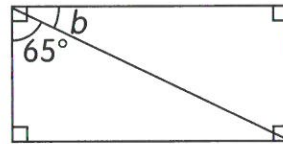
- 1 Find the unknown marked angles in the following squares and rectangles. The following figures are not drawn to scale.

**a**



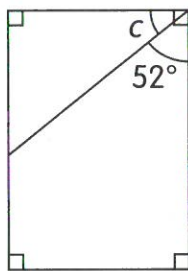
$$\angle a = \boxed{\phantom{000}}^\circ$$

**b**



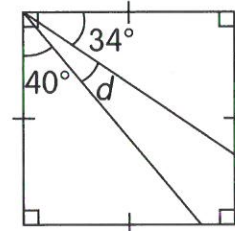
$$\angle b = \boxed{\phantom{000}}^\circ$$

**c**



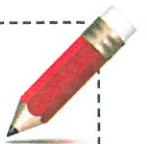
$$\angle c = \boxed{\phantom{000}}^\circ$$

**d**



$$\angle d = \boxed{\phantom{000}}^\circ$$

Workbook A:  
Practice 1,  
pages 99–102





# Lesson 2

## Drawing Squares and Rectangles

### Drawing squares and rectangles

#### Before you learn ...

Show how you would use a ruler, protractor and set-square to check for perpendicular lines in a square and a rectangle.

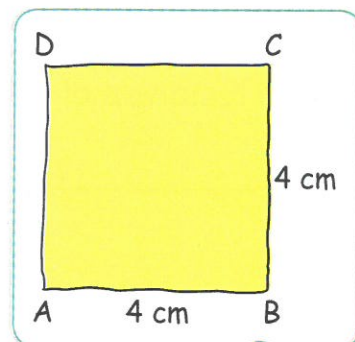
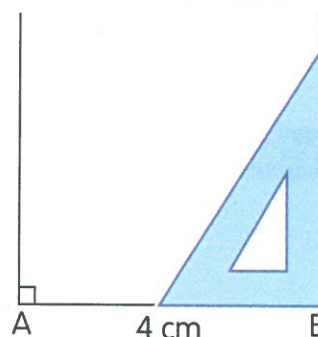
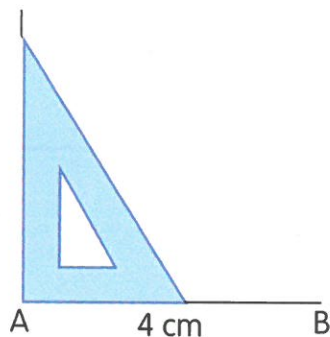
#### Learn

**1** Draw a square ABCD of side 4 cm.

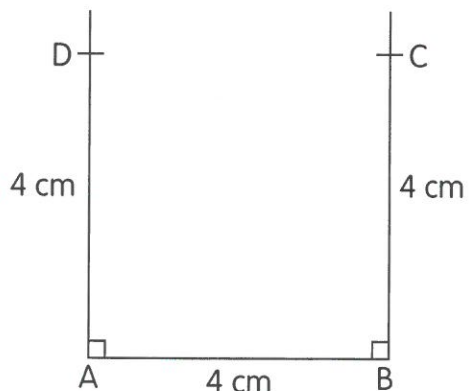
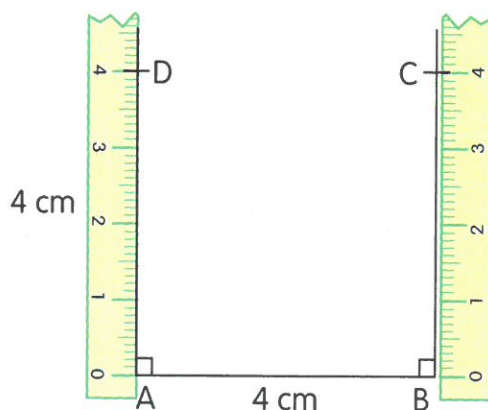
**Step 1** Using a ruler, draw  $AB = 4$  cm.

A 4 cm B

**Step 2** Using a set-square, draw lines at A and B perpendicular to AB.

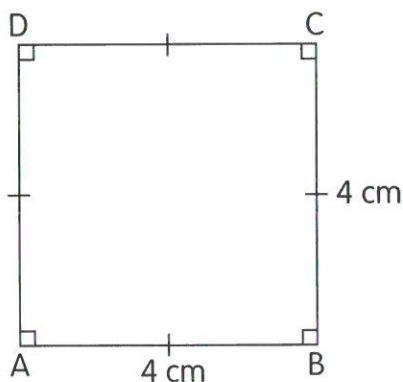


**Step 3** Using a ruler, mark points C and D such that  $AD = 4$  cm and  $BC = 4$  cm.



**Step 4**

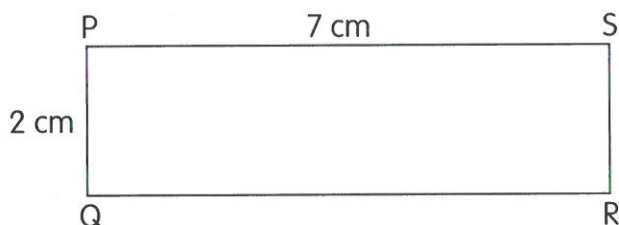
Using a ruler, join points C and D to form a square ABCD. Mark the right angles and equal sides as shown.



You can use a protractor to help you check for right angles at all four corners.



**2** Draw a rectangle of length 7 cm and breadth 2 cm as shown.



Describe the steps to draw the rectangle.



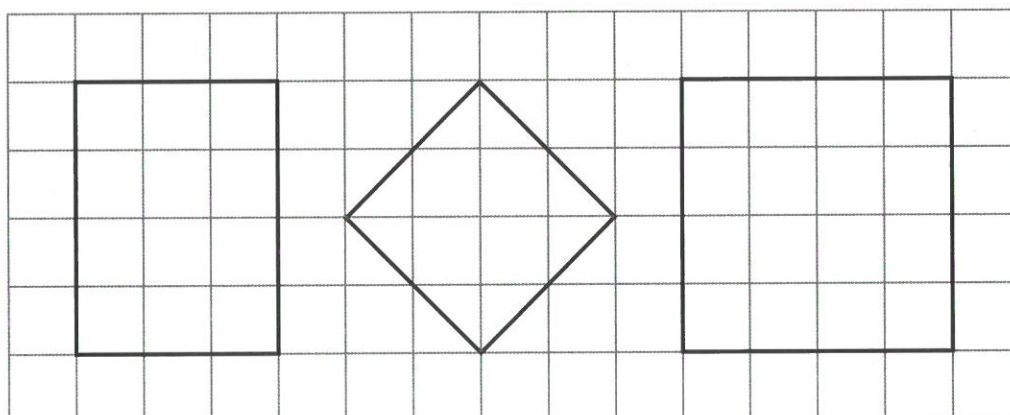
## Hands-on Activity

Draw squares and rectangles.

Work in pairs.

### Station 1

**1** Look at these squares and rectangles. Draw squares and rectangles of different orientations on a square grid. Then, explain to your partner how you draw them.





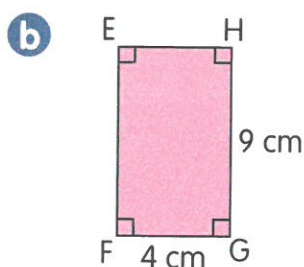
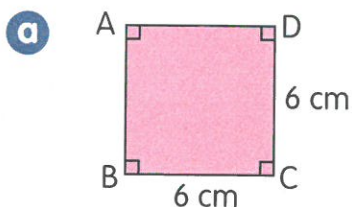
## Station 2

- 1 Sketch the following figures:
  - a a square EFGH of side 8 cm
  - b a rectangle STUV in which  $ST = 9$  cm and  $TU = 6$  cm
- 2 Your partner uses a ruler, set-square and protractor to draw the figures in 1.
- 3 Check that your partner has drawn the figures correctly.

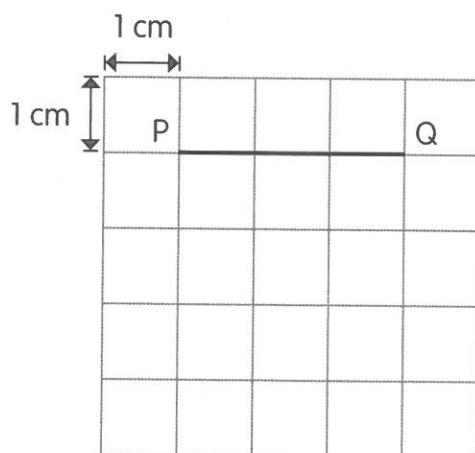


### Guided Practice

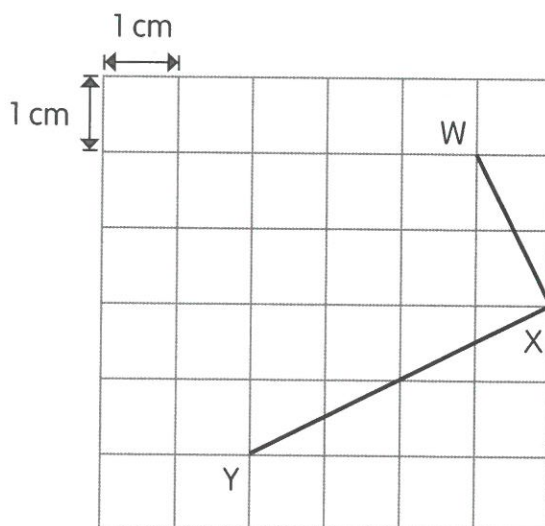
- 1 Using a ruler, protractor and set-square, draw each of the following figures with the given measurements.



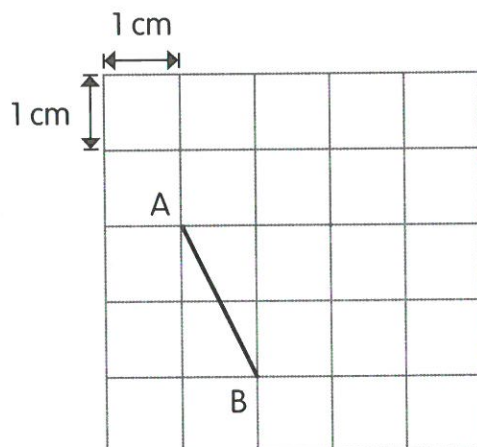
- 2 a Trace line PQ on a 1-cm square grid paper. Then, draw a square PQRS.



- b Trace line WX and XY on a 1-cm square grid paper. Then, draw a rectangle WXYZ.



- 3 Trace line AB on a 1-cm square grid paper. Then, use line AB to draw a square ABCD.

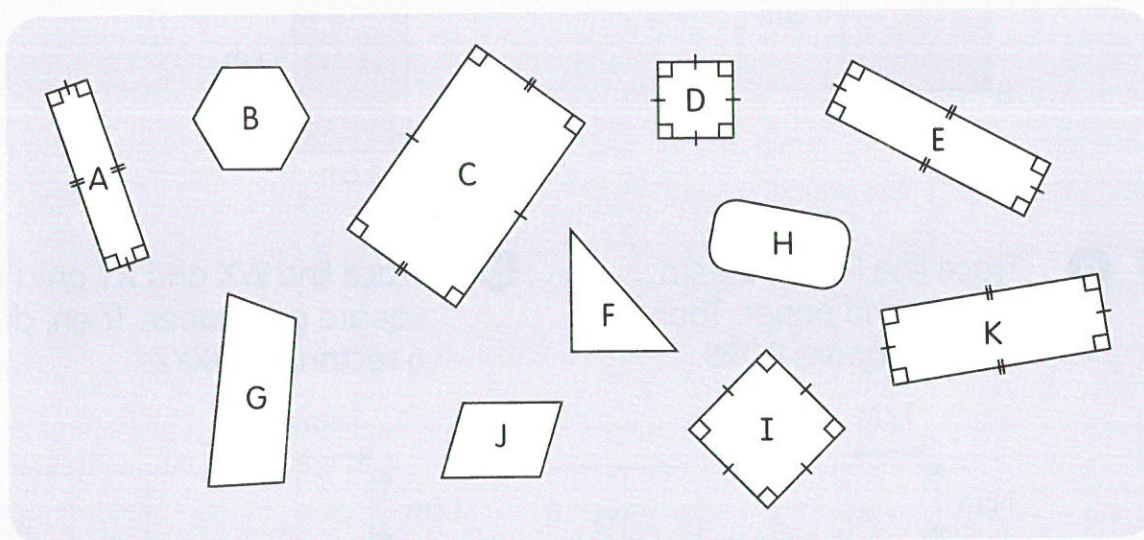


Workbook A:  
Practice 2,  
pages 103–104

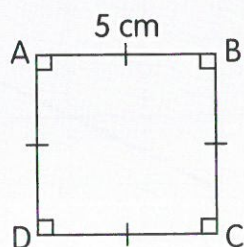


## Chapter 6 Review

- 1 Identify the squares and rectangles.



- 2 Find the lengths of the unknown sides of the square ABCD.



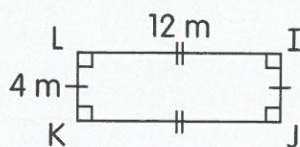
AD =  cm

BC =  cm

DC =  cm



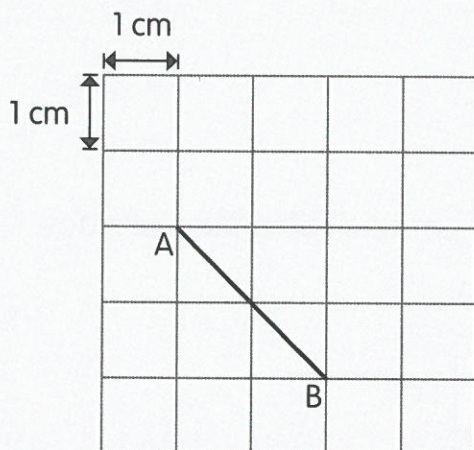
- 3 Find the lengths of the unknown sides of the rectangle.



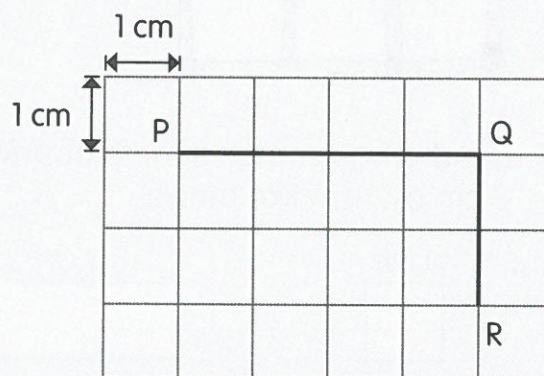
$$IJ = \text{ } m$$

$$JK = \text{ } m$$

- 4 a Trace line AB on a 1-cm square grid paper. Then, draw a square ABCD.



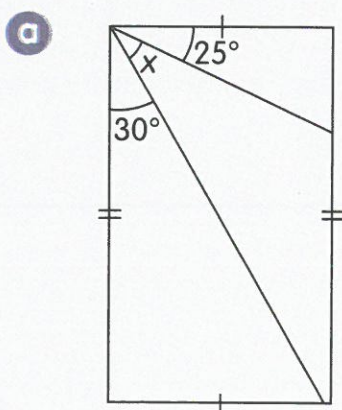
- b Trace lines PQ and QR on a 1-cm square grid paper. Then, draw a rectangle PQRS.



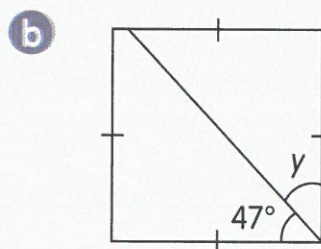
- 5 Using a ruler, protractor and set-square, draw each of the following figures with the given measurements:

- a a square PQRS of side 6 cm  
b a rectangle WXYZ in which  $WX = 5$  cm and  $XY = 4$  cm

- 6 Find the unknown angles in each rectangle and square.



$\text{ }^\circ$



$\text{ }^\circ$

Workbook A:  
Chapter 6 Review, pages 105–108  
Maths Journal, page 109

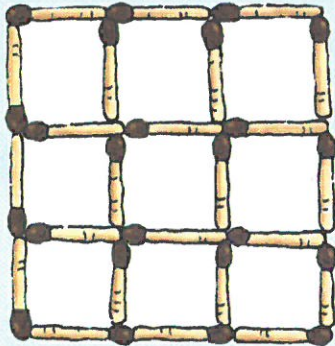




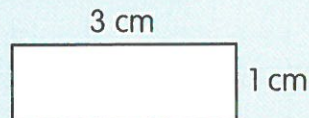
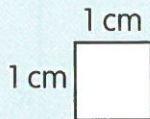


## Put on Your Thinking Cap!

- 1 Remove 8 sticks to leave 2 squares behind.



- 2 Sandra has some squares of side 1 cm and rectangles of sides 3 cm by 1 cm like these:



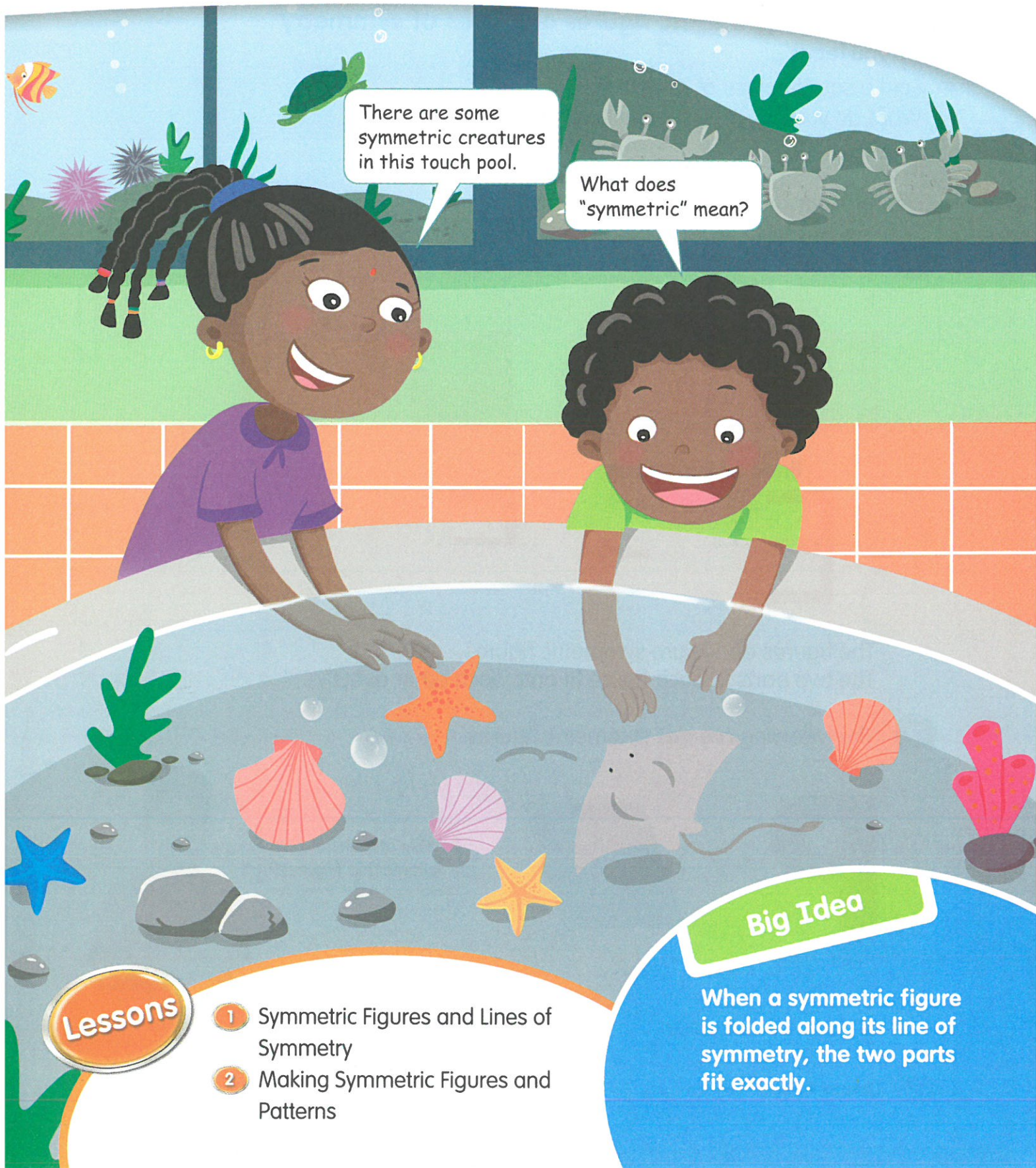
- a Help Sandra make a big square of side 3 cm using the given squares and rectangles. How many such squares and rectangles did you use?
- b Help Sandra make a big rectangle of length 4 cm and breadth 3 cm using the above squares and rectangles. How many such squares and rectangles did you use?

Workbook A:  
Put on Your Thinking Cap!  
page 110





# Symmetry





# Lesson 1

## Symmetric Figures and Lines of Symmetry

### Identifying symmetric figures and lines of symmetry

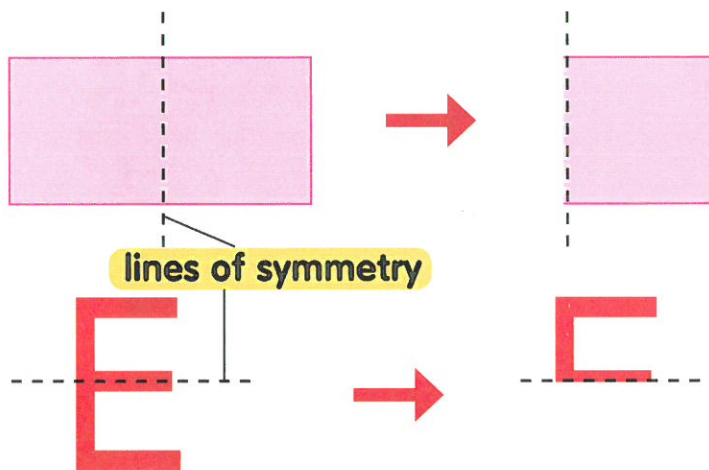
**Before you learn ...**

Fold a square piece of paper into half.  
What do you notice about the two halves?

**Learn**

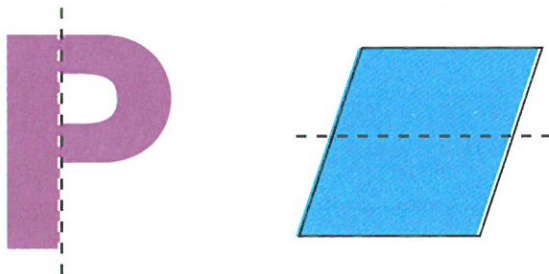
### Identify symmetric figures

- 1 Fold the following figures along the dotted line.



The figures above are symmetric figures.  
The two parts in each figure fit onto each other exactly.

- 2 The following are **not** symmetric figures.



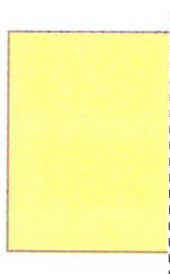
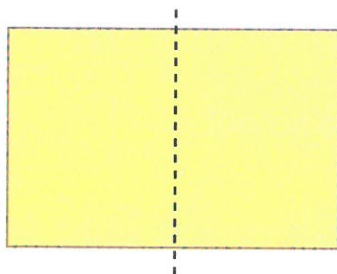
Why are these not symmetric figures?





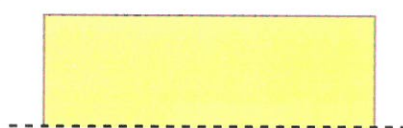
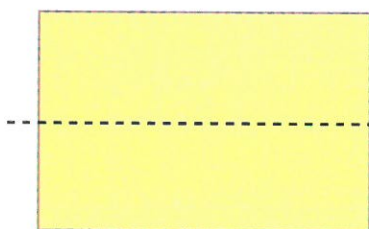
## Identify lines of symmetry

- 3 Fold the rectangle along the dotted line as shown.



The two halves fit exactly.  
They are reflections of each other.

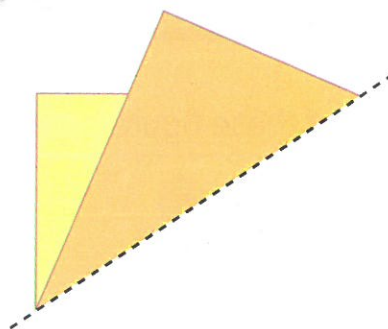
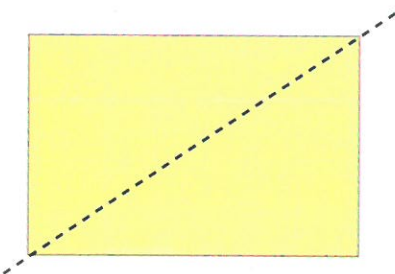
The dotted line is a line of symmetry of the rectangle.



The two halves fit exactly.  
They are reflections of each other.

The dotted line is another line of symmetry of the rectangle.

A symmetric figure can have more than one line of symmetry.



The two halves **do not** fit exactly.  
They are **not** reflections of each other.

The dotted line is **not** a line of symmetry of the rectangle.



## Hands-on Activity

### Station 1 Look for symmetric figures.

Work in groups.

- 1 Look for examples of symmetric figures around the school.
- 2 Take pictures of the symmetric figures.
- 3 Discuss how each figure is symmetric.
- 4 Identify a line of symmetry for each figure.
- 5 Share what you have found with other groups.

### Station 2 Find lines of symmetry.

Work in pairs.

- 1 Your teacher will provide you with some shapes.
- 2 Select a dotted line that is the line of symmetry for each shape.
- 3 Cut out the shapes. Fold along the dotted line to check your answer in 2.
- 4 Place a mirror along the line of symmetry. What do you notice?



## Guided Practice

- 1 Which of these figures are symmetric? 



A



B



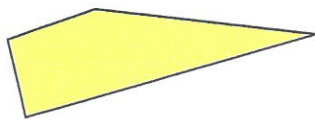
C



D



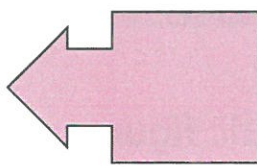
2 Which of these are symmetric figures?



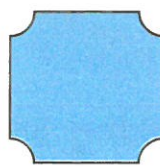
A



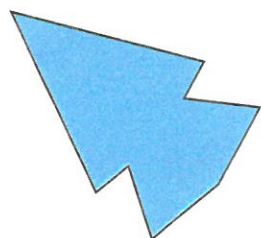
B



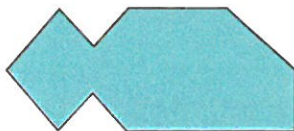
C



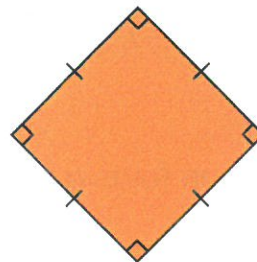
D



E

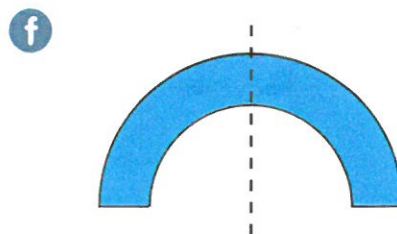
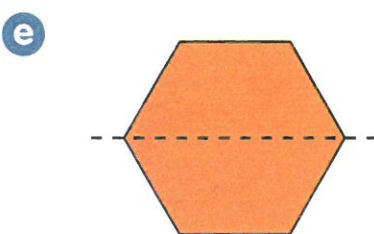
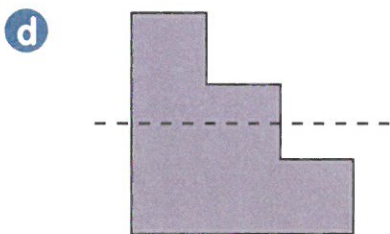
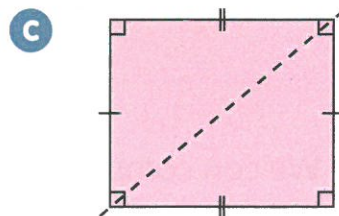
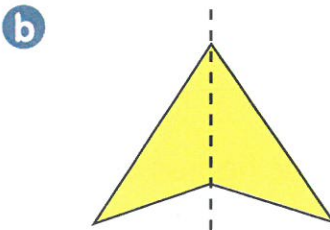
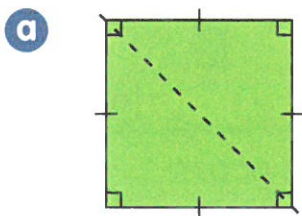


F



G

3 In each of the following figures, is each dotted line a line of symmetry?



Workbook A:  
Practice 1,  
pages 111–114



# Lesson 2

## Making Symmetric Figures and Patterns

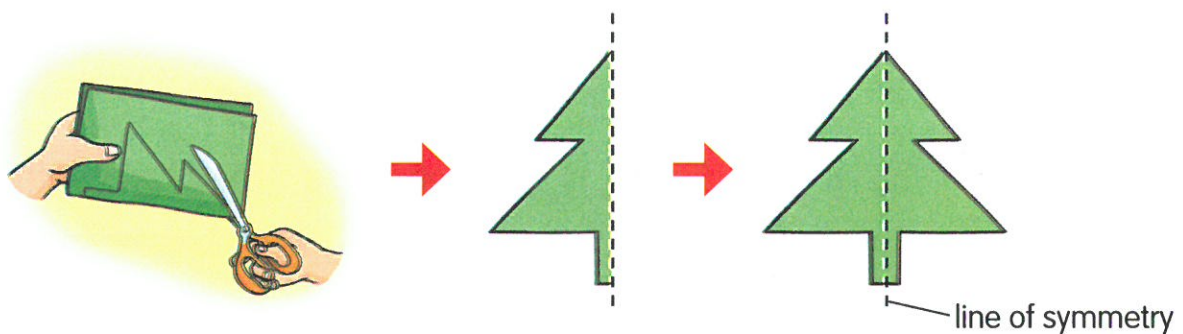
### Making symmetric figures and patterns

**Before you learn ...**

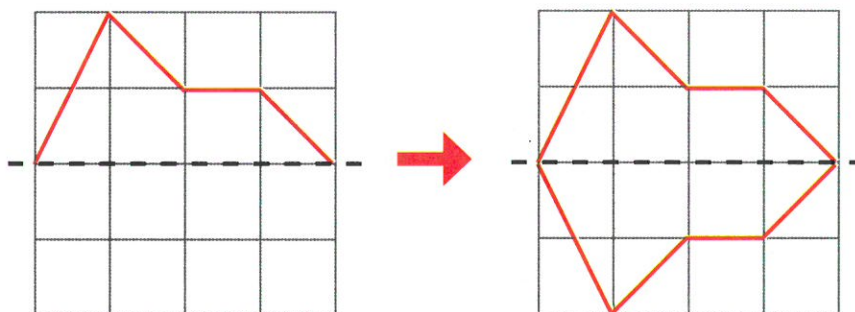
Draw and cut out a symmetric butterfly from a piece of paper.  
Explain how you did it.

**Learn**

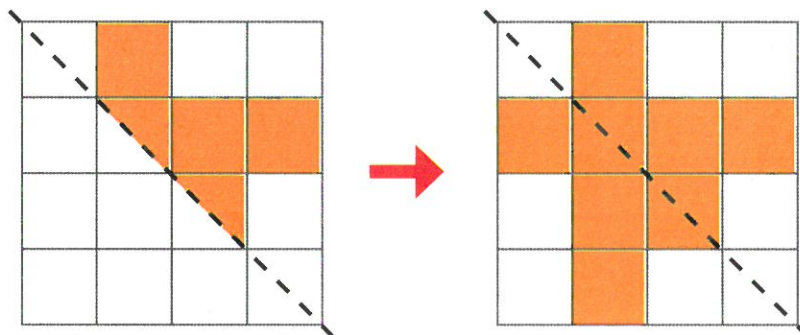
- Jason folds a piece of paper into half and cuts out a symmetric figure.



- We can complete symmetric figures on a square grid paper.



- We can create symmetric patterns on a square grid paper.

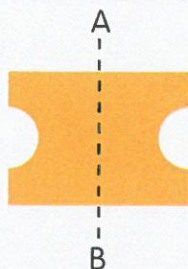




## Chapter 7 Review

1 Which of the dotted lines are lines of symmetry?

a



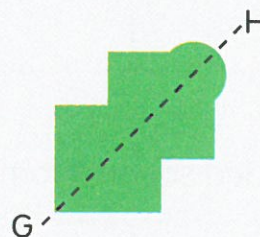
b



c

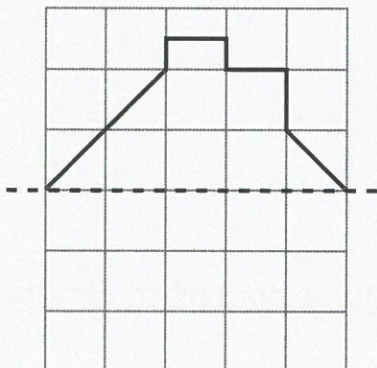


d

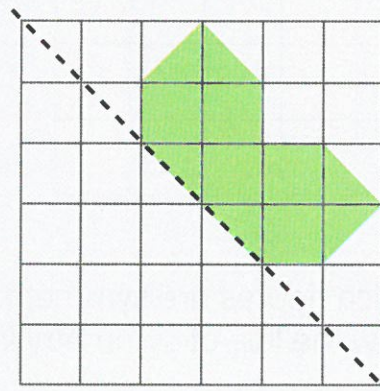


2 Trace the figures on a 1-cm square grid paper. Then, complete each symmetric figure with the dotted line as a line of symmetry.

a



b



Workbook A:  
Chapter 7 Review, pages 117–119  
Maths Journal, page 120

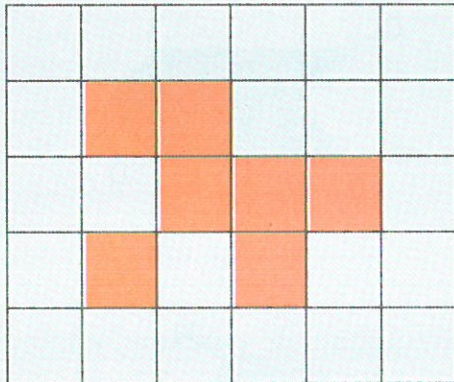




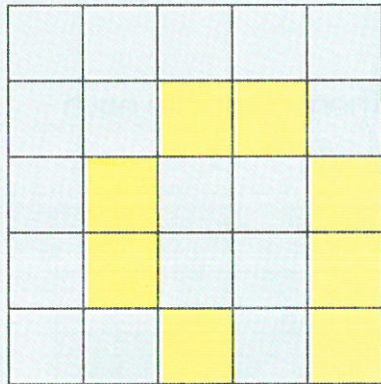


## Put on Your Thinking Cap!

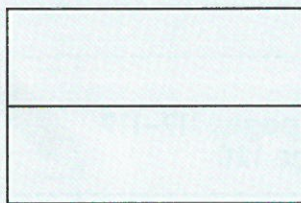
- 1 Add three unit squares to the figure to make it symmetric.



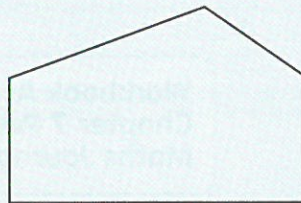
- 2 Do the shaded squares form a symmetric pattern? Explain.



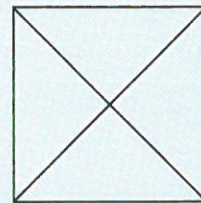
- 3 Which figures are symmetric? Trace the figures on a piece of paper and draw the line of symmetry in each figure.



A



B



C

Workbook A:  
Put on Your Thinking Cap!  
pages 121–122  
Review 3, pages 123–128  
Revision 1, pages 129–144





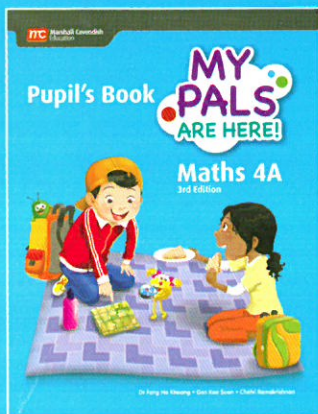
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**Maths (3rd Edition)** is a widely adopted series in Singapore schools. It is written in line with the 2013 primary mathematics syllabus and initiatives from the Ministry of Education. Drawing from extensive research and feedback from teachers and pupils, the third edition has evolved to further strengthen mathematical concept development through the inclusion of new features to meet the needs of educators, pupils and parents.

In this edition, emphasis is given to the three clusters of mathematical processes:

Reasoning, communications and connections

- **Chapter opener** jump-starts learning in a fun and engaging way through poems, stories and common scenarios meant to capture the pupils' interest.
- **Maths Sharing** offers opportunities for self-reflection.
- **App-tivity** offers opportunities for mastery of concepts through interactive applets.

Applications

- **Hands-on Activity** reinforces skills, concepts and problem-solving strategies through cooperative learning.
- **Let's Explore** provides opportunities to carry out investigative activities to apply learning.

Thinking skills and heuristics

- **Learn** introduces concepts through short tasks that involve concrete materials, and poses thought-provoking questions to help develop the pupils' thinking skills.
- **Put on Your Thinking Cap!** challenges pupils to solve non-routine questions.

This edition also continues to facilitate the understanding of mathematical concepts through scaffolded learning:

- **Guided Practice** allows pupils to practise new concepts with the help of the teacher.
- **Review** enables teachers to assess pupils' understanding and helps pupils to reinforce concepts learnt.

The direct correlation of the Workbook to the Pupil's Book allows for practice, assessment and development of problem-solving and thinking skills. Reviews and Revisions consolidate learning.



**Maths (3rd Edition)** comprises:

- Pupil's Book in 2 parts
- Workbook in 2 parts

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