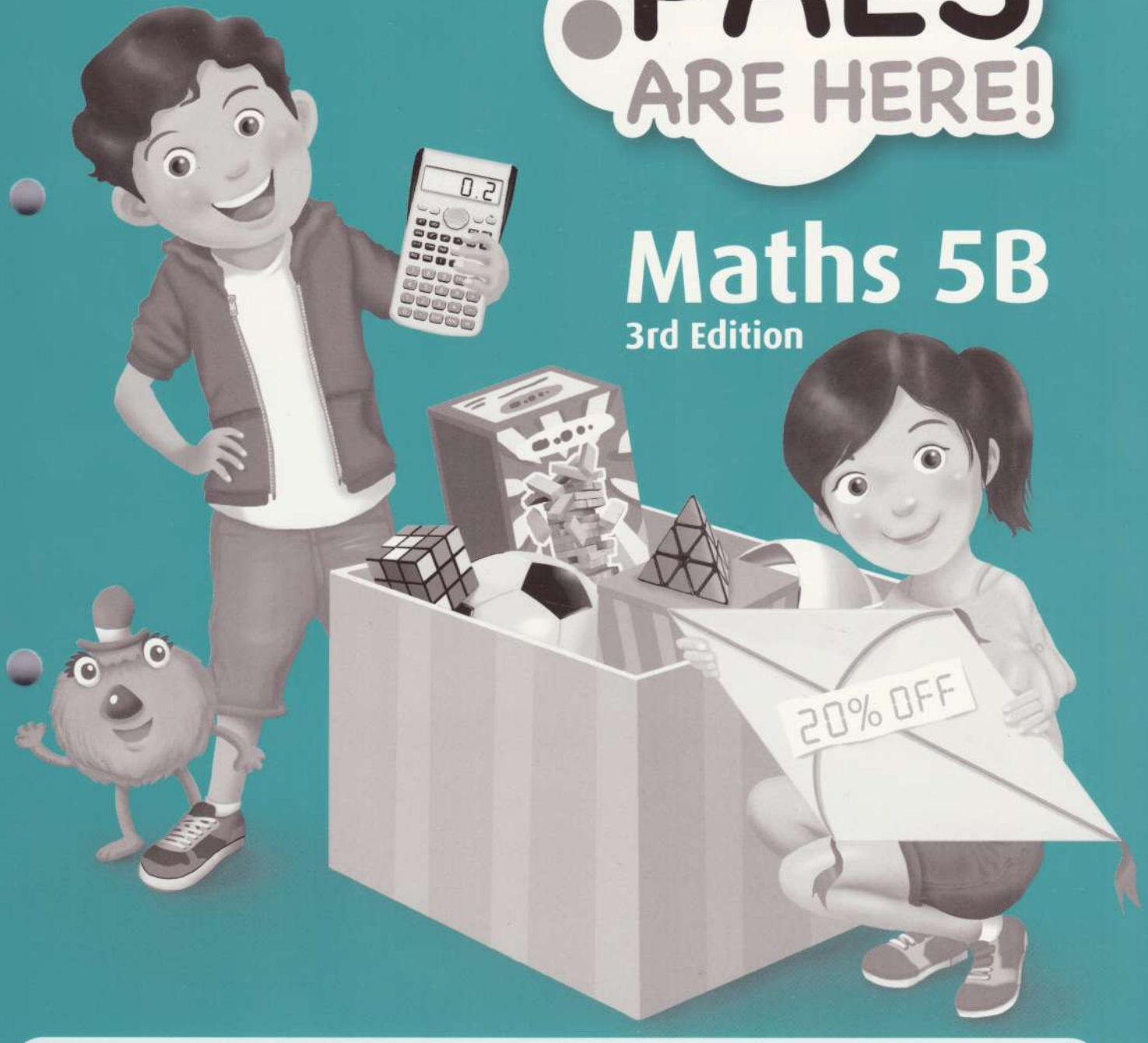
Marshall Cavendish Education

MY PALS ARE HERE!

Workbook



Maths 5B

3rd Edition

Name: _____ Class: _____

Dr Fong Ho Kheong • Gan Kee Soon • Chelvi Ramakrishnan

Workbook

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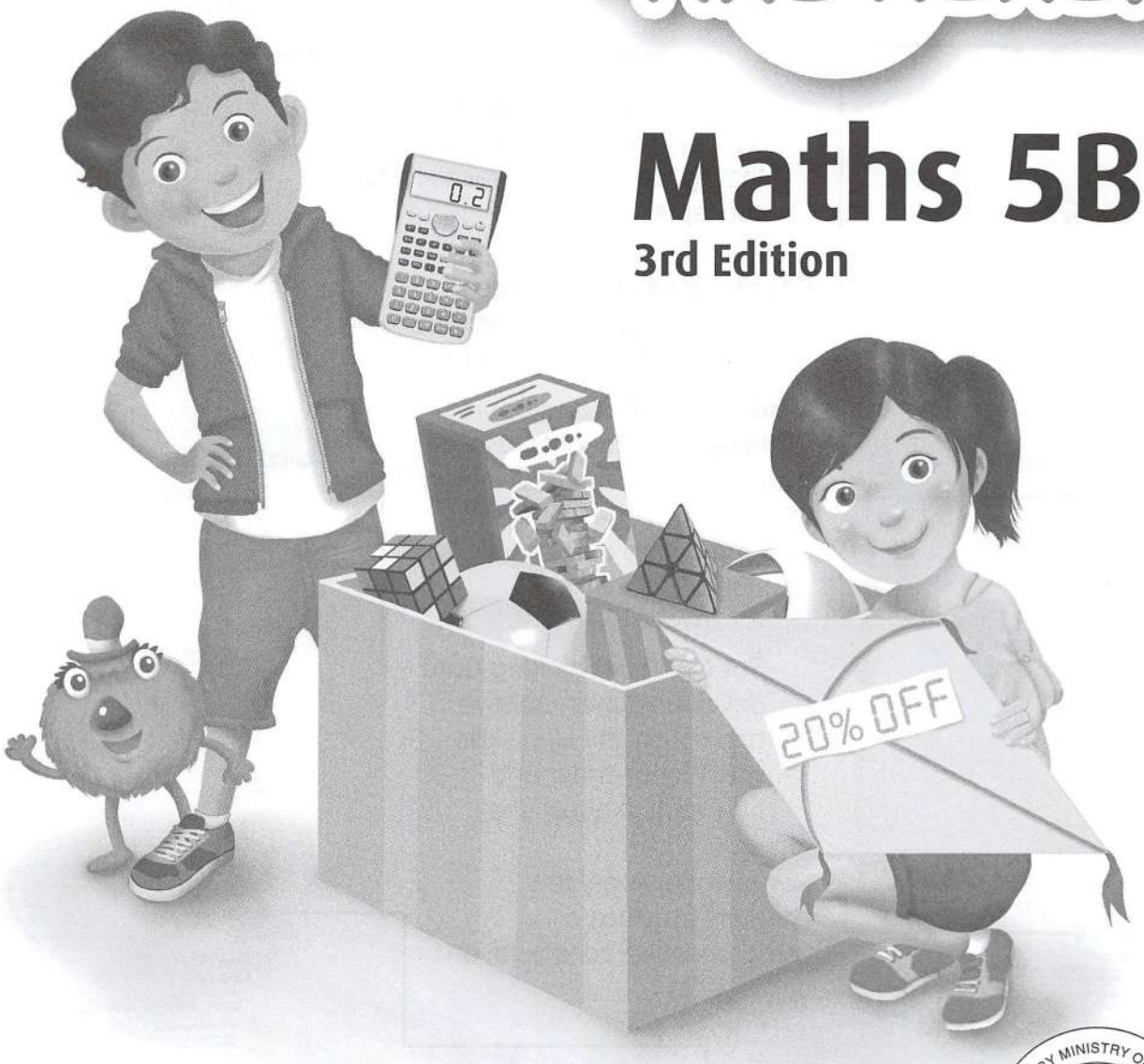


Dr Fong Ho Kheong • Gan Kee Soon • Chelvi Ramakrishnan

APPROVED BY MINISTRY OF EDUCATION SINGAPORE for use from 2017–2021

Marshall Cavendish Education

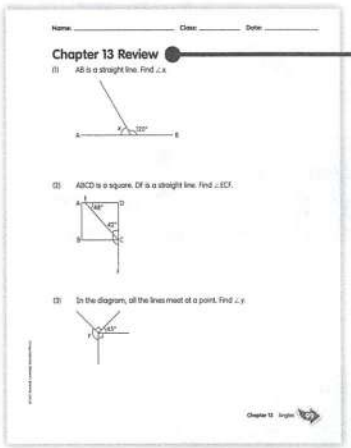
Preface

My Pals Are Here! Maths (3rd Edition) is a comprehensive, task-based and learner-centred programme designed to provide pupils with a solid foundation in mathematics and opportunities to become efficient problem solvers.

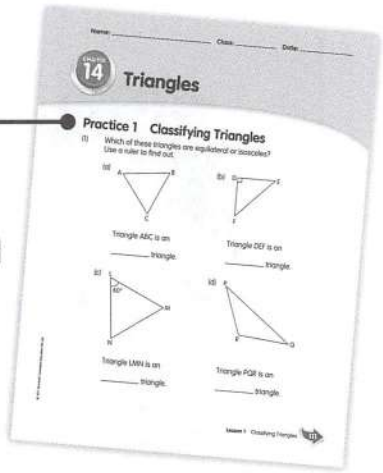
In this edition of the Workbook, pupils are given opportunities to master concepts learnt.

Questions marked with an asterisk (*) are higher-order thinking questions meant to stimulate pupils' thinking.

A calculator may be used when  appears.

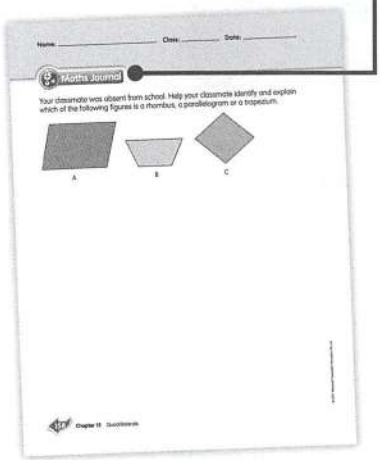

Chapter 13 Review

Chapter Review reinforces learning through questions that facilitate mastery of concepts.

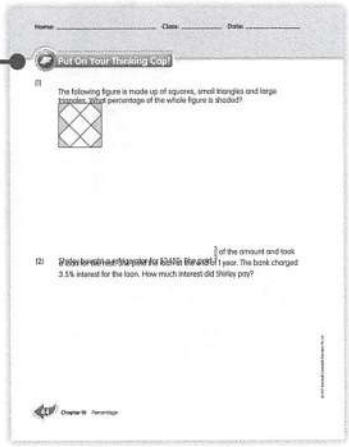

Triangles

Practice 1 Classifying Triangles

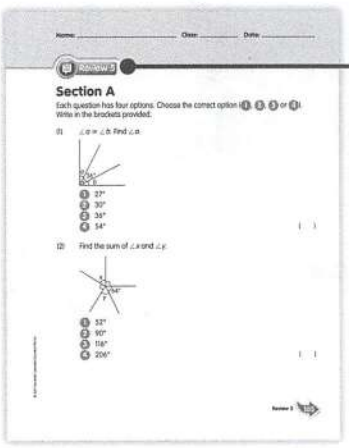
Practice provides a quick reinforcement through questions that require pupils to recall facts and concepts.


Maths Journal

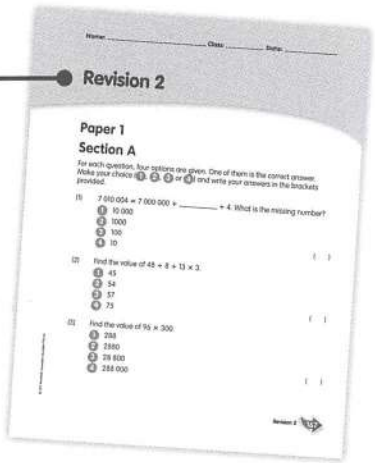
Maths Journal allows pupils to share their thoughts with their teachers, create their own mathematics questions and become aware of their own mathematical thinking.


Put On Your Thinking Cap!

Put On Your Thinking Cap! develops pupils' creative and critical thinking skills with higher-order and non-routine questions.


Section A

Review after every few chapters provides a comprehensive consolidation of concepts.


Revision 2

Paper 1

Section A

Revision provides a summative assessment of pupils' understanding. Questions are purposefully crafted to determine pupils' learning progress.

Enjoy learning mathematics with **My Pals Are Here! Maths (3rd Edition)**!

CONTENTS

Name: _____ Class: _____ Date: _____

Decimals

Practice 1 Multiplying by 10, 100, 1000 and Their Multiples

(1) Multiply.

(a) $0.6 \times 10 =$ _____

(b) $0.37 \times 10 =$ _____

(c) $8.15 \times 10 =$ _____

(d) $10 \times 17.52 =$ _____

(e) $10 \times 0.264 =$ _____

(f) $10 \times 3.028 =$ _____

(2) Fill in the blanks.

(a) $1.907 \times$ _____ $= 19.07$

(b) $2.74 \times$ _____ $= 27.4$

(c) _____ $\times 10 = 8.8$

(d) _____ $\times 10 = 534.2$

(3) Multiply.

(a) $0.3 \times 70 =$ _____

(b) $0.25 \times 30 =$ _____

(c) $9.04 \times 60 =$ _____

(d) $50 \times 13.24 =$ _____

(e) $90 \times 0.128 =$ _____

(f) $80 \times 5.179 =$ _____

(4) Multiply.

(a) $0.04 \times 100 =$ _____

(b) $0.18 \times 100 =$ _____

(c) $4.9 \times 1000 =$ _____

(d) $100 \times 16.47 =$ _____

(e) $100 \times 0.134 =$ _____

(f) $1000 \times 63.425 =$ _____

(5) Fill in the blanks.

(a) $108.1 \times$ _____ $= 10\,810$

(b) $50.95 \times$ _____ $= 50\,950$

(c) _____ $\times 100 = 909.7$

(d) _____ $\times 1000 = 2350$

(6) Multiply.

(a) $0.7 \times 400 =$ _____

(b) $0.36 \times 200 =$ _____

(c) $6.09 \times 8000 =$ _____

(d) $900 \times 10.23 =$ _____

(e) $300 \times 0.105 =$ _____

(f) $5000 \times 3.003 =$ _____

Name: _____ Class: _____ Date: _____

Practice 2 Dividing by 10, 100, 1000 and Their Multiples

(1) Divide.

(a) $0.2 \div 10 =$ _____

(b) $0.84 \div 10 =$ _____

(c) $3.19 \div 10 =$ _____

(d) $34.95 \div 10 =$ _____

(e) $102.8 \div 10 =$ _____

(f) $713.02 \div 10 =$ _____

(2) Fill in the blanks.

(a) $1.84 \div$ _____ $= 0.184$

(b) $0.93 \div$ _____ $= 0.093$

(c) _____ $\div 10 = 2.705$

(d) _____ $\div 10 = 62.09$

(3) Divide.

(a) $4 \div 20 =$ _____

(b) $36 \div 40 =$ _____

(c) $27 \div 60 =$ _____

(d) $67.2 \div 70 =$ _____

(e) $1.02 \div 30 =$ _____

(f) $10.35 \div 50 =$ _____

(4) Divide.

(a) $5.7 \div 100 =$ _____

(b) $94.3 \div 100 =$ _____

(c) $4008 \div 100 =$ _____

(d) $70 \div 1000 =$ _____

(e) $9090 \div 1000 =$ _____

(f) $30\,400 \div 1000 =$ _____

(5) Fill in the blanks.

(a) $90 \div$ _____ $= 0.9$

(b) _____ $\div 100 = 0.62$

(c) $13\,870 \div$ _____ $= 13.87$

(d) _____ $\div 1000 = 2.053$

(6) Divide.

(a) $180 \div 200 =$ _____

(b) $201 \div 300 =$ _____

(c) $56\,640 \div 8000 =$ _____

(d) $15\,600 \div 5000 =$ _____

(e) $249\,000 \div 6000 =$ _____

(f) $596\,400 \div 7000 =$ _____

Name: _____ Class: _____ Date: _____

Practice 3 Converting Measurements

(1) Fill in the blanks.

(a) 1.53 m = _____ cm

(b) 2.07 km = _____ m

(c) 19.875 kg = _____ g

(d) 3.4 ℓ = _____ ml

(2) Fill in the blanks.

(a) 12.03 m = _____ m _____ cm

(b) 217.9 km = _____ km _____ m

(c) 3.64 kg = _____ kg _____ g

(d) 4.007 ℓ = _____ ℓ _____ ml

(3) Fill in the blanks.

(a) 450 cm = _____ m

(b) 6.28 km = _____ m

(c) 7950 g = _____ kg

(d) 59 ml = _____ ℓ

(4) Fill in the blanks.

(a) 21 m 7 cm = _____ m

(b) 42 km 6 m = _____ km

(c) 9 kg 55 g = _____ kg

(d) 100 ℓ 850 ml = _____ ℓ

Name: _____ Class: _____ Date: _____

Practice 4A Solving Word Problems

(1) A kilogram of rice costs $2.05. What is the cost of 30 kg of the rice?

Ans: _____

(2) A motorist drove from his home to his office. The distance between his home and his office was 32.27 km. After driving 15.65 km, he stopped at a petrol kiosk. How much further did he have to drive before he arrived at his office?

Ans: _____

(3) There were 100 workers in a factory. Each worker worked 40 h a week and was paid $6.50 an hour. How much did the company have to pay the 100 workers altogether each week?

Ans: _____

(4) A shop owner bought 30 files and some dictionaries. He paid $82.50 for the files. Each dictionary cost 10 times as much as a file. What was the cost of each dictionary?

Ans: _____

 (5) One lap of a racing track measured 5.04 km. During a race of 61 laps, a driver stopped to refuel after completing 29 laps. How far was he from the finish line? Give your answer in kilometres.

Ans: _____

Name: _____ Class: _____ Date: _____

Practice 4B Solving Word Problems

(1) Madam Hasnah bought 300 m of ribbon to make some decorative flowers. She used 1.22 m to make one large flower. She made 200 such large flowers and 100 smaller flowers with the remaining ribbon. What was the length of ribbon used to make one small flower?

Ans: _____

(2) 1 kilogram of tomatoes cost $0.90. Jenna bought 2.5 kg of tomatoes. She also bought a bag of detergent for $8.95. How much change did Jenna receive if she gave the cashier $20?

Ans: _____

(3) Pauline mixed 0.32 ℓ of syrup with 12 times as much water to make orange squash. She spilt 1.28 ℓ of orange squash. Then, she poured the remaining orange squash equally into 4 bottles. How much orange squash was there in each bottle? Give your answer in litres.

Ans: _____

(4) Container X contained 1200 g of sand. Container Y contained 7.2 kg of sand. After an equal amount of sand was removed from each container, Container Y now has 7 times as much sand as Container X. How much sand was removed from each container? Give your answer in kilograms.

Ans: _____

(5) Mrs Rohit gave a total of $64.90 to her three sons. The eldest son received $4.30 more than the youngest son. The second son received $7.80 less than the youngest son. How much did the eldest son receive?

Ans: _____

Name: _____ Class: _____ Date: _____

Chapter 9 Review

(1) Multiply.

(a) $20.15 \times 10 =$ _____ (b) $1.08 \times 30 =$ _____

(c) $56.09 \times 100 =$ _____ (d) $10.7 \times 500 =$ _____

(e) $3.002 \times 1000 =$ _____ (f) $6.29 \times 7000 =$ _____

(2) Divide.

(a) $4.87 \div 10 =$ _____ (b) $92.7 \div 90 =$ _____

(c) $62.1 \div 100 =$ _____ (d) $781.2 \div 300 =$ _____

(e) $57 \div 1000 =$ _____ (f) $32\,800 \div 4000 =$ _____

(3) Fill in the blanks.

(a) 2.4 km = _____ km _____ m

(b) 18.45 ℓ = _____ ℓ _____ ml

(c) 30 087 g = _____ kg _____ g

(d) 106 cm = _____ m _____ cm

(4) Fill in the blanks.

(a) 3.005 × _____ = 30.05

(b) _____ ÷ 10 = 7.904

(c) _____ × 10 = 824

(d) 235.1 ÷ _____ = 23.51

(e) 0.419 × _____ = 4.19

(f) _____ ÷ 10 = 0.314

(5) Fill in the blanks.

(a) $6.046 \times$ _____ $= 604.6$

(b) _____ $\div 100 = 6.08$

(c) _____ $\times 100 = 9320$

(d) $3165 \div$ _____ $= 3.165$

(e) $5.013 \times$ _____ $= 5013$

(f) _____ $\div 1000 = 9.886$

(6) When a box contains 50 identical balls, it has a mass of 13.9 kg. The empty box has a mass of 400 g. Find the mass of each ball in kilograms.

Ans: _____

(7) A plumber had two pipes. The ratio of the length of the longer pipe to the shorter pipe was 9 : 2. When he cut 1.65 m from the longer pipe, the remaining length was 3 times that of the shorter pipe. Find the length of the shorter pipe in metres.

Ans: _____

(8) A bag contained some 20-cent and 50-cent coins. There were 14 fewer 50-cent coins than 20-cent coins. The total amount of money in the bag was $27.30. How many 50-cent coins were there?

Ans: _____

Name: _____ Class: _____ Date: _____

Maths Journal

In this chapter, you have learnt about decimals and conversion.
What is the most difficult part in learning decimals and conversion? Why?

Name: _____ Class: _____ Date: _____

Put On Your Thinking Cap!

(1) Ethan sold some watches at $14 each and 20 bookmarks at $1.50 each. Roy sold the same number of watches at $13.50 each and 20 bookmarks at $1.80 each. They collected the same amount of money. How many watches did Ethan sell?

(2) The total mass of 6 bottles of milk and 9 bottles of apple juice was 3.3 kg.
The total mass of 3 bottles of milk and 4 bottles of apple juice was 1.56 kg.
Find the mass of a bottle of apple juice in kilograms.

Name: _____ Class: _____ Date: _____

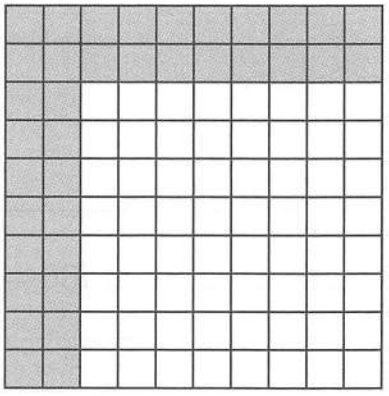
CHAPTER 10

Percentage

Practice 1 Percent

(1) Each figure is divided into 100 equal parts. Fill in the blanks.

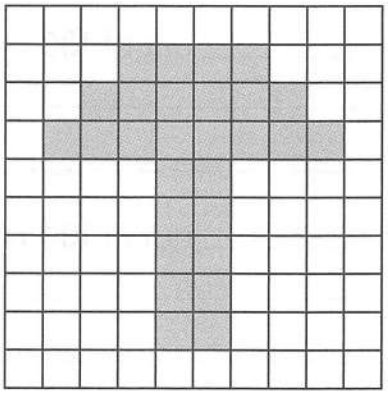
(a)



_____% of the whole figure is shaded.

_____% of the whole figure is **not** shaded.

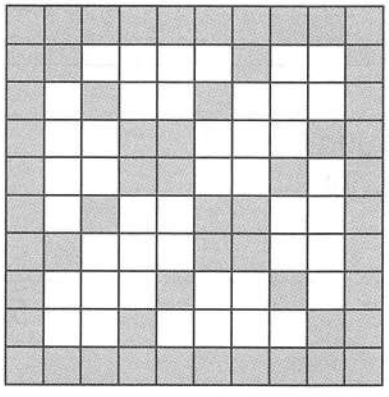
(b)



_____% of the whole figure is shaded.

_____% of the whole figure is **not** shaded.

(c)

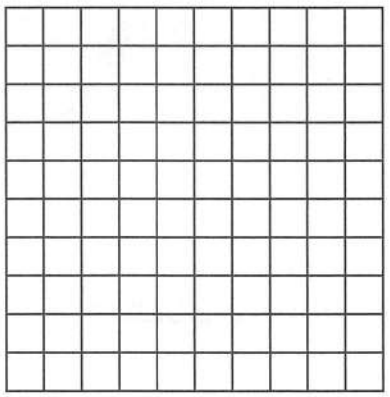


_____% of the whole figure is shaded.

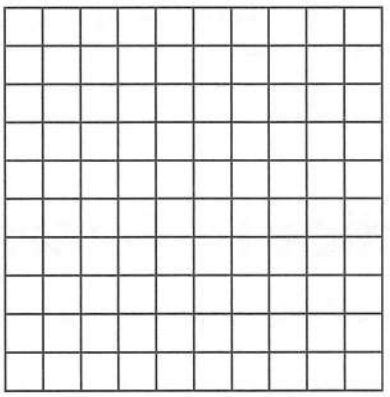
_____% of the whole figure is **not** shaded.

(2) Each figure is divided into 100 equal parts.

(a) Shade 17% of the whole figure.



(b) Shade 50% of the whole figure.



(3) Fill in the blanks.

A: 43 out of 100 = _____%	_____ out of 100 = 1% :U
I: 5 out of 100 = _____%	_____ out of 100 = 10% :E
P: 90 out of 100 = _____%	_____ out of 100 = 87% :N
B: 21 out of 100 = _____%	_____ out of 100 = 2% :L

Where can the world's largest bat be found?
Match the letters to the answers to find out.

_____	_____	_____	_____	_____	_____	_____	_____	_____
90	1	2	43	1	1	21	5	87

Name: _____ Class: _____ Date: _____

Practice 2 Percentages as Fractions and Decimals

(1) Express each percentage as a fraction in its simplest form.

(a) 23%

(b) 90%

(c) 48%

(d) 60%

(e) 50%

(f) 82%

(g) 25%

(h) 65%

(2) Express each percentage as a decimal.

(a) 45%

(b) 89%

(c) 10%

(d) 3%

(e) 60%

(f) 55%

(g) 1%

(h) 31%

Name: _____ Class: _____ Date: _____

Practice 3 Decimals and Fractions as Percentages

(1) Express each decimal as a percentage.

(a) 0.28

(b) 0.64

(c) 0.3

(d) 0.07

(2) Express each fraction as a percentage.

(a) $\frac{4}{5}$

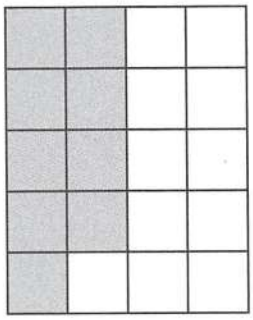
(b) $\frac{19}{25}$

(c) $\frac{63}{90}$

(d) $\frac{78}{200}$

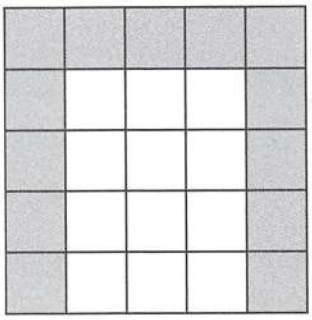
(3) Fill in the blanks.

(a)



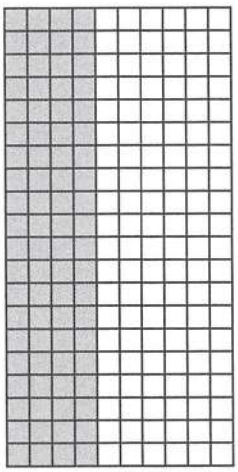
	Fraction	Decimal	Percentage
Shaded			
Unshaded			

(b)



	Fraction	Decimal	Percentage
Shaded			
Unshaded			

(c)



	Fraction	Decimal	Percentage
Shaded			
Unshaded			

Name: _____ Class: _____ Date: _____

Practice 4 Percentage of a Quantity

(1) Find the value of each of the following.

(a) 32% of 50 kg

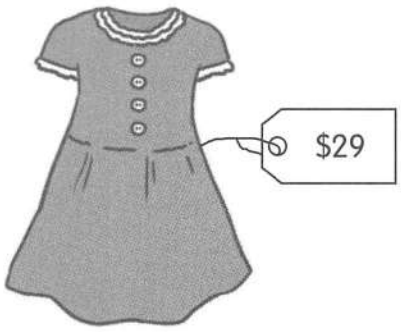
(b) 35% of 80 ℓ

(c) 75% of 16 cm

(d) 40% of 24 km

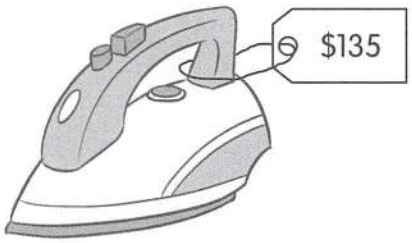
(2) Find the amount of discount for each of the following items.

(a)



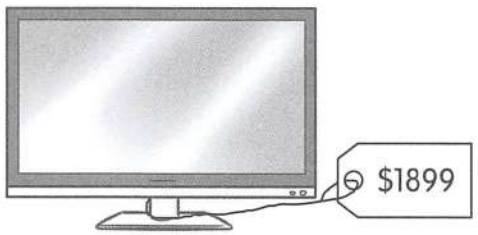
Discount = 15%

(b)



Discount = 23%

(c)

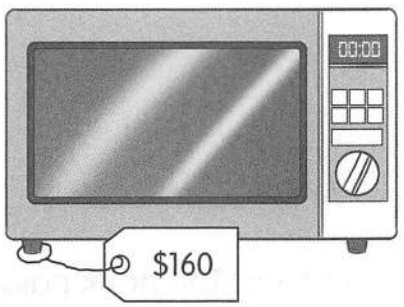


Discount = 30%

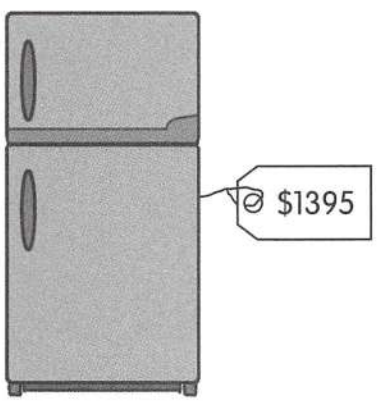
(3) Find the amount of GST for each of the following items.
The prices shown do **not** include 7% GST.

(a)

(b)



(c)



(4) Carol had $5000 in her bank account. The bank paid 3% interest at the end of each year. She did not withdraw any of her savings. How much interest did she earn at the end of 1 year?

Ans: _____

(5) Mr Patel invested $12 000 in an investment fund. The bank paid 4% interest at the end of each year. How much interest did he earn at the end of 1 year?

Ans: _____

Name: _____ Class: _____ Date: _____

Practice 5 Solving Word Problems

(1) There were 1200 books in a library. 35% of the books were fiction books. The rest of the books were non-fiction books. How many non-fiction books were there?

Ans: _____

(2) A sofa costs $600. What is the price of the sofa after a 15% discount?

Ans: _____

(3) Mrs Lee had $7500 in her bank account. The bank paid 4% interest at the end of each year. How much did she have in the bank at the end of 1 year?

Ans: _____

(4) Jason bought a pair of headphones which included a GST of 7%. The price of the pair of headphones before GST was $85. How much did Jason pay for the pair of headphones?

Ans: _____

Name: _____ Class: _____ Date: _____

Chapter 10 Review

(1) Darren scored 87 out of 100 marks in an English test.
What percentage did he score for the test?

(2) Express 13% as a fraction.

(3) Express $\frac{17}{20}$ as a percentage.

(4) Express 0.54 as a percentage.

(5) There were 50 stamps in an album. 30% of the stamps were local stamps. How many local stamps were there in the album?

Ans: _____

(6) A washing machine cost $720. Mr Png bought it at a 25% discount. How much was the discount?

Ans: _____

(7) Florence bought a refrigerator which included a GST of 7%. The cost of the refrigerator before GST was $899. How much did Florence pay for the refrigerator?

Ans: _____

(8) Mrs Tan had $25 000 in her bank account. The bank paid 5% interest at the end of each year. How much did Mrs Tan have in her bank account at the end of 1 year?

Ans: _____

(9) Zack had $120. He spent 25% of his money on a pair of shoes and 10% of his money on a book. How much money did Zack spend on the two items altogether?

Ans: _____

(10) There are 1500 stamps in a collection. 60% of the stamps are local stamps and the rest are foreign stamps. How many foreign stamps are there in the collection?

Ans: _____

Name: _____ Class: _____ Date: _____

Maths Journal

Alif and Sarah were asked to solve the following word problem.

> The cost of a laptop before 7% GST was $850. How much did the laptop cost?

Alif worked out the answer like this:
93% × $850 = $790.50

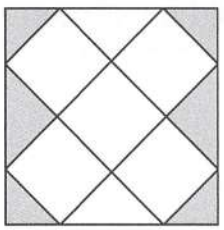
Sarah worked out the answer like this:
7% × $850 = $59.50
$850 + $59.50 = $909.50

Whose answer is correct? Explain.

Name: _____ Class: _____ Date: _____

Put On Your Thinking Cap!

(1) The following figure is made up of squares, small triangles and large triangles. What percentage of the whole figure is shaded?



(2) Shirley bought a refrigerator for $3450. She paid $\frac{3}{5}$ of the amount and took a loan for the rest. She paid the loan at the end of 1 year. The bank charged 3.5% interest for the loan. How much interest did Shirley pay?

CHAPTER 11

Average

Practice 1 Understanding Average

(1) The table shows the number of pupils in three classes. Find the average number of pupils in each class.

Class	5A	5B	5C
Number of Pupils	38	34	39

Ans: _____

(2) The table shows the amounts six shoppers spent at a department store. How much did each shopper spend on average?

Shopper	A	B	C	D	E	F
Amount	$100	$155	$178	$299	$210	$99

Ans: _____

(3) The table shows the water consumption for six households in a particular month. What was the average water consumption for the households in the month?

Household	A	B	C	D	E	F
Water Consumption	16.9 m^3	10.6 m^3	17.2 m^3	24 m^3	22.8 m^3	13.5 m^3

Ans: _____

(4) The table shows the masses of five newborns. Find their average mass.

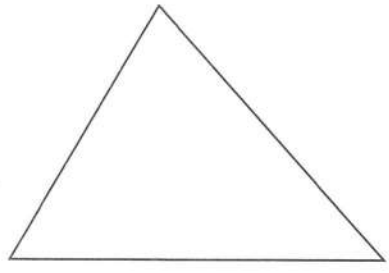
Name	Ahmad	Bala	Mingwei	Dawn	Siti
Mass	3.88 kg	4 kg	3.9 kg	2.76 kg	2.85 kg

Ans: _____

(5) The average number of goals scored by a football team in a match was 4. The team played a total of 22 matches. What was the total number of goals scored by the team?

Ans: _____

(6) The average length of the sides of a triangular plot of land is 8.5 m. What is its perimeter?



Ans: _____

 (7) There were 48 peaches in a carton. The average mass of all the peaches was 0.17 kg. What was their total mass?

Ans: _____

(8) Rehna sat for several tests and scored a total of 360 marks. Her average score was 72 marks. How many tests did Rehna sit for?

Ans: _____

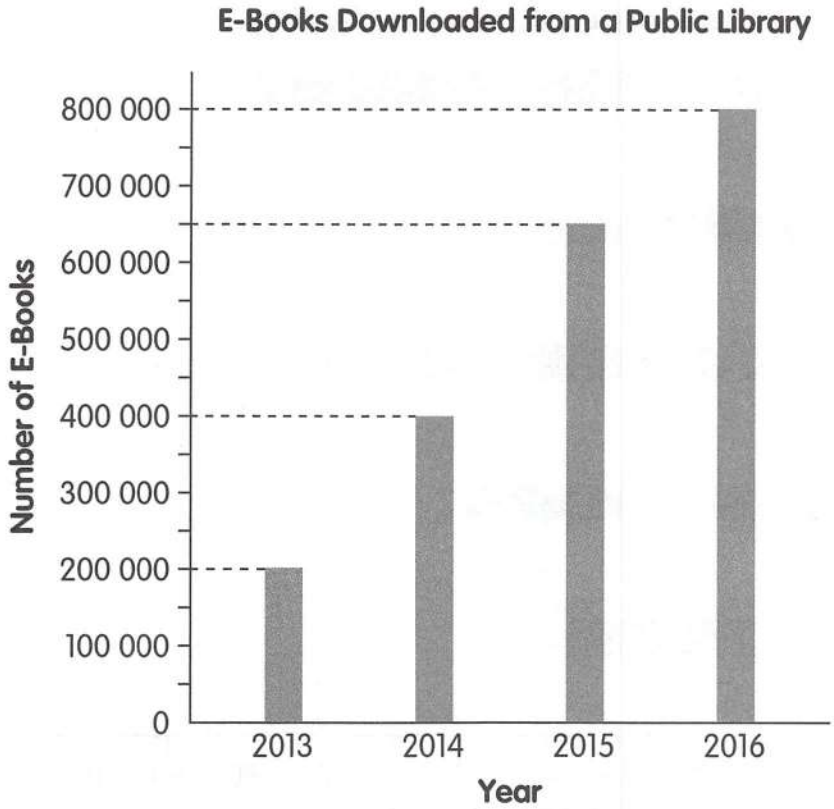
(9) A group of children had a total mass of 132 kg. The average mass of a child was 33 kg. How many children were there in the group?

Ans: _____

(10) An average of 205 people visited an exhibition in one day. A total of 1230 people visited the exhibition. How many days did the exhibition last?

Ans: _____

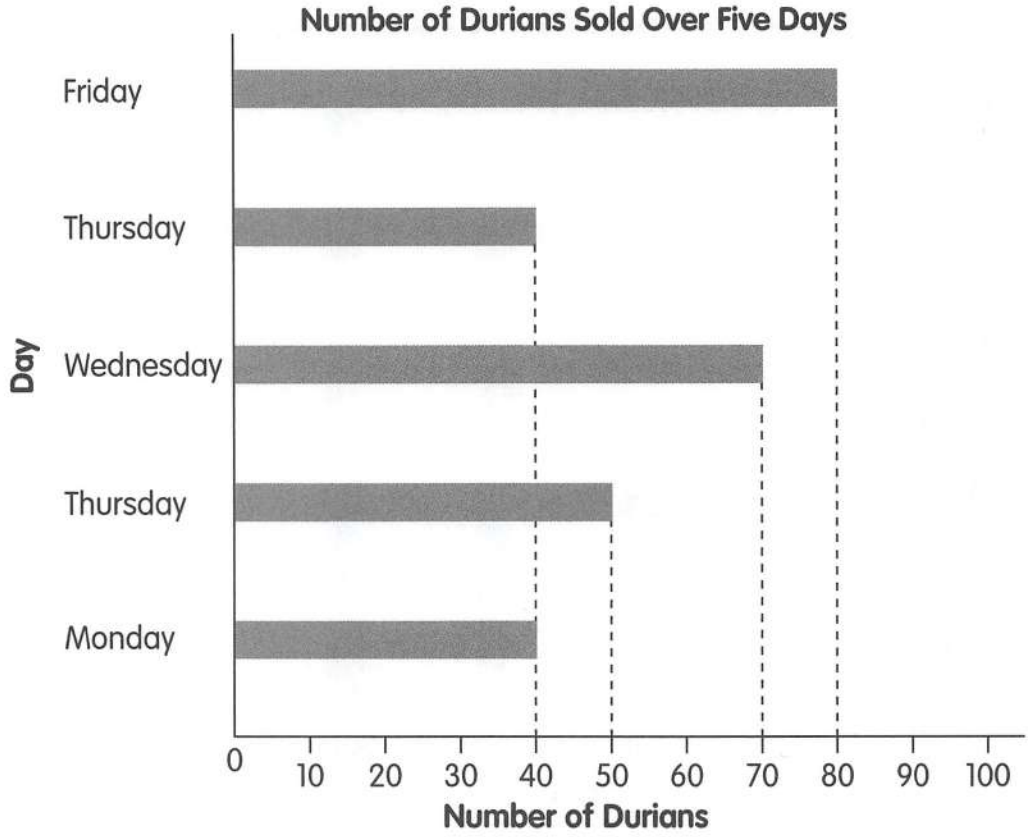
(11) The bar graph shows the number of e-books downloaded from a public library over the last four years.



What was the average number of e-books downloaded over the last four years?

Ans: _____

(12) The bar graph shows the number of durians sold by a stall over five days.



What was the average number of durians sold by the stall over the five days?

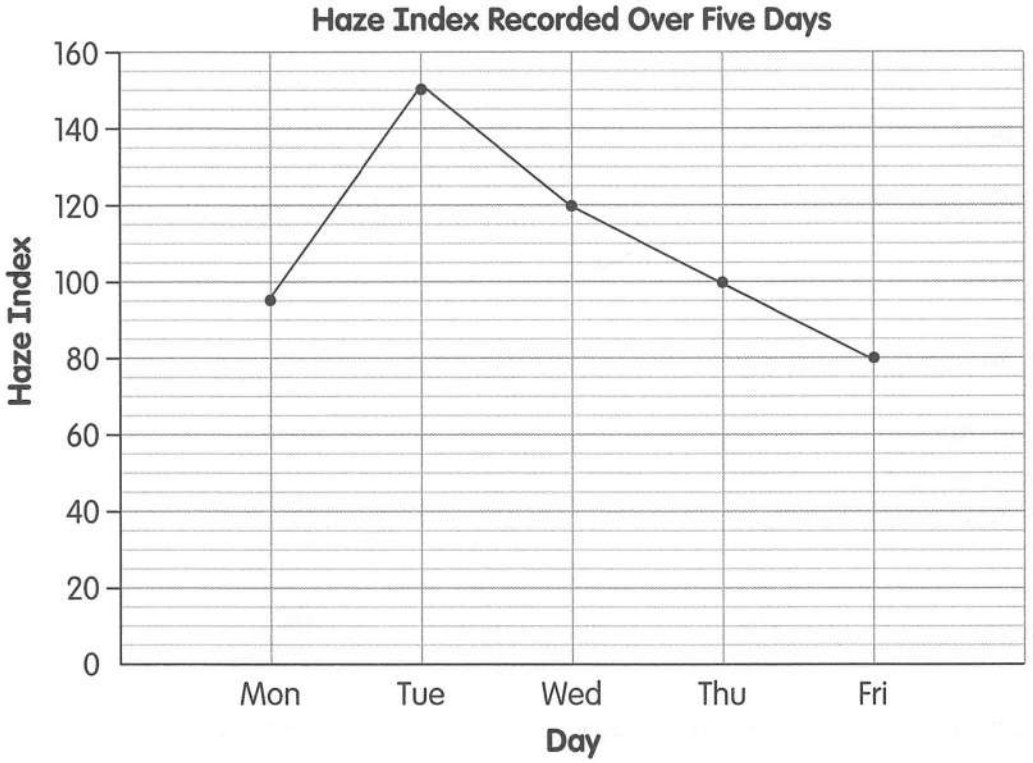
Ans: _____

(13) The line graph shows the sales of a 24-hour convenience store over four weeks.

What was the weekly average sales over the four weeks?

Ans: _____

(14) The line graph shows the haze index recorded over five days in a particular country.



What was the average haze index over the five days?

Ans: _____

(15) Three teams of athletes took part in a charity run. For every kilometre each team completed, a sum of $25 was donated to the charity. The table below shows the number of kilometres completed by the athletes in each team.

Team	Number of Athletes	Total Number of Kilometres Completed by Each Team
A	7	42
B	6	42
C	3	30
Total	?	?

(a) How much money was collected for the charity?

Ans: _____

(b) What was the average distance completed by each athlete?

Ans: _____

(16) The table below shows the standing broad jump results of 20 pupils.

Girls		Boys	
Name	**Distance (cm)**	**Name**	**Distance (cm)**
Geraldine	159	Alvin	176
Huiting	135	Benedict	174
Kavitha	160	Calvin	164
Louisa	155	Dan	168
Meili	165	Ethan	162
Maziyah	150	Guoming	190
Ruzita	148	Rohit	180
Vivian	138	Kieran	200
Stephanie	156	Leon	178
Valerie	144	Muhafiz	192

(a) What was the average distance all the girls jumped?

Ans: _____

(b) The average distance the boys jumped was 178.4 cm. Find the total distance all the boys jumped.

Ans: _____

(c) Find the average distance all the pupils jumped.

Ans: _____

Name: _____ Class: _____ Date: _____

Chapter 11 Review

(1) The table below shows the number of stamps Ben and Joseph collected. What was the average number of stamps each boy collected?

Name	Ben	Joseph
Number of stamps	200	120

Ans: _____

(2) The table shows the distances Wayne jogged over five days.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Distance (km)	3	2	4	5	6

(a) How many kilometres did Wayne jog over the five days?

Ans: _____

(b) On average, how many kilometres did he jog each day?

Ans: _____

(3) The table shows the number of tuna sandwiches sold by a cafe from Monday to Friday. Find the average number of tuna sandwiches sold on each day.

Day	Mon	Tue	Wed	Thu	Fri
Number of Sandwiches Sold	42	36	39	41	52

Ans: _____

(4) The table shows the highest temperature of a city over four months. Find the average highest monthly temperature over the four months.

Month	Apr	May	Jun	Jul
Temperature	26.5°C	25.8°C	32 °C	31.3°C

Ans: _____

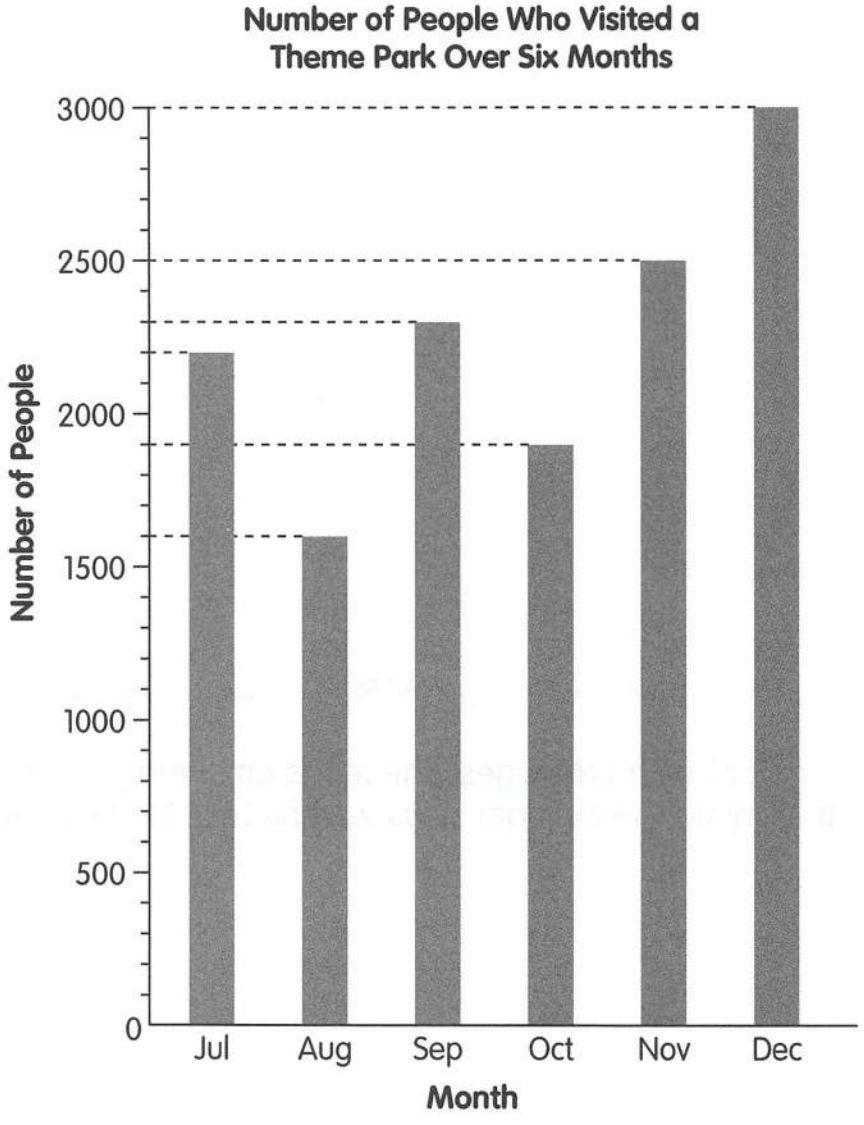
(5) The average mass of some mangoes is 225 g. There are 8 mangoes altogether. Find the total mass of all the mangoes.

Ans: _____

(6) Amelia has a storybook with 176 pages. She reads an average of 16 pages of the storybook every day. How many days will she take to finish reading the storybook?

Ans: _____

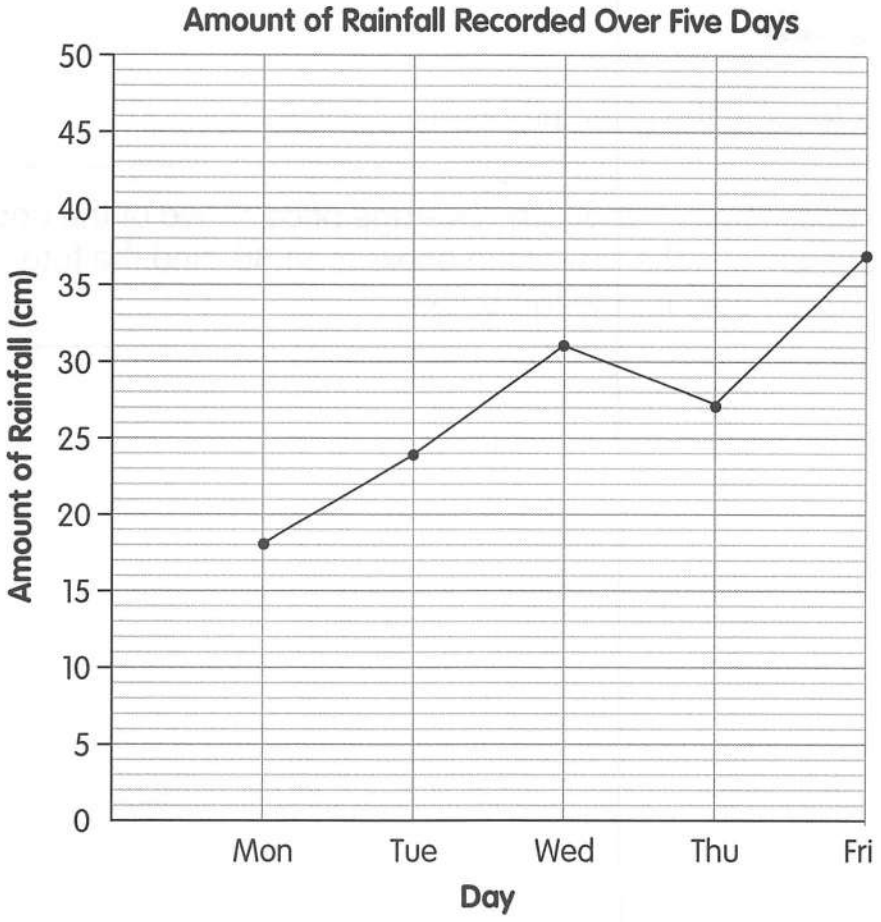
(7) The bar graph shows the number of people who visited a theme park over six months.



How many people on average visited the theme park each month?

Ans: _____

(8) The line graph shows the amount of rainfall in a town over five days.



(a) What was the average amount of rainfall over the five days?

Ans: _____

(b) If the amount of rainfall on Saturday, the 6th day, was 16 cm, what was the average amount of rainfall over the six days?

Ans: _____

Name: _____ Class: _____ Date: _____

Maths Journal

Write down the steps to solve the given problem.

Azean bought five books from a shop. The average price of two of the books is $5.20. The average price of the rest of the books is $4.80. Find the total amount of money Azean paid for the five books.

Then, following your steps above, work out the answer to the problem in the space below.

Put On Your Thinking Cap!

(1) The average height of Andy, Basri and Chelsea is 145 cm. Andy and Basri are of the same height and Chelsea is 15 cm taller than Andy. Find
(a) Andy's height
(b) Chelsea's height.

(2) Prema and her friends calculated the average number of books they had. If Prema had 10 more books than what she had, the average number of books they had would be 75. If she had 6 fewer books, the average number of books they had would be 73. How many friends did Prema have?

Name: _____ Class: _____ Date: _____

Review 4

Section A

Each question has four options. Choose the correct option (1, 2, 3 or 4). Write in the brackets provided.

(1) What is 6.058 kg in kilograms and grams?

1. 6 kg 58 g
2. 6 kg 580 g
3. 60 kg 58 g
4. 60 kg 580 g

( )

(2) What is 2037 cm in metres?

1. 2.037 m
2. 20.37 m
3. 203.7 m
4. 2037 m

( )

(3) Find the value of 35% × 600.

1. 210
2. 390
3. 600
4. 21 000

( )

(4) The average of seven numbers is 38. The sum of the first six numbers is 156. What is the seventh number?

1. 26
2. 110
3. 118
4. 266

( )

Section B

Solve the problems. Show your working clearly and write your answers in the spaces provided.

(5) Damian measured the heights of four of his friends. Find the average height of his four friends.

Name	Hafizah	Leonard	Sally	James
Height (m)	1.44	1.49	1.39	1.48

Ans: _____ m

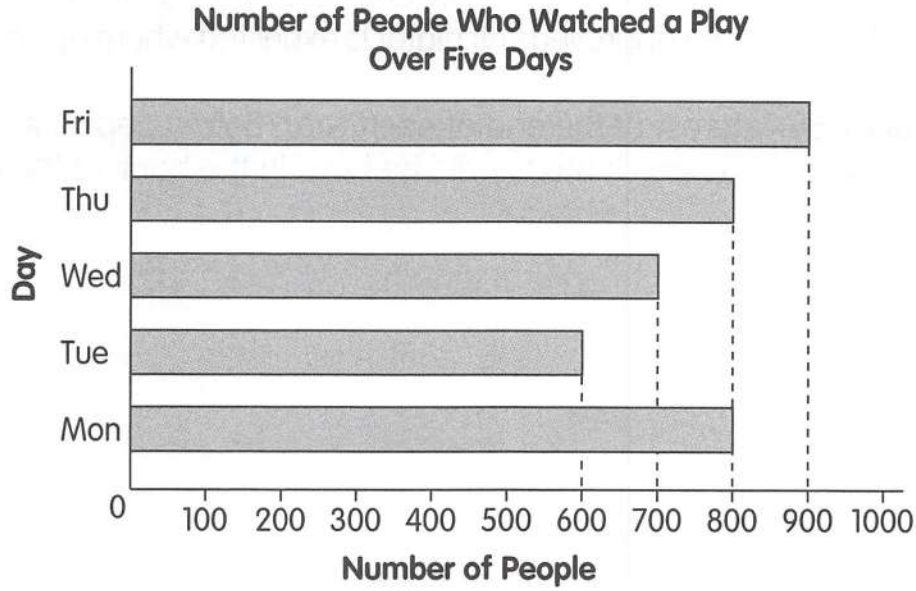
(6) There are 500 people in the park. 150 of them are women. What percentage of the people in the park are men?

Ans: _____ %

(7) 645.8 ℓ of water is poured into 8 empty tanks. What is the average amount of water in each tank? Give your answer in litres and millilitres.

Ans: _____ ℓ _____ ml

(8) The bar graph shows the number of people who watched a play over five days.



What was the average number of people who watched the play over the five days?

Ans: _____

(9) Fill in the blanks.

(a) _____ × 1000 = 21 450

(b) 25.35 ÷ _____ = 2.535

Ans: (a) _____

(b) _____

Section C


Solve the problems. Show your working clearly and write your answers in the spaces provided. The use of an approved calculator is expected where appropriate.

(10) A bank offers 2.5% interest at the end of each year. Bobby deposited $4200 in the bank. How much money did he have in the bank at the end of the year?

Ans: _____

(11) The usual price of an LED television set was $4000. During a sale, Julian bought the LED television set at a discount of 20%. How much did Julian have to pay for the LED television set after the discount?

Ans: _____

(12) The mass of Parcel A was 0.7 kg. Parcel B was heavier than Parcel A. Parcel C had the same mass as Parcel B. The total mass of the three parcels was 2.5 kg. What was the mass of Parcel C?

Ans: _____

(13) Roslan had a total of $50 in 10-cent coins, 20-cent coins and 50-cent coins. The value of his 10-cent coins was 30% of the total value of all his coins. The value of his 20-cent coins was 28% of the total value of all his coins. What was the value of his 50-cent coins?

Ans: _____

Name: _____ Class: _____ Date: _____

Rate

Practice 1 Rate

(1) A car can travel 72 km on 6 ℓ of petrol. At this rate, how many kilometres can the car travel on 1 ℓ of petrol?

Ans: _____

(2) Susan paid $14 for renting a bicycle for 2 hours. At this rate, how much did Susan pay per hour?

Ans: _____

(3) Mr Wee sells mussels at $8 per kilogram. At this rate, how much money will Mr Wee make from selling 30 kg of mussels?

Ans: _____

(4) Peter wants to post 40 invitation cards to his friends. The postage cost per card is 25¢. At this rate, how much will it cost Peter to send out all the invitation cards?

Ans: _____

(5) A phone company charges 35¢ per minute for an overseas call. At this rate, how much does a 5-minute call cost?

Ans: _____

(6) Madam Munah takes 1 day to sew 2 dresses. At this rate, how many days does Madam Munah take to sew 16 dresses?

Ans: _____

(7) A machine prints 9 stamps per minute. At this rate, how long will it take to print 180 stamps?

Ans: _____

(8) A money changer offers an exchange rate of 0.65 Euros for 1 Singapore dollar. At this rate, how many Singapore dollars will Cathy get if she gives the money changer 975 Euros?

Ans: _____

Name: _____ Class: _____ Date: _____

Practice 2 Solving Word Problems

(1) A wheel made 96 revolutions in 12 seconds. At this rate, how many revolutions would the wheel make in 1 minute?

Ans: _____

(2) Ravi saved $19 in 2 days. He saved an equal amount every day. How much would Ravi save in 14 days?

Ans: _____

(3) A car used 4 ℓ of petrol after it travelled 56 km.

(a) How many kilometres can the car travel on 1 ℓ of petrol?

(b) How much petrol is needed for the car to travel 322 km?

Ans: (a) _____

(b) _____

(4) The cost of carpeting an area of 30 m^2 is \$1500.

(a) What is the cost of carpeting a square metre?

(b) Mr Tan pays \$2250 to carpet his office. What is the area of Mr Tan's office?

Ans: (a) _____

(b) _____

(5) The table shows the bulk post charges between two countries. What is the bulk post charge for sending a package that weighs 6.7 kg?

Mass Step Not Over	Bulk Post Charge
2 kg	$20
5 kg	$55
Per additional step of 1 kg or part thereof	$10

Ans: _____

(6) The table shows the amounts a company charges for delivering items within a zone. What is the delivery charge for an item that weighs 21.6 kg?

Mass Step Not Over	Delivery Charge
2 kg	$13
3 kg	$19
10 kg	$28
20 kg	$35
Per additional step of 1 kg or part thereof	$7

Ans: _____

(7) The table shows the rates for renting a bicycle from a shop.

First 2 hours	\$7.50
After the second hour	\$4 per $\frac{1}{2}$ hour or part thereof

Miss Lorenz rented a bicycle from 09 30 to 13 15.
How much did Miss Lorenz have to pay?

Ans: _____

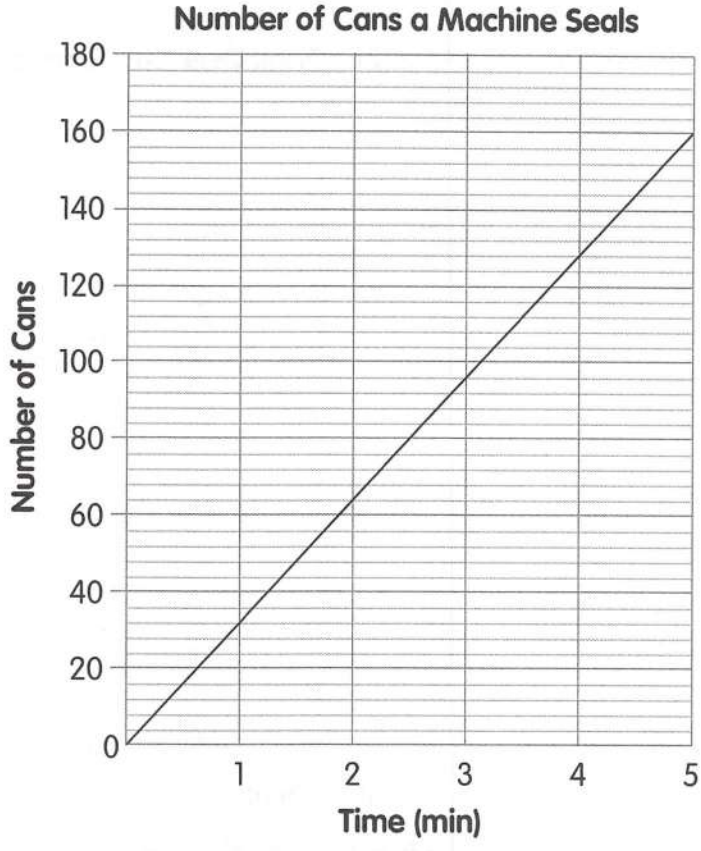
(8) A telecommunications company charges the following rates for talk time.

The first minute	20¢
For every additional 20 s or part thereof up to 5 min	6¢
For every additional 15 s or part thereof after 5 min	5¢

What will the charge in dollars for a 5-minute call be?

Ans: _____

(9) The line graph shows the number of cans of baked beans a machine sealed over five minutes.



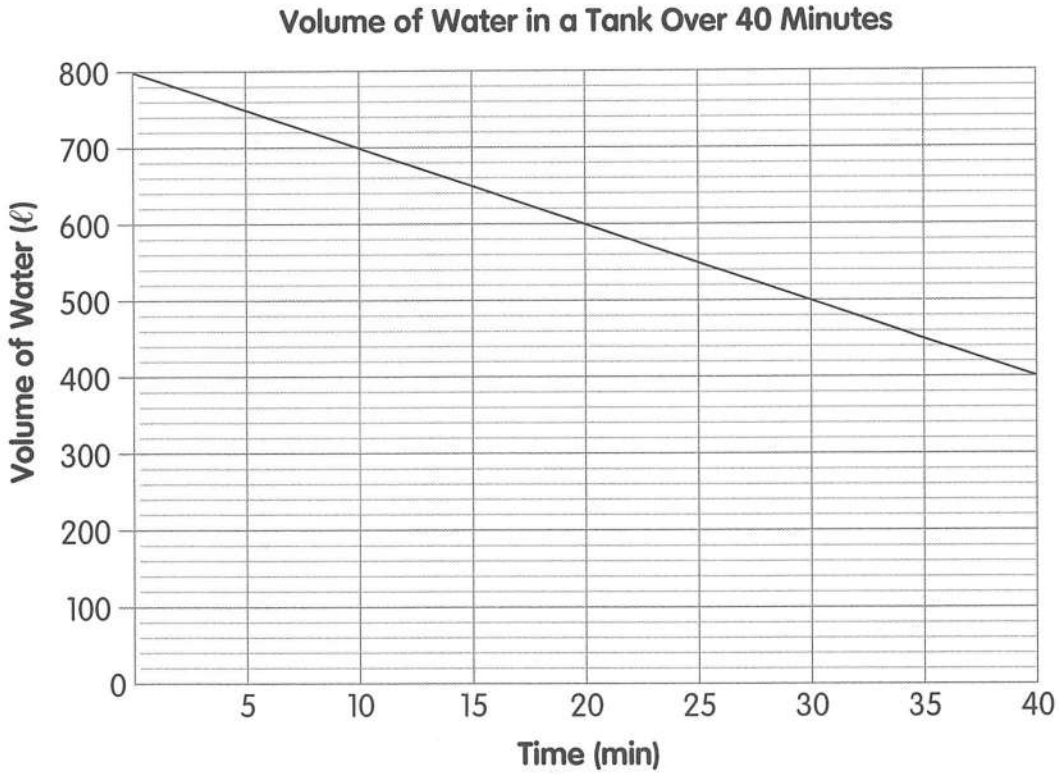
(a) How many cans did the machine seal in four minutes?
(b) How many cans does the machine seal per minute?
(c) At this rate, how much time would the machine take to seal 480 cans?

Ans: (a) _____

(b) _____

(c) _____

(10) At first, a tank was completely filled with water. A pump was turned on for some time to drain water from the tank. The line graph shows the volume of water in the tank over 40 minutes.



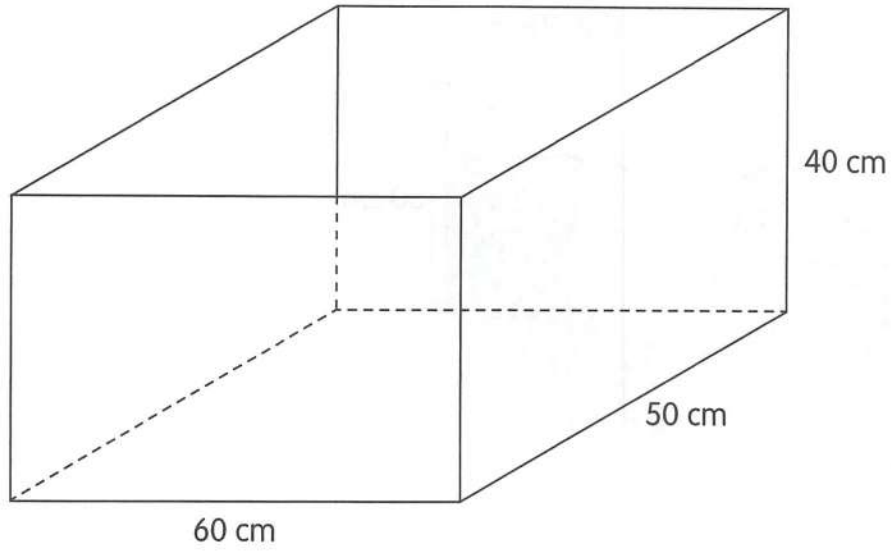
(a) How much water was drained out of the tank in one minute?

(b) How long will it take for the water to be drained out of the tank completely? Express your answer in hours and minutes.

Ans: (a) _____

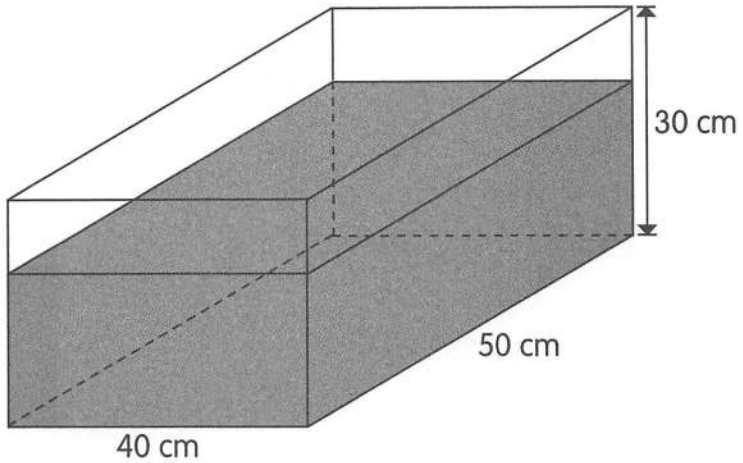
(b) _____

(11) A rectangular tank measures 60 cm by 50 cm by 40 cm. Water flows into the tank at a rate of 8 litres per minute. At this rate, how long will it take to fill the tank?



Ans: _____

(12) A rectangular tank 40 cm wide by 50 cm long by 30 cm high is filled up with water up to $\frac{2}{3}$ of its height. Water flows from a tap into the tank at a rate of 0.5 litre per minute. Find the amount of water in the tank after 30 minutes. Give your answer in litres.



Ans: _____

Name: _____ Class: _____ Date: _____

Chapter 12 Review

(1) Jerry took 5 minutes to type 315 words. How many words did Jerry type in 1 minute?

Ans: _____

(2) The cost of carpeting a room is $5 per square metre. How much would it cost to carpet a room with an area of 25 m^2?

Ans: _____

(3) A rectangular tank measuring 70 cm by 70 cm by 40 cm is filled up to its brim with water. Water drains from the tank at a rate of 7 ℓ per minute. How long will it take to drain all the water in the tank?

Ans: _____

(4) A clock gained 5 s in 2 weeks. At this rate, how many weeks would it take for the clock to gain a full minute?

Ans: _____

(5) The breadth of a rectangular field is 15 m. The length of the rectangular field is 3 times as long as its breadth. Each metre of fence costs $4. How much will it cost to fence the field?

Ans: _____

(6) The table below shows the rental charges for canoes.

First hour	$20
For every additional $\frac{1}{2}$ hour or part thereof	$10

David and his friend rented a canoe each for 2 h 45 min. How much did they pay altogether?

Ans: _____

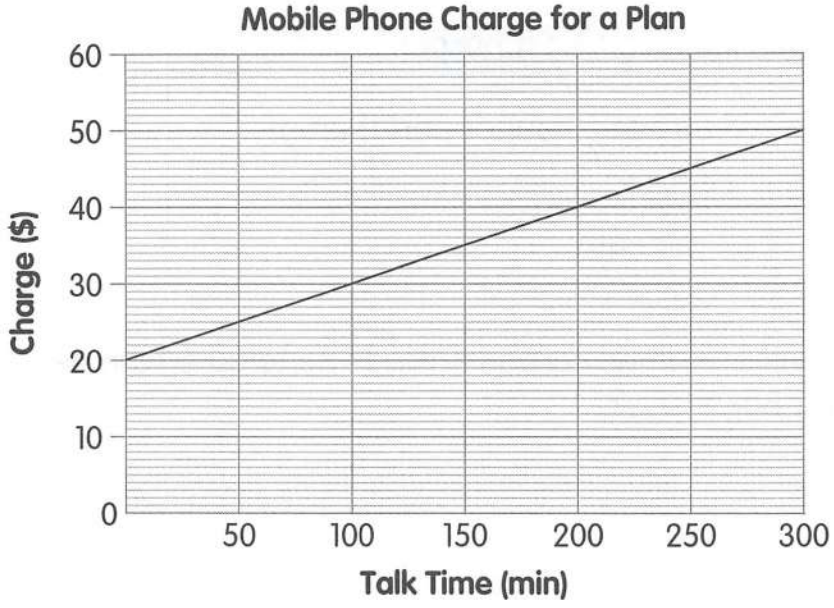
(7) The table below shows the parking charges at a carpark.

Time	Charge
7 a.m. to 6 p.m.	\$1.60 per $\frac{1}{2}$ hour or part thereof
6 p.m. to 7 a.m.	\$2 per entry

Mr Bakar parked his car at the carpark from 17 35 to 00 40 the next day. How much did Mr Bakar pay?

Ans: _____

(8) The line graph show the monthly mobile phone charge for a plan.



(a) How much is the mobile phone charge per minute?

(b) Ali paid $51.80 for his phone bill in January. How much talk time did he use?

Ans: (a) _____

(b) _____

*(9) Felix and Dylan ran for 60 seconds. Both of them counted their heartbeats. Felix counted 48 heartbeats in 20 s. Dylan counted 39 heartbeats in 15 s.

(a) Which boy had a faster heart rate?

(b) How much faster?

Ans: (a) _____

(b) _____

Name: _____ Class: _____ Date: _____

Maths Journal

How do you use rate in your daily life?

Put On Your Thinking Cap!

(1) A hotel charges its guests the following rates for Internet use.

First 10 hours	$10 per hour
After 10 hours	$8 per hour

Bruce used the Internet for 3 hours every day during his stay. He paid a total of $188. How long was Bruce's stay?

(2) Farah saved $15 every day while Shirley saved $10 every day. Shirley started saving money 5 days earlier than Farah. How many days will it take Farah to have the same amount of savings as Shirley?

Name: _____ Class: _____ Date: _____

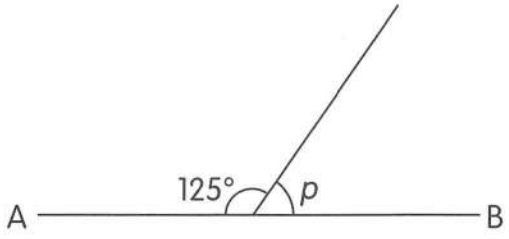
CHAPTER 13

Angles

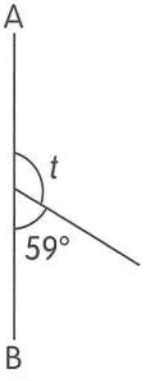
Practice 1 Angles on a Straight Line

(1) In each of the following diagrams, AB is a straight line. Find the unknown marked angles.

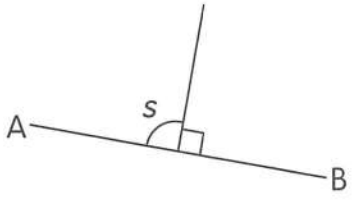
(a)



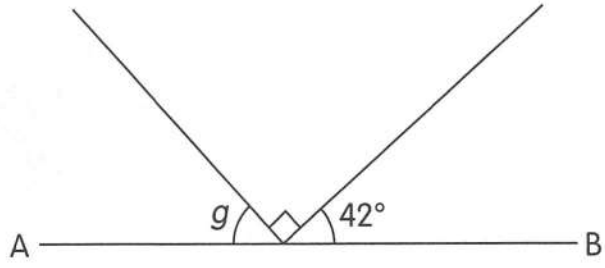
(b)



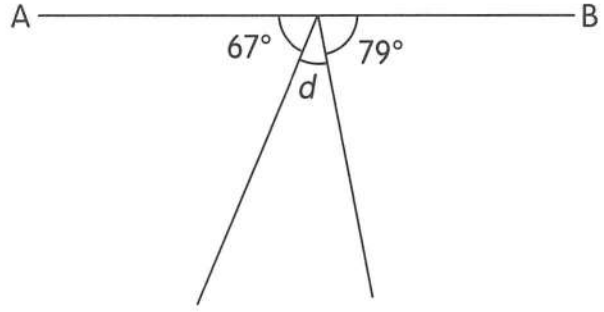
(c)



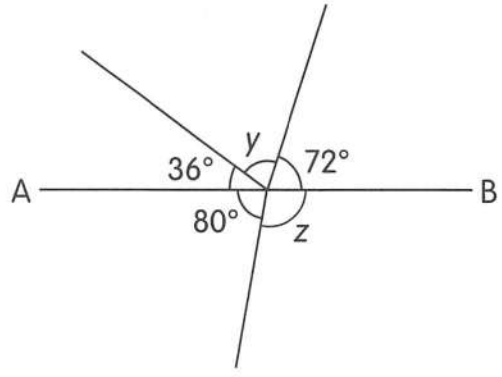
(d)



(e)



(f)

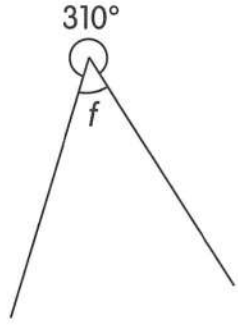


Name: _____ Class: _____ Date: _____

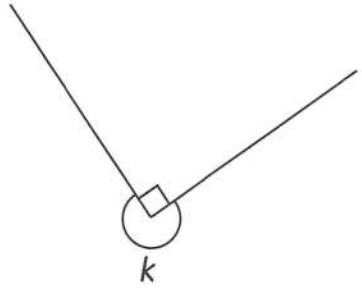
Practice 2 Angles at a Point

(1) In each of the following diagrams, the lines meet at a point. Find the unknown marked angles.

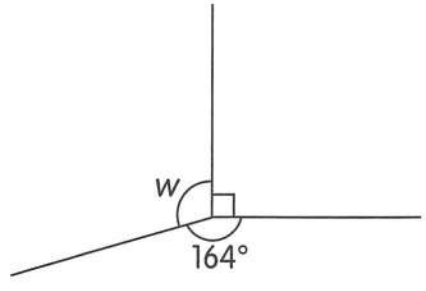
(a)



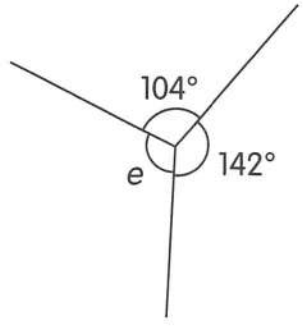
(b)



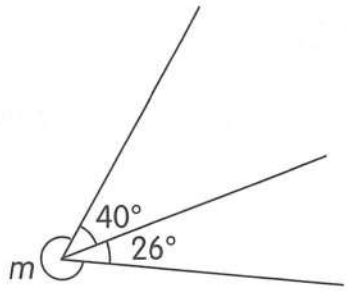
(c)



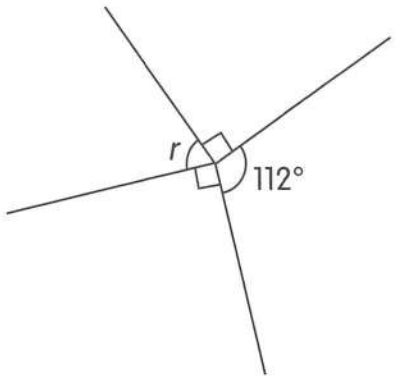
(d)



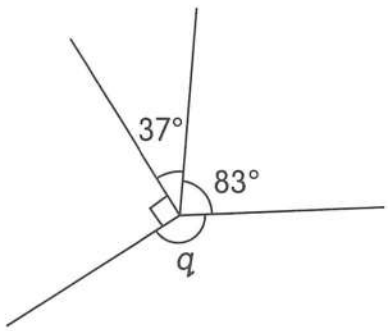
(e)



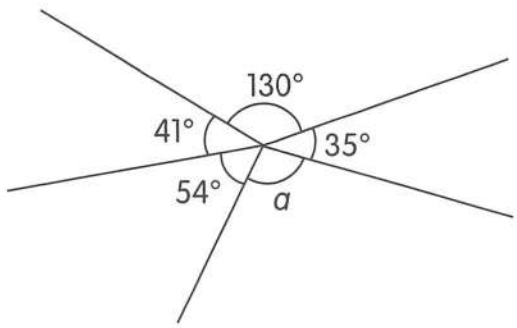
(f)



(g)



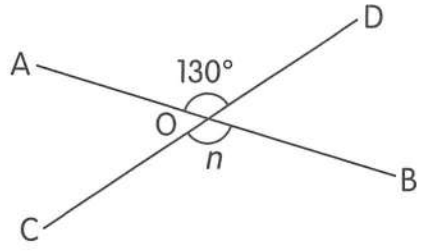
(h)



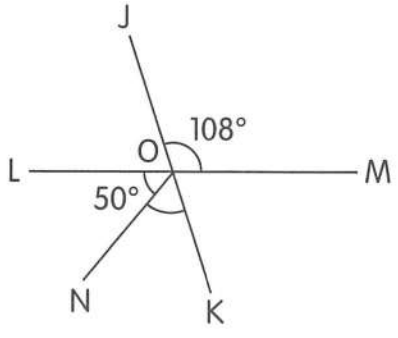
Name: _____ Class: _____ Date: _____

Practice 3 Vertically Opposite Angles

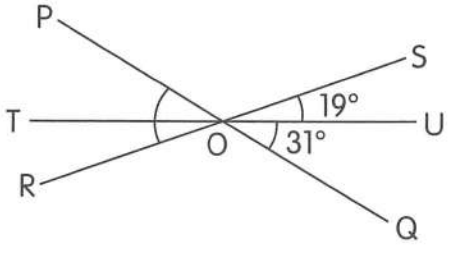
(1) (a) AB and CD are straight lines. Find $\angle n$.



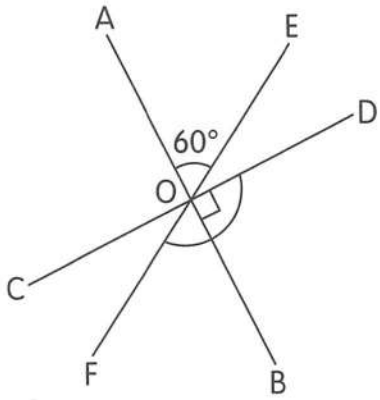
(b) JK and LM are straight lines. Find $\angle NOK$.



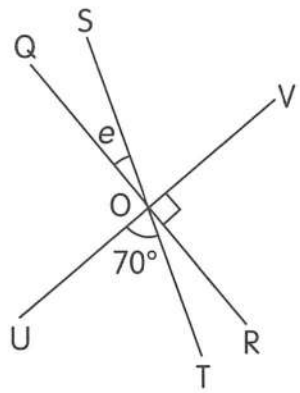
(c) TU, PQ and RS are straight lines. Find $\angle POR$.



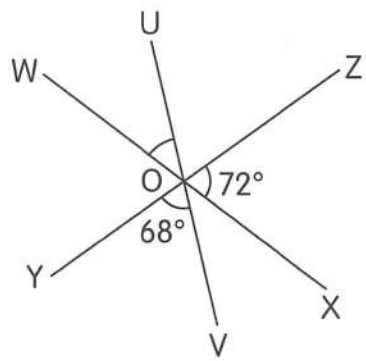
(d) AB, CD and EF are straight lines. ∠DOB is a right angle. Find ∠FOD.



(e) QR, ST and UV are straight lines. ∠VOR is a right angle. Find ∠*e*.



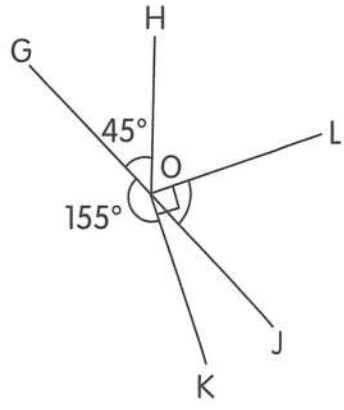
(f) UV, WX and YZ are straight lines. Find ∠UOW.



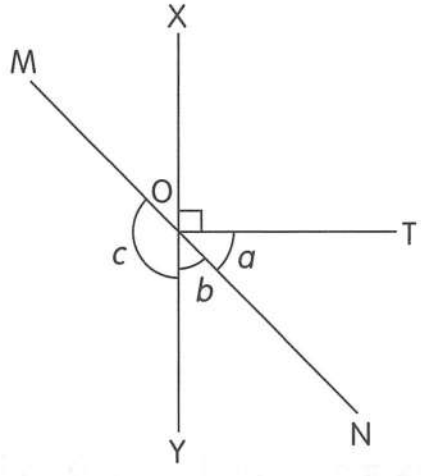
Name: _____ Class: _____ Date: _____

Practice 4 Finding Unknown Angles

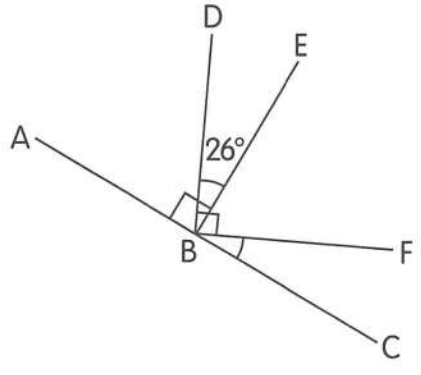
(1) GJ is a straight line. ∠LOK is a right angle. Find ∠LOJ.



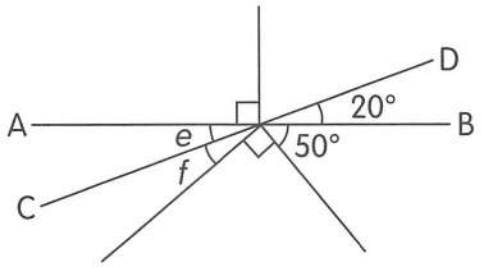
(2) MN and XY are straight lines and $\angle a = \angle b$. ∠XOT is a right angle. Find $\angle c$.



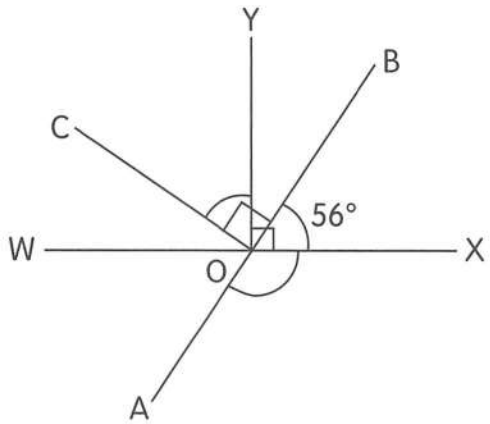
(3) AC is a straight line. ∠ABE and ∠DBF are right angles. Find ∠FBC.



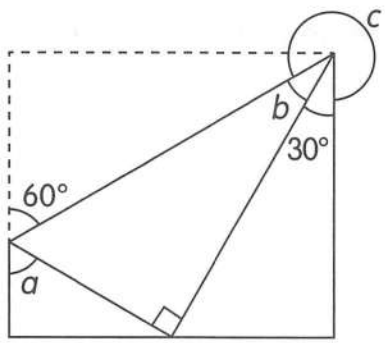
(4) AB and CD are straight lines. Find $\angle e$ and $\angle f$.



(5) AB and WX are straight lines. $\angle$COB and $\angle$YOX are right angles. Find $\angle$COY and $\angle$AOX.



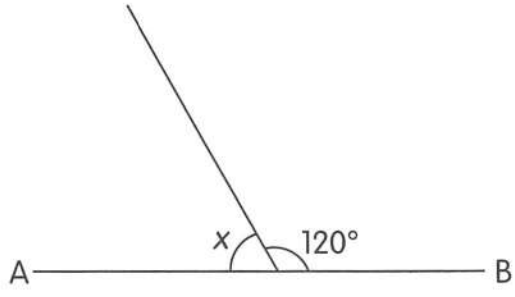
*(6) A piece of rectangular paper was folded as shown. Find $\angle a$, $\angle b$ and $\angle c$.



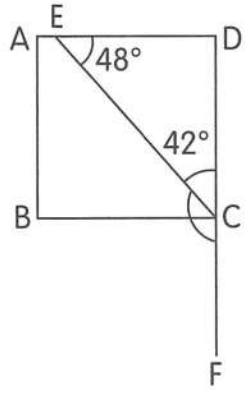
Name: _____ Class: _____ Date: _____

Chapter 13 Review

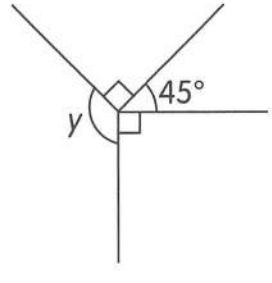
(1) AB is a straight line. Find $\angle x$.



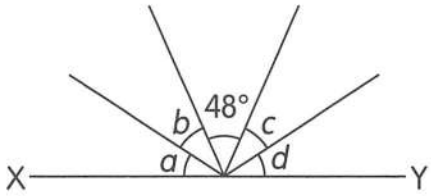
(2) ABCD is a square. DF is a straight line. Find $\angle ECF$.



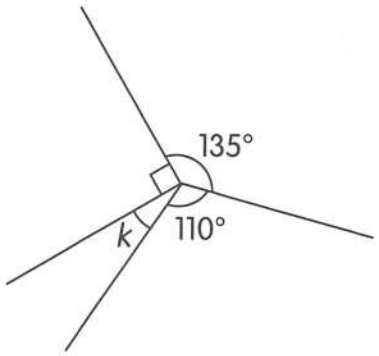
(3) In the diagram, all the lines meet at a point. Find $\angle y$.



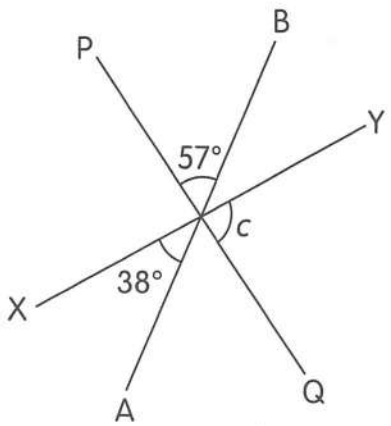
(4) XY is a straight line. $\angle a = \angle b = \angle c = \angle d$. Find $\angle b$.



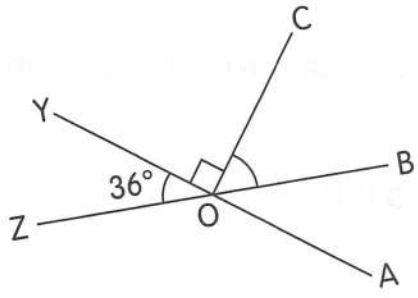
(5) In the diagram, all the lines meet at a point. Find $\angle k$.



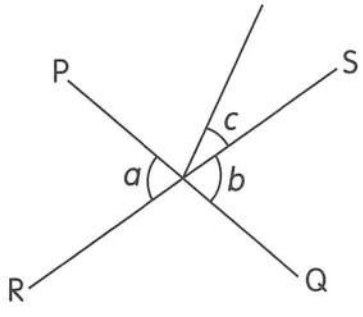
(6) PQ, AB and XY are straight lines. Find $\angle c$.



(7) BOZ and AOY are straight lines. $\angle$COY is a right angle.
Find $\angle$COB.



(8) PQ and RS are straight lines. $\angle a + \angle b = 150°$ and $\angle b + \angle c = 105°$.
Find $\angle c$.



Name: _____ Class: _____ Date: _____

Maths Journal

Adnan wrote these statements. Check his statements for errors and explain any errors you find.

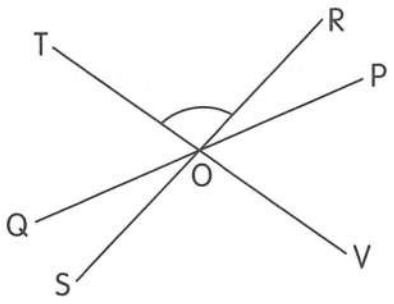
(a) The angles on a straight line are 20°, 100° and 80°.

(b) The angles at a point are 100°, 60° and 240°.

Put On Your Thinking Cap!

(1) How many degrees does the hour hand of a clock turn between 3 p.m. and 7.30 p.m.?

(2) PQ, RS and TV are straight lines. $\angle QOR = 157°$ and $\angle TOP = 122°$. Find $\angle TOR$.



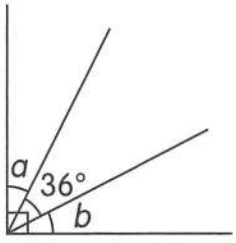
Name: _____ Class: _____ Date: _____

Review 5

Section A

Each question has four options. Choose the correct option (1, 2, 3 or 4). Write in the brackets provided.

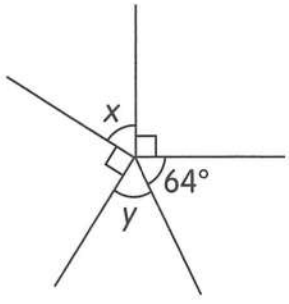
(1) $\angle a = \angle b$. Find $\angle a$.



1. 27°
2. 30°
3. 36°
4. 54°

( )

(2) Find the sum of $\angle x$ and $\angle y$.



1. 52°
2. 90°
3. 116°
4. 206°

( )

(3) A muffin machine bakes 24 muffins in 8 minutes. At this rate, how many muffins can it make in 1 minute?

1. 16
2. 32
3. 3
4. 192

( )

(4) A machine takes 8 minutes to fill 48 bottles with chilli sauce.
At this rate, how long will it take to fill 12 bottles with chilli sauce?

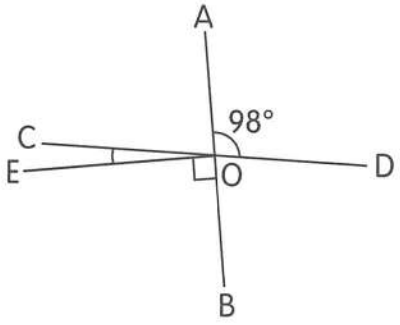
1. 1 minute
2. 2 minutes
3. 6 minutes
4. 8 minutes

( )

Section B

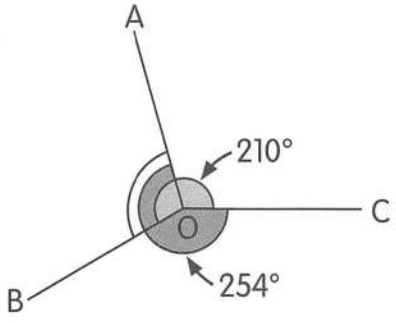
Solve the problems. Show your working clearly and write your answers in the spaces provided.

(5) AOB and COD are straight lines. Find ∠COE.



Ans: _____°

(6) The lines meet at the point O. $\angle AOC = 210°$ and $\angle BOC = 254°$. Find $\angle AOB$.



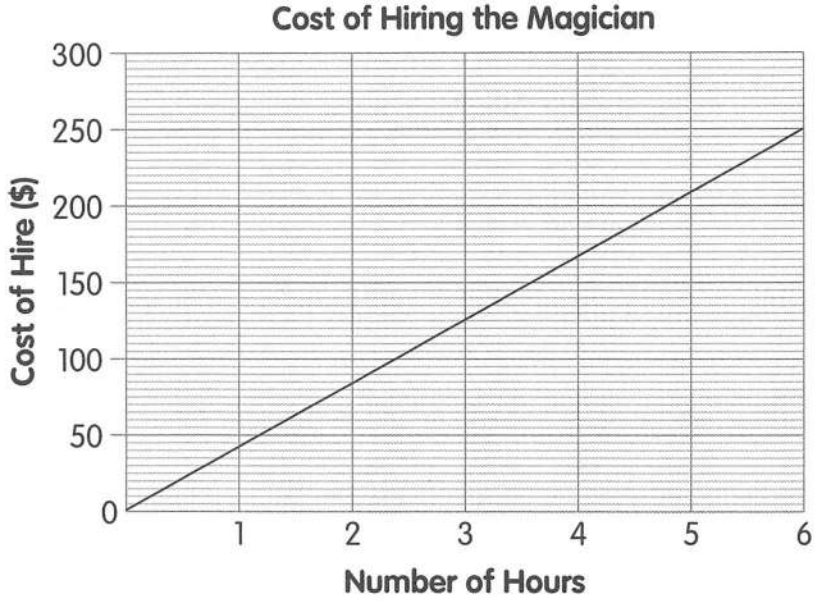
Ans: _____°

(7) The table shows the admission fees to one conservatory at Gardens by the Bay. Mr Tan and his friends planned a group visit for three adults and nine children. Find the amount of money they had to pay for their tickets.

Type of tickets	Price per ticket
Per adult	$12
Per child	$8

Ans: $_____

(8) An entertainment company wants to hire a magician for their New Year show. The line graph shows the cost of hiring the magician.



(a) How much does the company pay for hiring the magician for three hours?

(b) If the company pays $250 for hiring the magician, how long do they hire the magician for?

Ans: (a) $_____

(b) _____ h

Section C

Solve the problems. Show your working clearly and write your answers in the spaces provided. The use of an approved calculator is expected where appropriate.

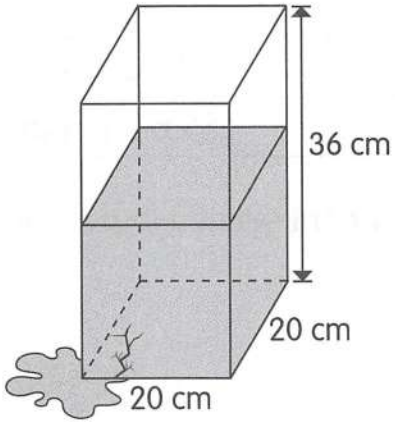
(9) The table shows the charges of a catering company.

For 30 persons or fewer	$10 per person
For every additional person	$9 per person

Irene paid the company $390 for her department event. How many people did she cater for?

Ans: _____

(10) A tank with a square base of edge 20 cm and a height of 36 cm is $\frac{2}{3}$-filled with water. There is a crack at the bottom of the tank and water is leaking out at a rate of 1.2 ℓ per minute. At this rate, how long will it take for all the water in the tank to leak out?



Ans: _____

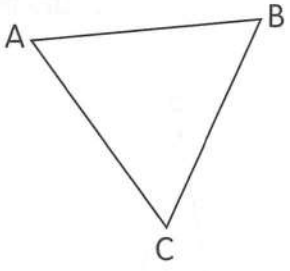
Name: _____ Class: _____ Date: _____

CHAPTER 14

Triangles

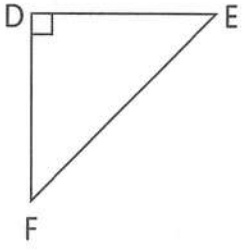
Practice 1 Classifying Triangles

(1) Which of these triangles are equilateral or isosceles? Use a ruler to find out.

(a) 

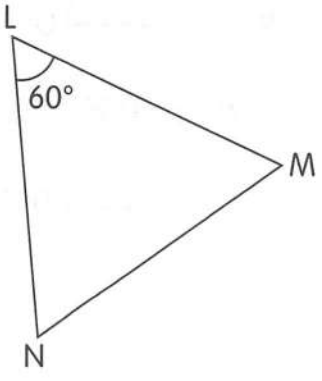
Triangle ABC is an

_____ triangle.

(b) 

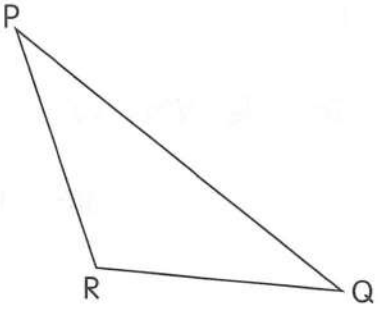
Triangle DEF is an

_____ triangle.

(c) 

Triangle LMN is an

_____ triangle.

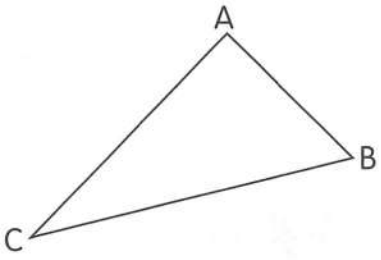
(d) 

Triangle PQR is an

_____ triangle.

(2) Which of these triangles are right-angled, acute-angled or obtuse-angled?

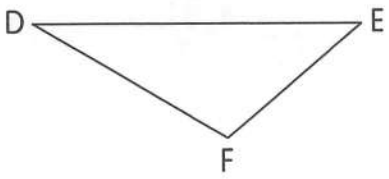
(a)



Triangle ABC is a/an

_____-angled triangle.

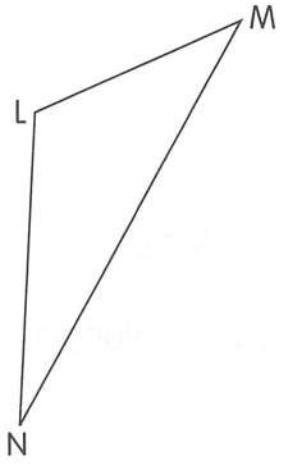
(b)



Triangle DEF is a/an

_____-angled triangle.

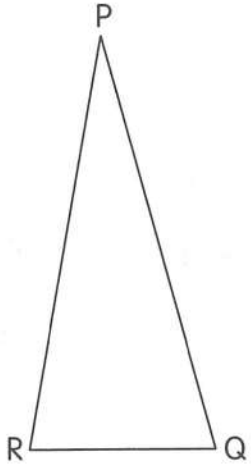
(c)



Triangle LMN is a/an

_____-angled triangle.

(d)



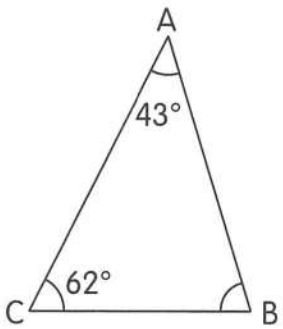
Triangle PQR is a/an

_____-angled triangle.

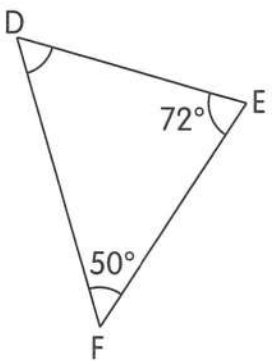
Name: _____ Class: _____ Date: _____

Practice 2 Sum of Angles in a Triangle

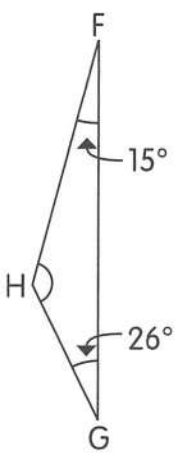
(1) In triangle ABC, ∠CAB = 43° and ∠BCA = 62°. Find ∠CBA.



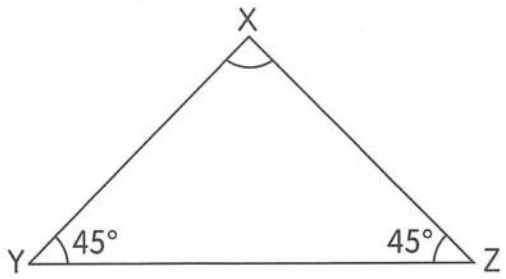
(2) In triangle DEF, ∠EFD = 50° and ∠DEF = 72°. Find ∠FDE.



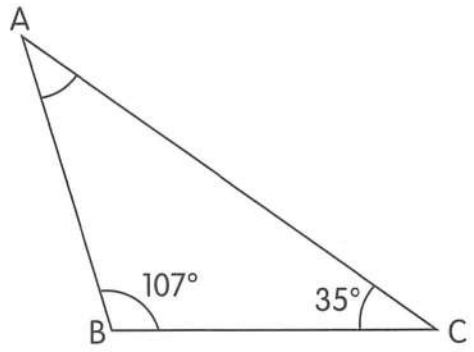
(3) In triangle FGH, ∠HFG = 15° and ∠FGH = 26°. Find ∠FHG.



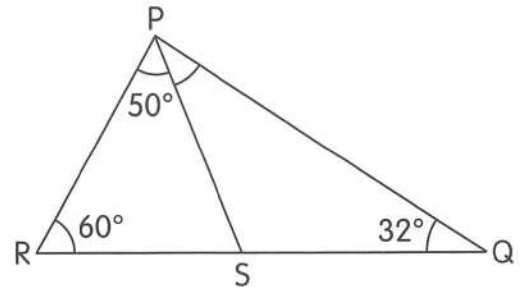
(4) In triangle XYZ, $\angle XYZ = \angle YZX = 45°$. Find $\angle ZXY$.



(5) In triangle ABC, $\angle ABC = 107°$ and $\angle BCA = 35°$. Find $\angle CAB$.



(6) In triangle PRQ, $\angle RPS = 50°$, $\angle PRS = 60°$ and $\angle SQP = 32°$. Find $\angle SPQ$.

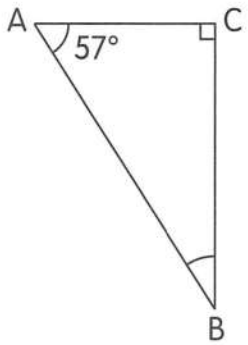


Name: _____ Class: _____ Date: _____

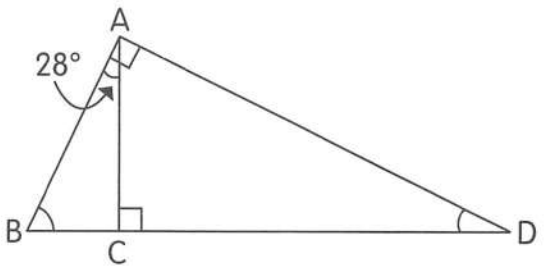
Practice 3 Right-angled, Isosceles and Equilateral Triangles

(1) Find the unknown marked angles in each of the right-angled triangles.

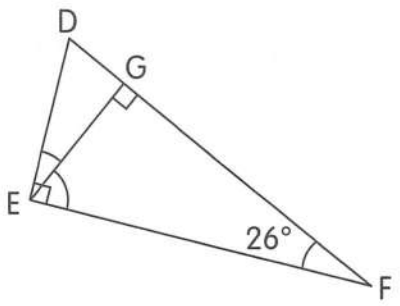
(a) Find ∠ABC.



(b) Find ∠ABC and ∠ADC.

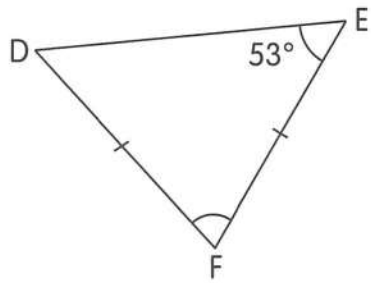


(c) Find ∠GEF and ∠DEG.

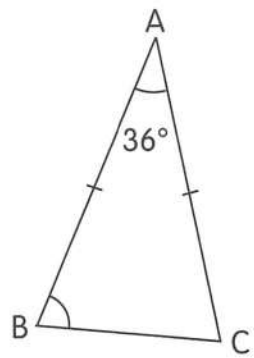


(2) Find the unknown marked angle in each of the isosceles triangles.

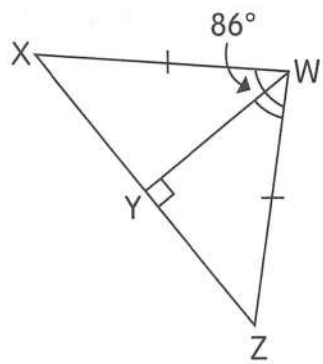
(a) Find $\angle EFD$.



(b) Find $\angle ABC$.

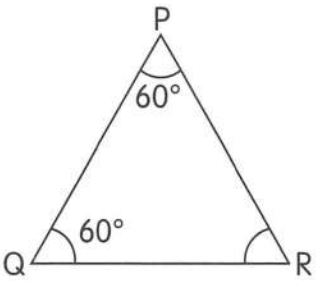


(c) Find $\angle ZWY$.

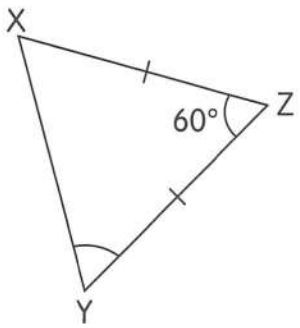


(3) Find the unknown marked angle in each of the equilateral triangles.

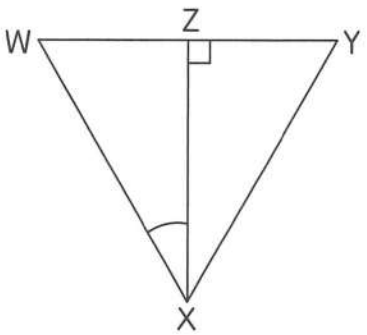
(a) Find $\angle PRQ$.



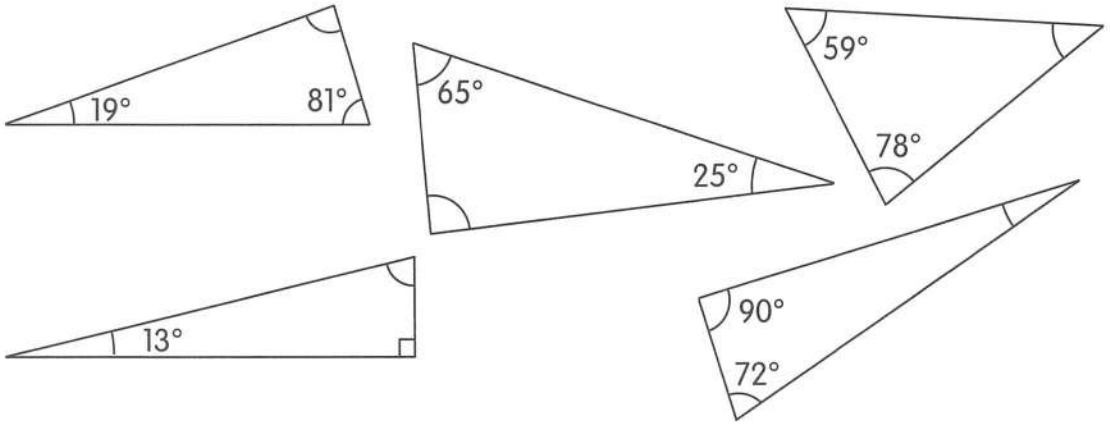
(b) Find $\angle XYZ$.



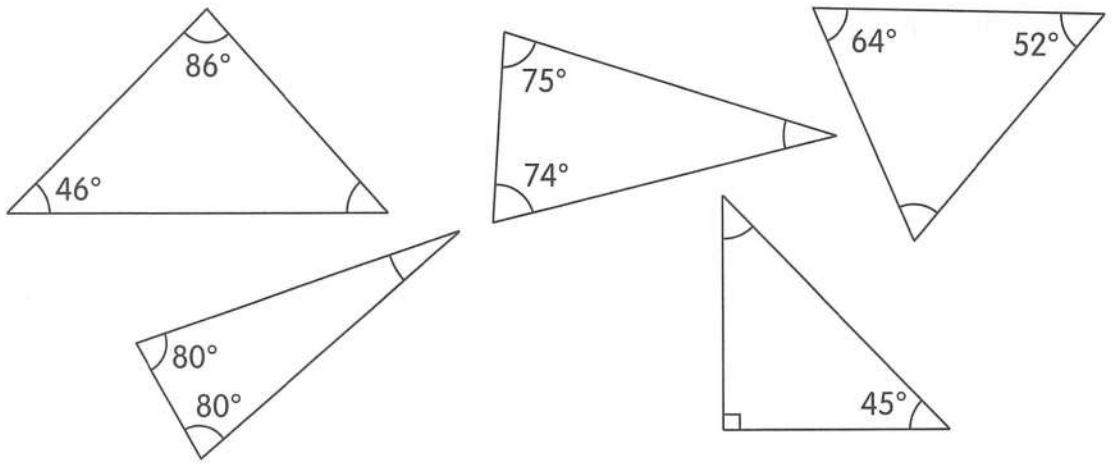
(c) Find $\angle WXZ$.



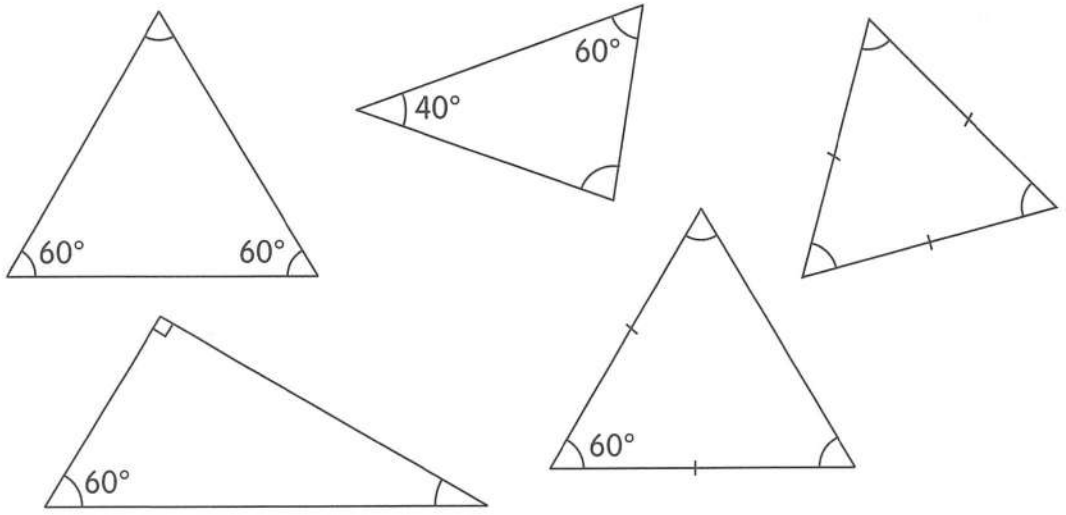
(4) (a) Identify and shade the right-angled triangles.



(b) Identify and shade the isosceles triangles.



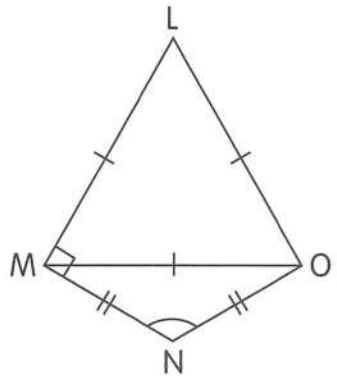
(c) Identify and shade the equilateral triangles.



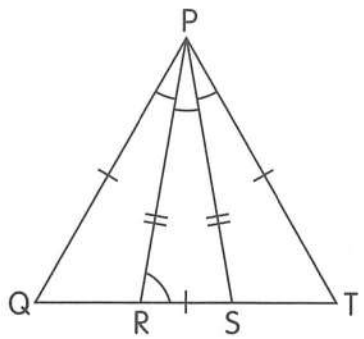
Name: _____ Class: _____ Date: _____

Practice 4 Finding Unknown Angles

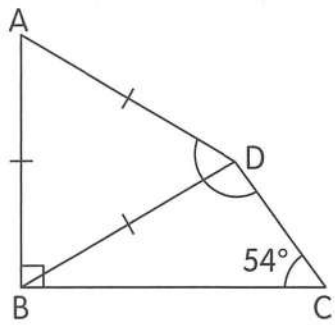
(1) In the following figure, triangle LMO is an equilateral triangle and triangle MNO is an isosceles triangle. Find ∠MNO.



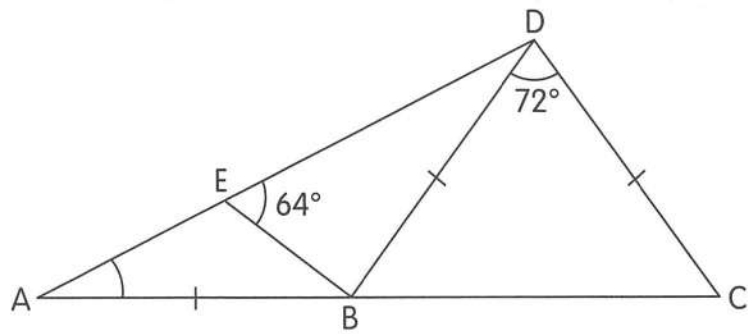
(2) In the following figure, triangle PQT is an equilateral triangle. Triangle PRS is an isosceles triangle. ∠QPR = ∠RPS = ∠SPT. Find ∠PRS.



(3) Triangle ADB is an equilateral triangle. $\angle BCD = 54°$ and AB is perpendicular to BC. Find $\angle ADC$.



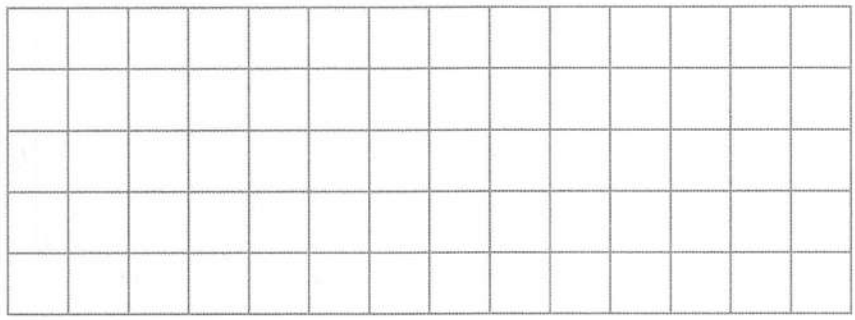
(4) Triangle BCD and triangle ABD are isosceles triangles. Find $\angle BAD$.



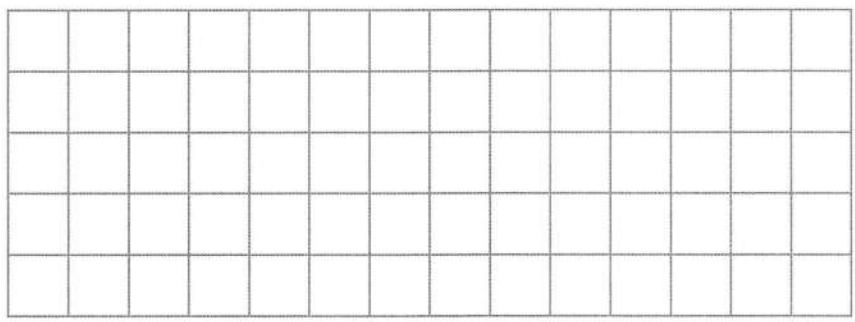
Name: _____ Class: _____ Date: _____

Practice 5 Drawing Triangles

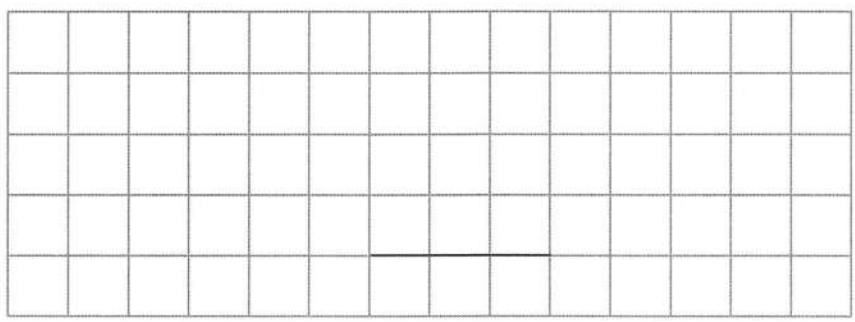
(1) Draw an isosceles triangle.



(2) Draw an obtuse-angled triangle.

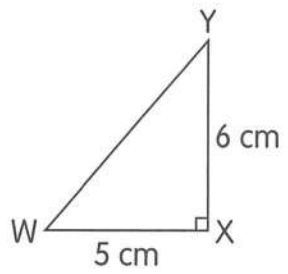


(3) Draw a right-angled triangle ABC with the given line AB.



(4) Draw a triangle WXY in which WX = 5 cm, XY = 6 cm and $\angle WXY = 90°$.

Sketch of triangle WXY



(5) Draw an isosceles triangle ABC in which AB = AC = 6 cm and $\angle BAC = 50°$.

Sketch of triangle ABC

(6) Draw an equilateral triangle JKL of side 7 cm.

Sketch of triangle JKL

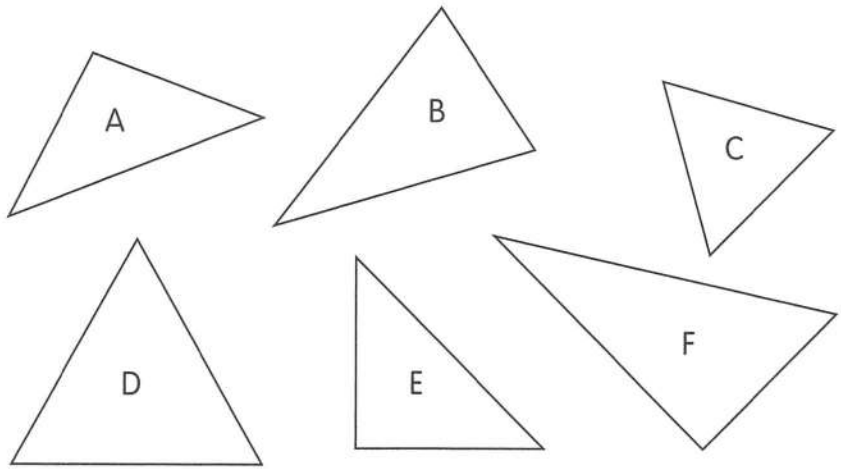
Name: _____ Class: _____ Date: _____

Chapter 14 Review

(1) Look at the figures below.

(a) Which figures are equilateral triangles? _____

(b) Which figures are right-angled triangles? _____



(2) Draw a right-angled triangle.

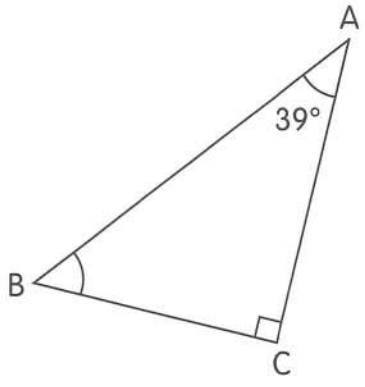
(3) (a) Draw a triangle STU in which ST = 3 cm, TU = 5 cm and $\angle STU = 130°$.

Sketch of triangle STU

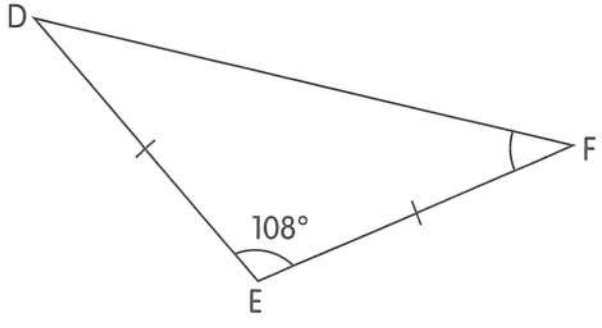
(b) Draw a triangle XYZ in which YZ = 5 cm, $\angle XYZ = 100°$ and $\angle YZX = 30°$.

Sketch of triangle XYZ

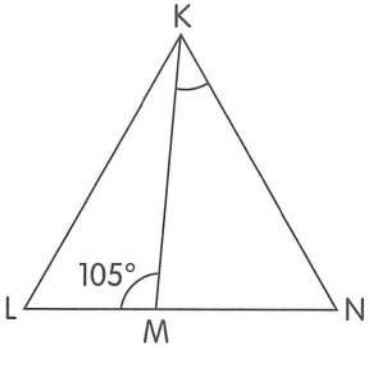
(4) Triangle ABC is a right-angled triangle. Find ∠ABC.



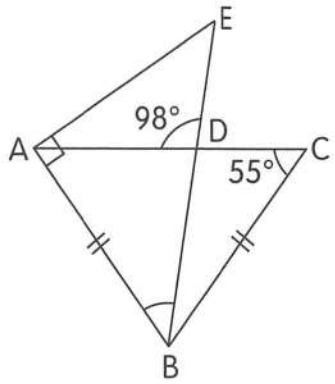
(5) Triangle DEF is an isosceles triangle. Find ∠EFD.



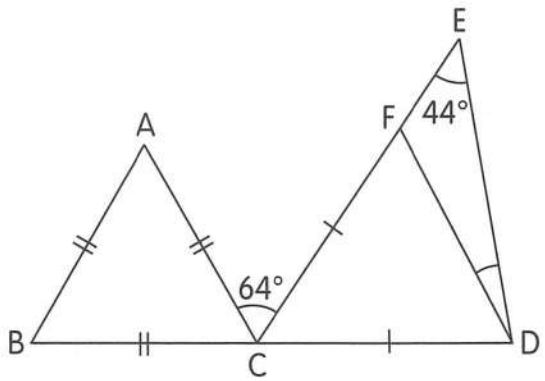
(6) Triangle KLN is an equilateral triangle. Find ∠MKN.



(7) Triangle ABC is an isosceles triangle. Triangle ABE is a right-angled triangle. $\angle ADE = 98°$ and $\angle DCB = 55°$. Find $\angle ABD$.



(8) Triangle ABC is an equilateral triangle. Triangle CDF is an isosceles triangle. BD is a straight line. $\angle ACF = 64°$ and $\angle FED = 44°$. Find $\angle FDE$.



Name: _____ Class: _____ Date: _____

Maths Journal

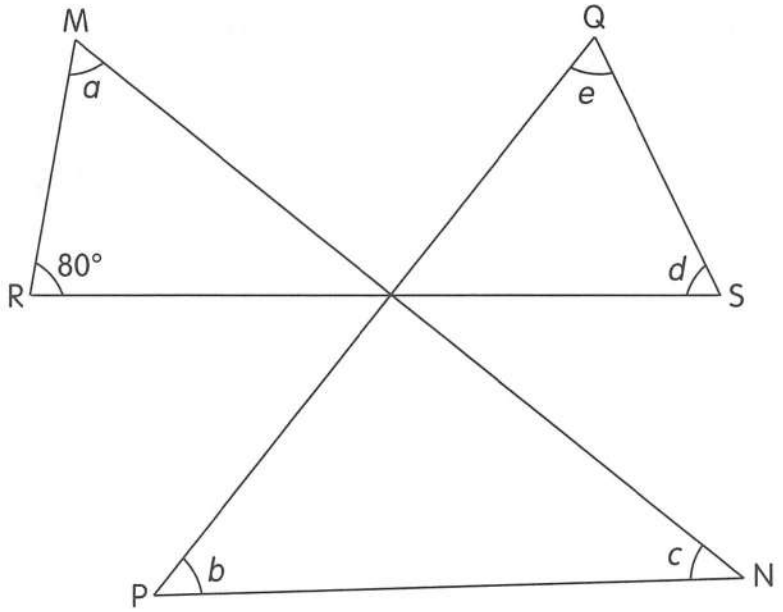
In this chapter, you have learnt about triangles.
What did you find most difficult about triangles? Why?

Put On Your Thinking Cap!

(1) Draw a triangle ABC in which its base BC = 7 cm, its height AD = 8 cm and BD = 3 cm. Measure the lengths of AB and AC.

Sketch of triangle ABC

(2) The following figure is made up of three triangles.
MN, PQ and RS are straight lines.
Find the value of $\angle a + \angle b + \angle c + \angle d + \angle e$.



CHAPTER 15

Quadrilaterals

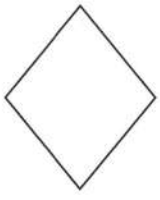
Practice 1A Classifying Quadrilaterals

(1) Fill in the blanks.

(a) 

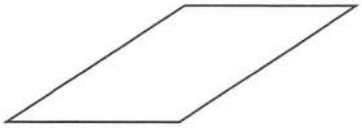
Is this a trapezium? _____

Why? _____

(b) 

Is this a rhombus? _____

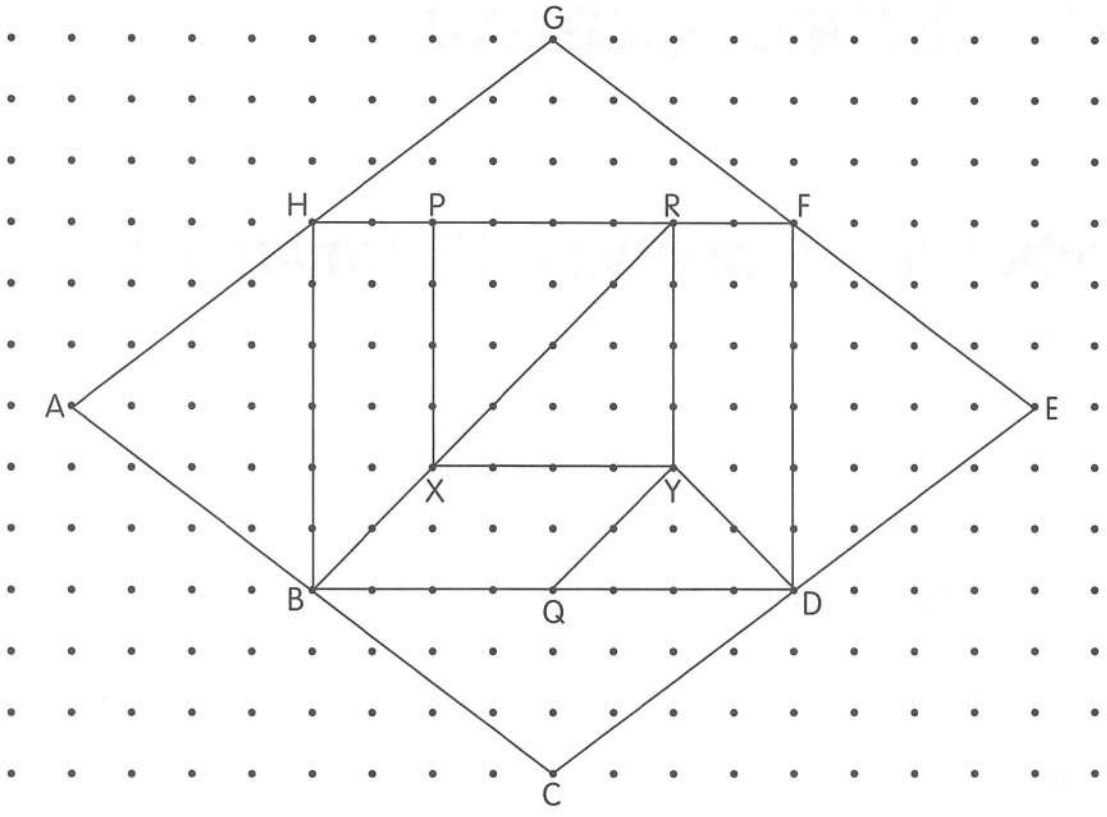
Why? _____

(c) 

Is this a parallelogram? _____

Why? _____

(2) Look at the figure below. Name the following quadrilaterals.



(a) HBDF _____

(b) BQYX _____

(c) RYDF _____

(d) PXYR _____

(e) BDYX _____

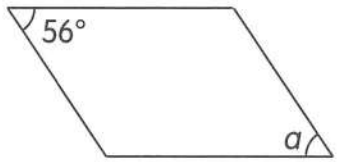
(f) ACEG _____

Name: _____ Class: _____ Date: _____

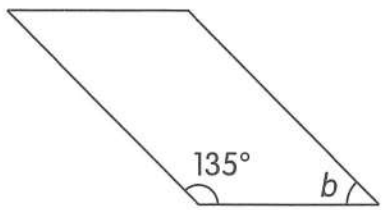
Practice 1B Parallelograms

(1) Find the unknown marked angles in the following parallelograms.

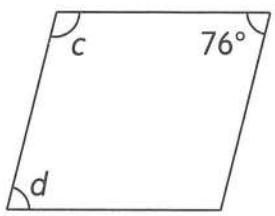
(a)



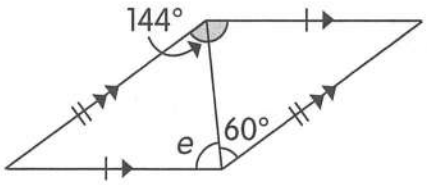
(b)



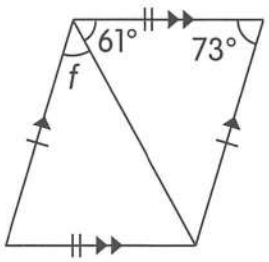
(c)



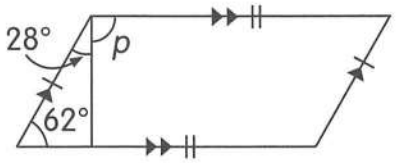
(d)



(e)



(f)

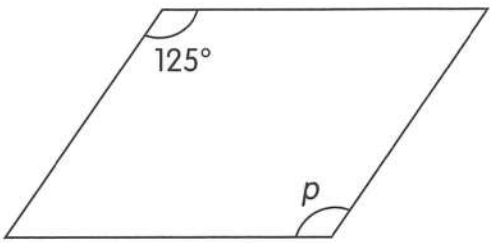


Name: _____ Class: _____ Date: _____

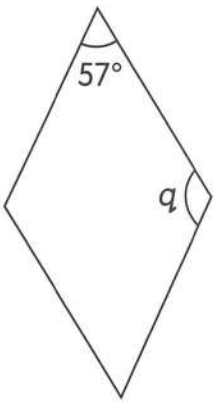
Practice 1C Rhombuses

(1) Find the unknown marked angles in the following rhombuses.

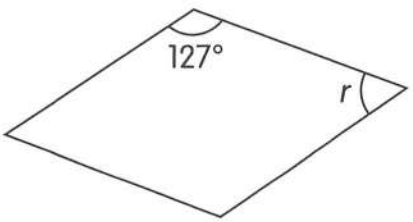
(a)



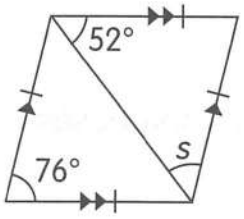
(b)



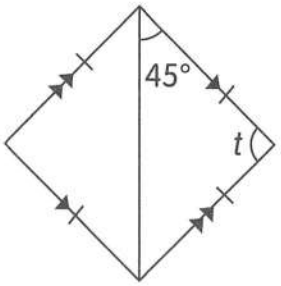
(c)



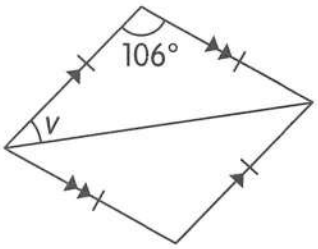
(d)



(e)



(f)

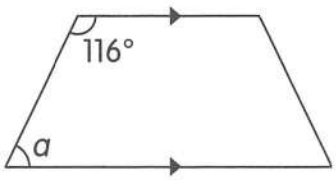


Name: _____ Class: _____ Date: _____

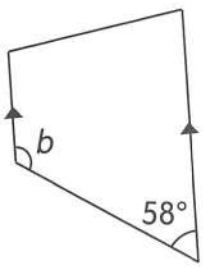
Practice 1D Trapeziums

(1) Find the unknown marked angles in the following trapeziums.

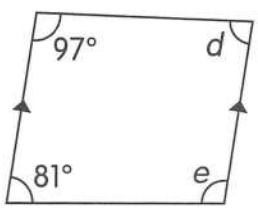
(a)



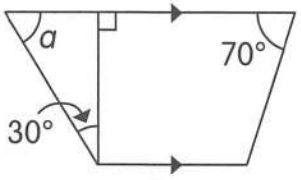
(b)



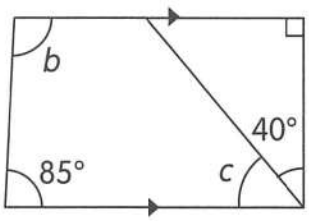
(c)



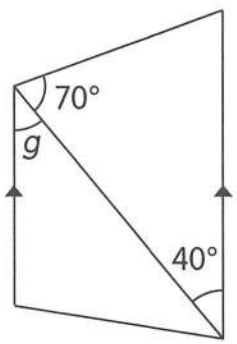
(d)



(e)



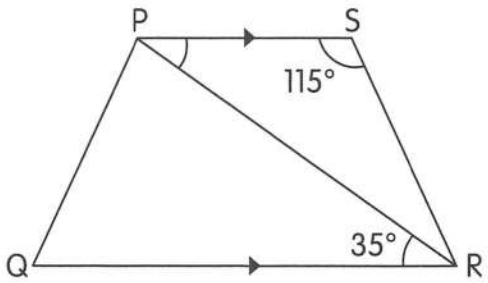
(f)



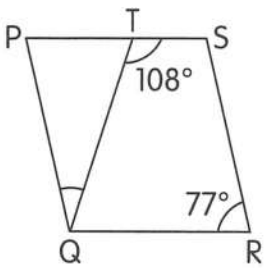
Name: _____ Class: _____ Date: _____

Practice 2 Finding Unknown Angles

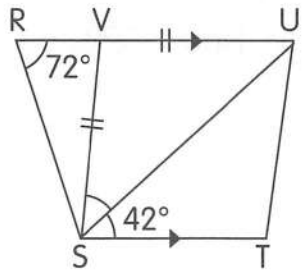
(1) PQRS is a trapezium. $\angle PSR = 115°$ and $\angle QRP = 35°$. Find $\angle SPR$.



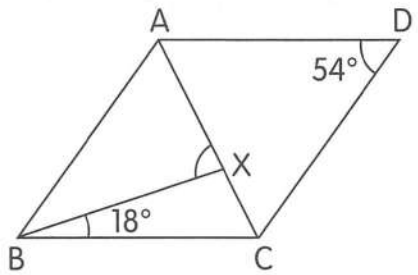
(2) PQRS is a parallelogram. $\angle STQ = 108°$ and $\angle QRS = 77°$. Find $\angle PQT$.



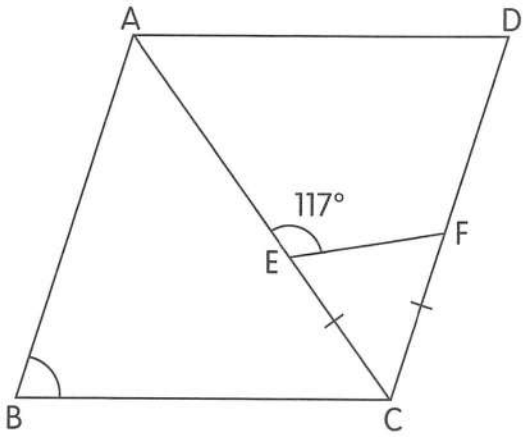
(3) RSTU is a trapezium. $\angle VRS = 72°$ and $\angle UST = 42°$. Find $\angle VSU$.



(4) ABCD is a rhombus. $\angle ADC = 54°$ and $\angle CBX = 18°$. Find $\angle BXA$.



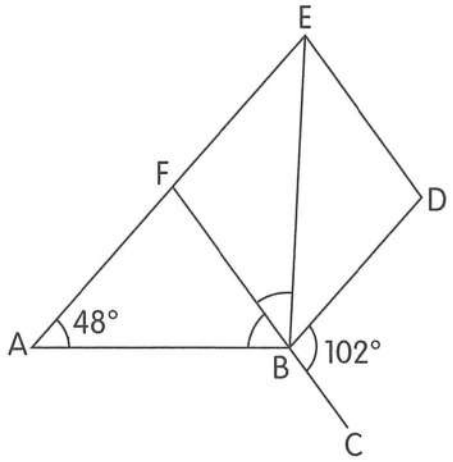
(5) In rhombus ABCD, ECF is an isosceles triangle and $\angle AEF = 117°$. Find $\angle ABC$.



(6) In the figure, FBC and AFE are straight lines. BDEF is a rhombus.

(a) Find $\angle$FBE.

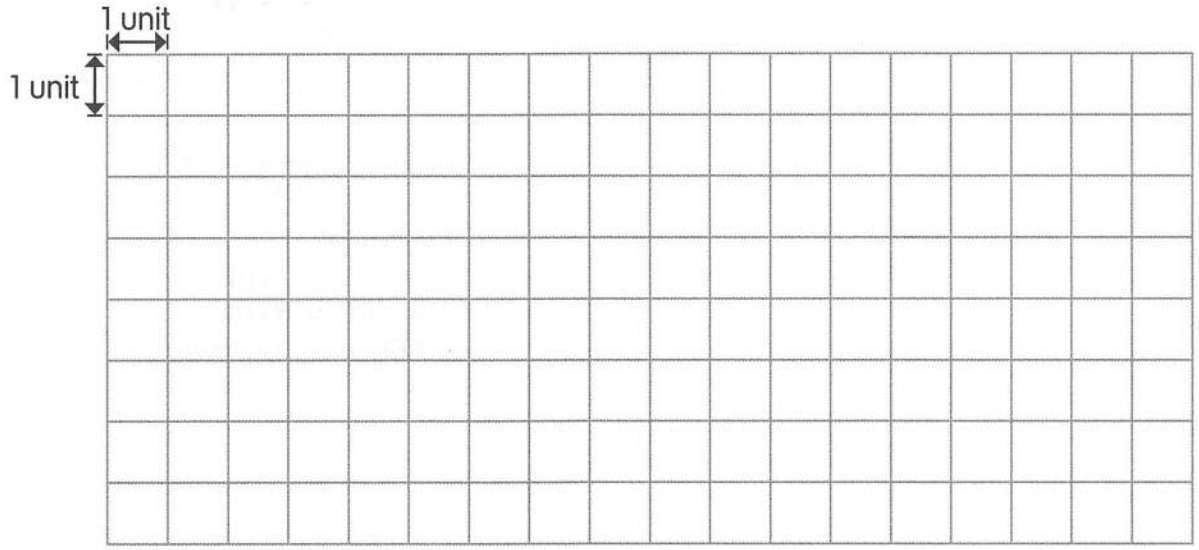
(b) Find $\angle$ABF.



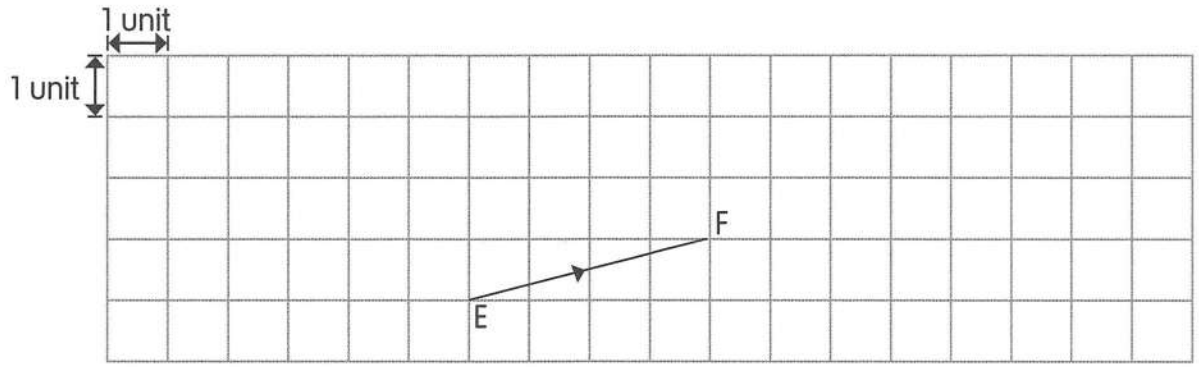
Name: _____ Class: _____ Date: _____

Practice 3 Drawing Four-sided Figures

(1) Draw a parallelogram ABCD in which AB = 5 units.



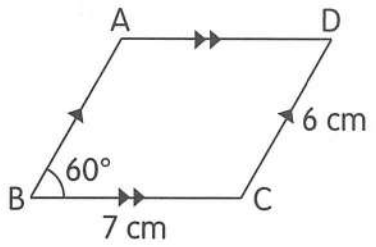
(2) Draw a rhombus EFGH with the given line EF.



(3) Draw a trapezium PQRS in which PS = 3 units and QR = 5 units.

(4) Draw a parallelogram ABCD in which BC = 7 cm, CD = 6 cm and $\angle ABC = 60°$.

Sketch of parallelogram ABCD



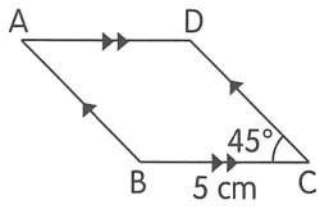
Remember:
AD = BC = 7 cm
AB = CD = 6 cm
$\angle ABC = \angle ADC = 60°$

(5) Draw a parallelogram EFGH in which FG = 6 cm, GH = 8 cm and ∠FGH = 50°.

Sketch of parallelogram EFGH

(6) Draw a rhombus ABCD in which BC = 5 cm and $\angle BCD = 45°$.

Sketch of rhombus ABCD

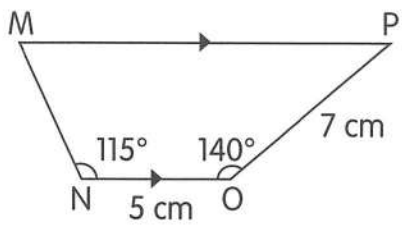


(7) Draw a rhombus EFGH in which FG = 6 cm and $\angle FGH = 125°$.

Sketch of rhombus EFGH

(8) Draw a trapezium MNOP in which NO = 5 cm, $\angle$MNO = 115°, $\angle$NOP = 140° and OP = 7 cm.

Sketch of trapezium MNOP



(9) Draw a trapezium ABCD in which AD // BC, BC = 8 cm, AB = 5 cm, $\angle ABC = 60°$ and $\angle DCB = 80°$.

Sketch of trapezium ABCD

(10) Draw a trapezium CDEF in which CF // DE, DE = 8 cm, CF = 6 cm, CD = 4 cm and $\angle CDE = 80°$.

Sketch of trapezium CDEF

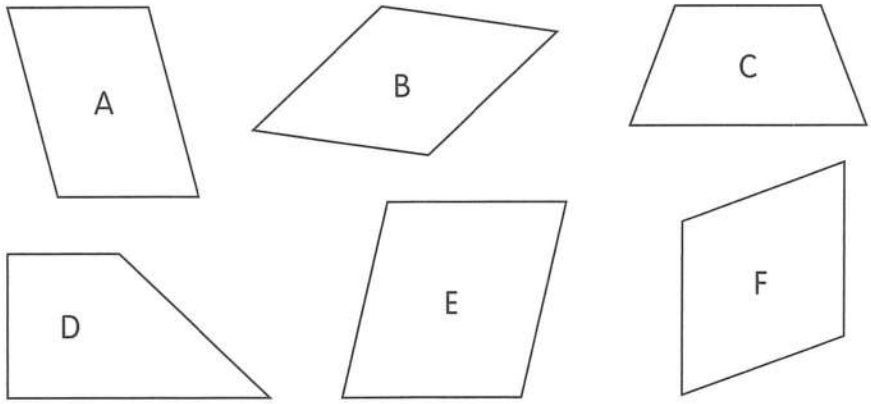
Name: _____ Class: _____ Date: _____

Chapter 15 Review

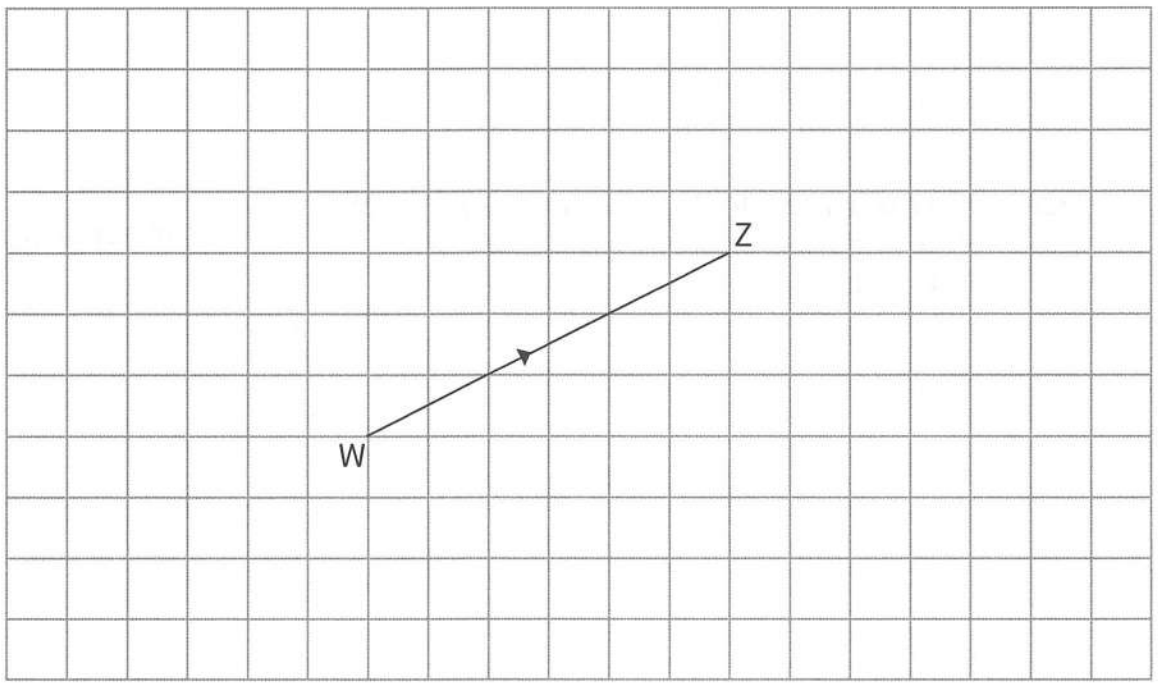
(1) Look at the figures below.

(a) Which figures are rhombuses? _____

(b) Which figures are trapeziums? _____



(2) Draw a rhombus WXYZ using the given line WZ.



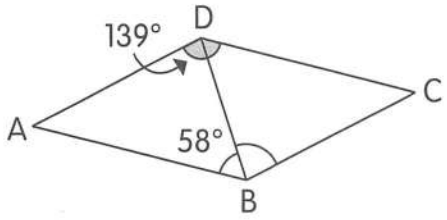
(3) (a) Draw a parallelogram ABCD in which AD // BC and AB // DC = 5 cm, AD = 7 cm and $\angle DAB = 60°$.

Sketch of parallelogram ABCD

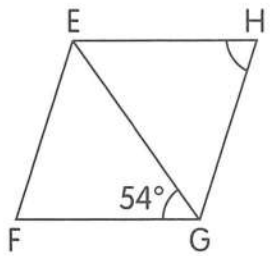
(b) Draw a trapezium PQRS in which PQ // SR, PQ = 5 cm, SP = 4 cm, $\angle PQR = 85°$ and $\angle QPS = 70°$.

Sketch of trapezium PQRS

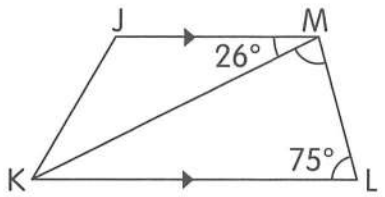
(4) ABCD is a parallelogram. Find ∠CBD.



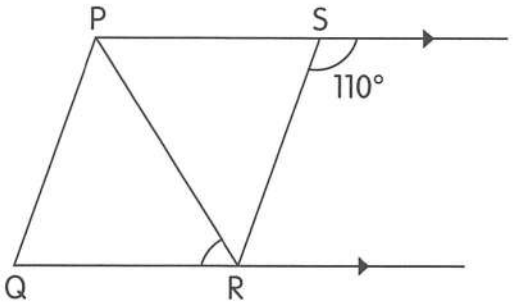
(5) EFGH is a rhombus. Find ∠EHG.



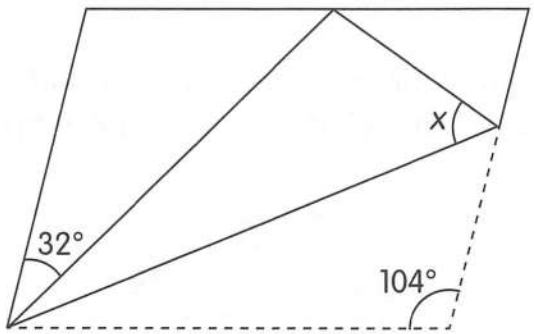
(6) JKLM is a trapezium. Find ∠KML.



(7) PQRS is a rhombus. Find $\angle PRQ$.



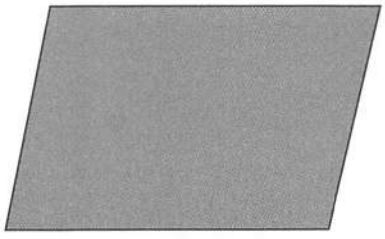
*(8) A piece of paper in the shape of a parallelogram is folded as shown. Find $\angle x$.



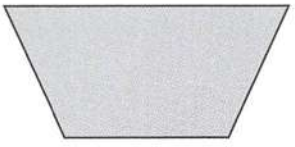
Name: _____ Class: _____ Date: _____

Maths Journal

Your classmate was absent from school. Help your classmate identify and explain which of the following figures is a rhombus, a parallelogram or a trapezium.



A



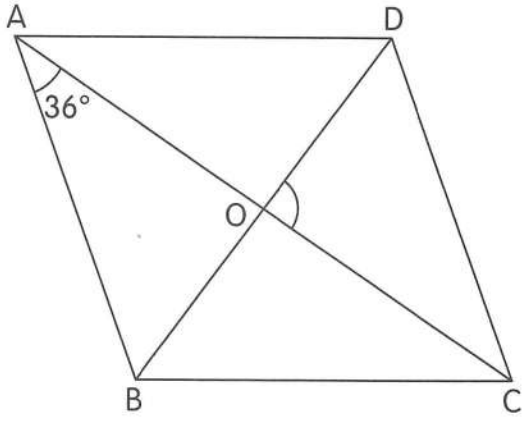
B

C

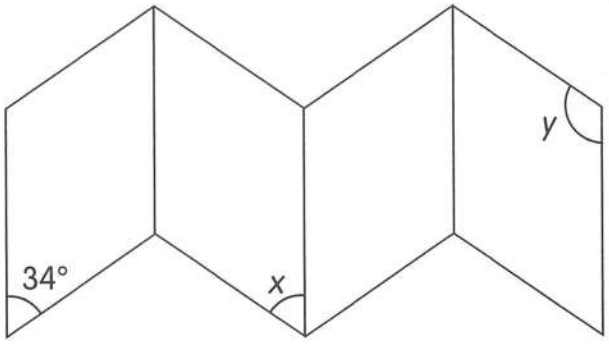
Name: _____ Class: _____ Date: _____

Put On Your Thinking Cap!

(1) ABCD is a rhombus. Find ∠DOC.



(2) The figure is made up of 4 identical parallelograms.
Find the difference between $\angle x$ and $\angle y$.



Name: _____ Class: _____ Date: _____

Review 6

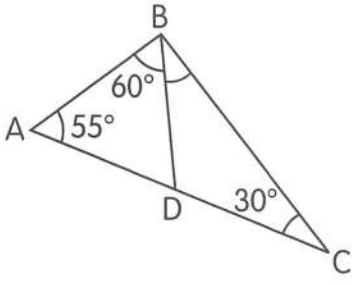
Section A

Each question has four options. Choose the correct option (1, 2, 3 or 4). Write in the brackets provided.

(1) Which of the following statements is true?

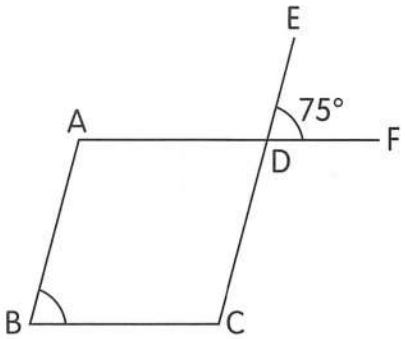
1. A rhombus does not have equal sides.
2. A trapezium has two pairs of parallel sides.
3. A parallelogram has two pairs of equal sides.
4. A parallelogram has only one pair of parallel sides. ( )

(2) ABC is a triangle. Find ∠DBC.



1. 30°
2. 35°
3. 55°
4. 85° ( )

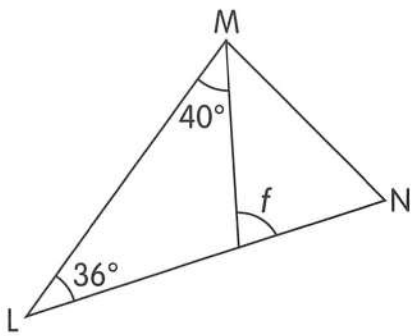
(3) ABCD is a rhombus. CDE and ADF are straight lines.
Find ∠ABC.



1. 75°
2. 95°
3. 105°
4. 150°

( )

(4) MLN is a triangle. Find ∠*f*.



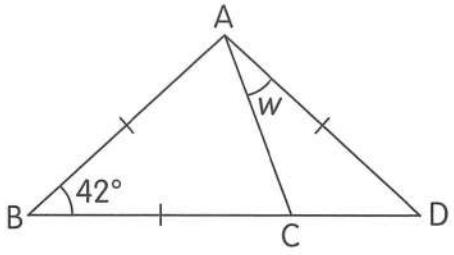
1. 38°
2. 52°
3. 54°
4. 76°

( )

Section B

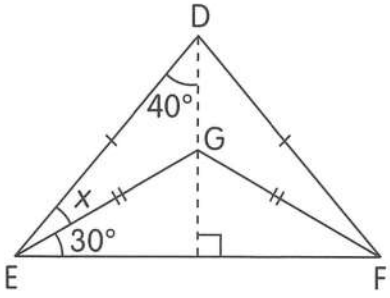
Solve the problems. Show your working clearly and write your answers in the spaces provided.

(5) AB = BC = AD and BCD is a straight line. Find $\angle w$.



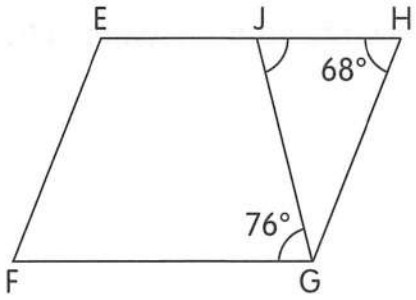
Ans: _____°

(6) DE = DF and EG = FG. $\angle EDG = 40°$ and $\angle GEF = 30°$.
Find $\angle x$.



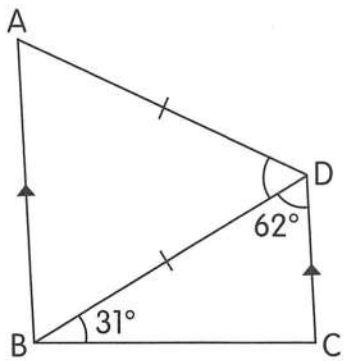
Ans: _____°

(7) EFGH is a parallelogram. Find ∠HJG.



Ans: _____°

(8) ABCD is a trapezium. ABD is an isosceles triangle.
Find ∠ADB.



Ans: _____°

Section C

Solve the problems. Show your working clearly and write your answers in the spaces provided. The use of an approved calculator is expected, where appropriate.

(9) Draw a trapezium PQRS in which PQ // SR, PQ = 10 cm, SR = 8 cm, QR = 4.4 cm and $\angle PQR = 74°$.

Sketch of trapezium PQRS

(10) Draw an isosceles triangle GHI in which HI = 7 cm and ∠HIG = 45° and ∠GHI is a right angle.

Sketch of triangle GHI

Name: _____ Class: _____ Date: _____

Revision 2

Paper 1

Section A

For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write your answers in the brackets provided.

(1) 7 010 004 = 7 000 000 + _____ + 4. What is the missing number?

1. 10 000
2. 1000
3. 100
4. 10

( )

(2) Find the value of 48 ÷ 8 + 13 × 3.

1. 45
2. 54
3. 57
4. 75

( )

(3) Find the value of 96 × 300.

1. 288
2. 2880
3. 28 800
4. 288 000

( )

(4) Find the value of $84 \div 400$.

1. 0.21
2. 0.84
3. 2.1
4. 8.4 ( )

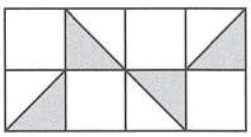
(5) What is the product of 2 and $\frac{7}{4}$?

1. $\frac{1}{4}$
2. $\frac{7}{8}$
3. $3\frac{1}{2}$
4. $3\frac{3}{4}$ ( )

(6) Peter has 5 red apples and 7 green apples. What is the ratio of the number of red apples to the total number of apples Peter has?

1. 5 : 7
2. 5 : 12
3. 7 : 5
4. 7 : 12 ( )

(7) What percentage of the figure is shaded?



1. 25%
2. 35%
3. 40%
4. 50% ( )

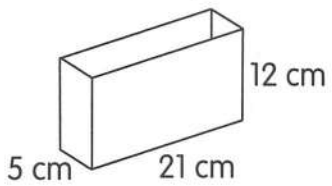
(8) What is 16.006 ℓ in litres and millilitres?

1. 16 ℓ 6 ml
2. 16 ℓ 600 ml
3. 160 ℓ 6 ml
4. 1600 ℓ 6 ml

( )

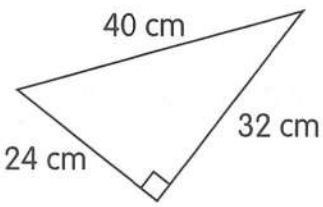
(9) What is the greatest number of 1-cm cubes that can be put into the box?

1. 38
2. 1200
3. 1260
4. 1620



( )

(10) What is the area of the triangle?



1. 192 cm^2
2. 240 cm^2
3. 320 cm^2
4. 384 cm^2

( )

(11) Find the missing number.

$\frac{3}{8} \times \frac{\square}{7} = \frac{3}{14}$

1. 1
2. 2
3. 3
4. 4

( )

(12) The ratio of the number of David's stamps to Ben's stamps to Cheryl's stamps was 2 : 3 : 6. After Cheryl gave half of her stamps to David, what is the ratio of the number of Ben's stamps to the number of Cheryl's stamps?

1. 1 : 1
2. 1 : 2
3. 3 : 5
4. 5 : 3

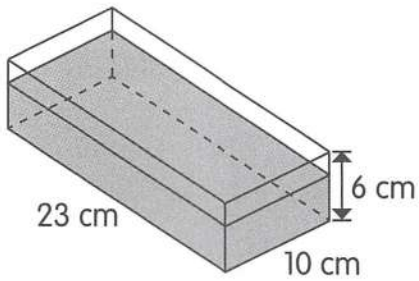
( )

(13) Mardinah bought a mobile phone at a discount of 13%. The usual price of the mobile phone was $640. How much was the discount?

1. $83.20
2. $82.30
3. $59.80
4. $42.20

( )

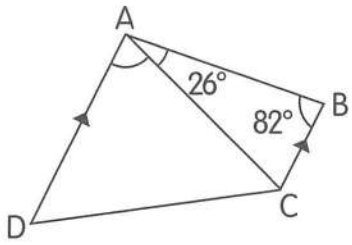
(14) What is the volume of the water in the container when it is $\frac{2}{3}$-full?



1. 1380 cm^3
2. 920 cm^3
3. 460 cm^3
4. $153\frac{1}{3}$ cm^3

( )

(15) In the diagram, AD // BC, ∠BAC = 26° and ∠ABC = 82°. Find ∠DAC.



1. 98°
2. 72°
3. 52°
4. 26°

( )

Section B

Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(16) Write eight million, one hundred thousand and twenty-three in numerals.

Ans: _____

(17) What is the missing number?

9.42 = 9420 ÷ _____

Ans: _____

(18) What is the value of 2.34 × 300?

Ans: _____

(19) What is the missing number?

1 000 000 + 650 000 + 400 + 2 = _____

Ans: _____

(20) Find the value of 352 × 500.

Ans: _____

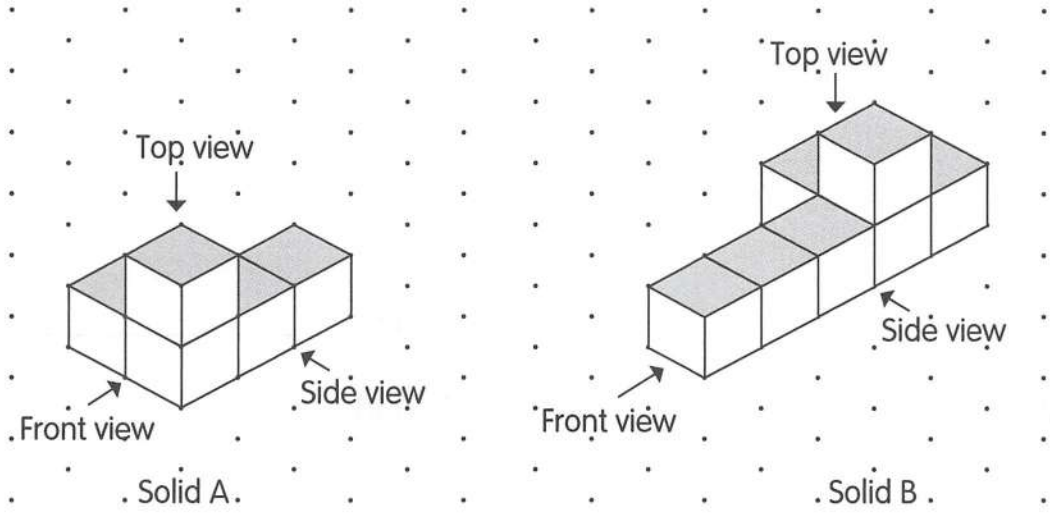
(21) Susan is 10 years old. Kate is twice as old as Susan. Susan is twice as old as Steven. Find the ratio of Susan's age to Kate's age to Steven's age.

Ans: _____

(22) What is 48% of 450?

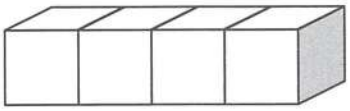
Ans: _____

(23) Which view of Solid A and Solid B is the same? Draw it.



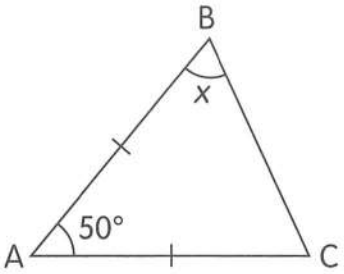
Ans: _____

(24) The figure below is made up of identical cubes each of edge 1 cm. What is the volume of the figure?



Ans: _____ cm^3

(25) ABC is an isosceles triangle. $\angle BAC = 50°$. Find $\angle x$.



Ans: _____ °

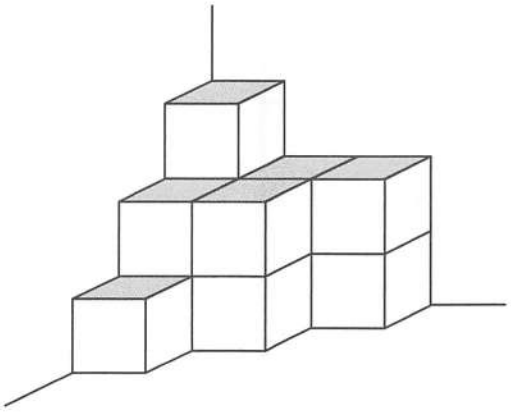
(26) Mrs Tan baked an equal number of pineapple tarts and cheese tarts at first. After she gave away 23 pineapple tarts and 65 cheese tarts, she had 4 times as many pineapple tarts as cheese tarts. How many cheese tarts did she have at first?

Ans: _____

(27) Express $\frac{7}{4} \times \frac{2}{5}$ as a decimal.

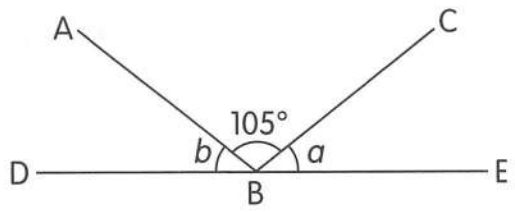
Ans: _____

(28) The figure is made up of cubes. The edge of each cube is 1 cm. What is the volume of the given solid?



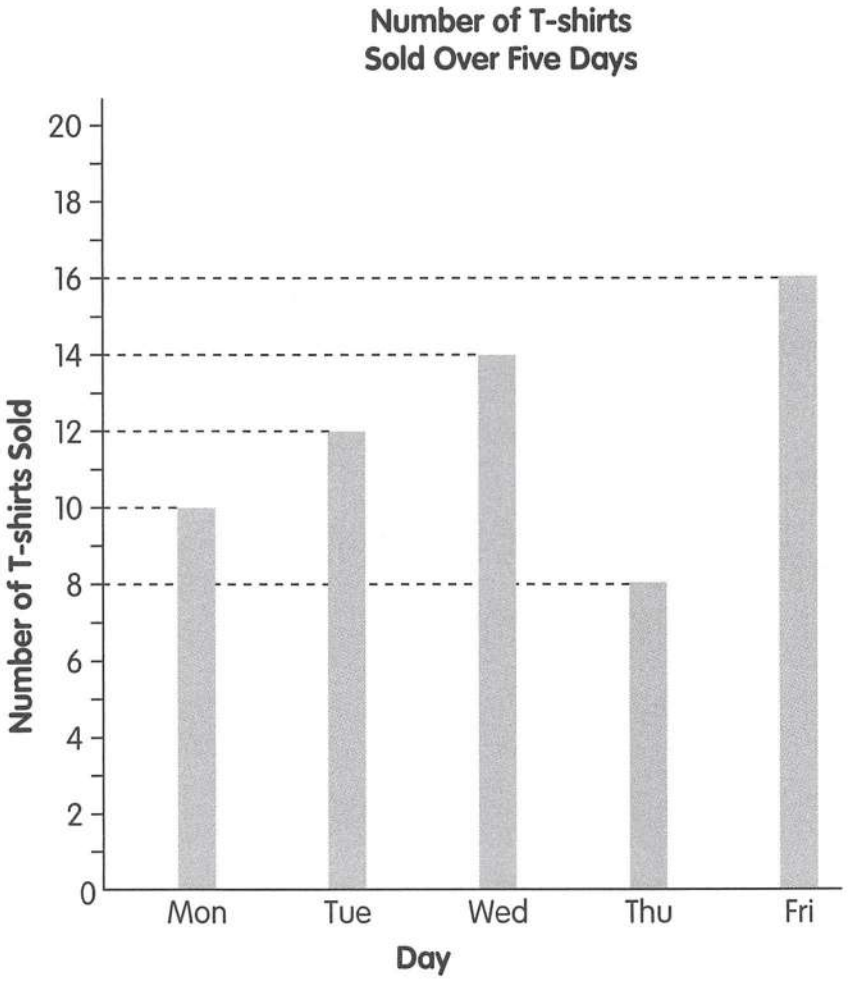
Ans: _____ cm^3

(29) DBE is a straight line. $\angle ABC = 105°$ and $\angle a = \angle b$. Find $\angle b$.



Ans: _____°

(30) The bar graph shows the number of T-shirts a shop sold over five days. What was the average number of T-shirts sold on each day?



Ans: _____

Paper 2

Show your working clearly and write your answers in the spaces provided. The use of an approved calculator is expected, where appropriate.

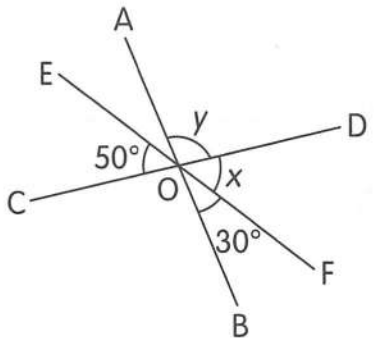
(1) Express 28 : 77 : 49 in its simplest form.

Ans: _____

(2) Find the value of 3 000 000 + 3000 + 3.

Ans: _____

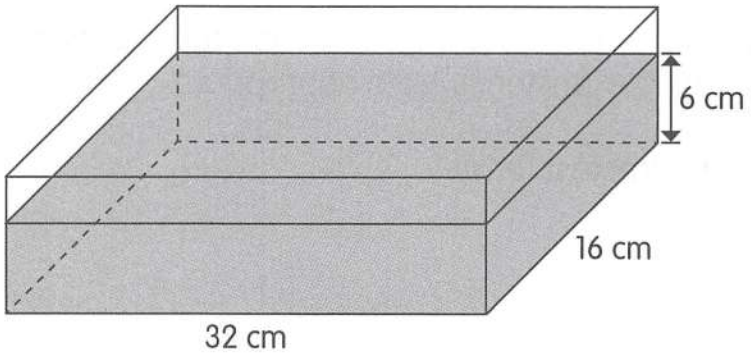
(3) AB, CD and EF are straight lines. $\angle COE = 50°$ and $\angle BOF = 30°$.
Find $\angle x$ and $\angle y$.



Ans: $\angle x$ _____ °

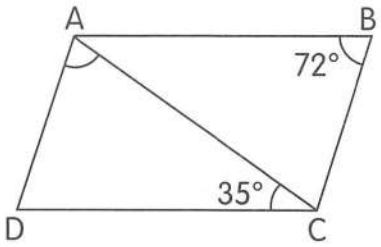
$\angle y$ _____ °

(4) Find the volume of water in the tank.



Ans: _____ cm^3

(5) ABCD is a parallelogram. $\angle ABC = 72°$ and $\angle ACD = 35°$. Find $\angle DAC$.



Ans: _____ °

(6) The table shows the parking charges at a carpark.

First hour	$3
Every additional hour or part thereof	$6

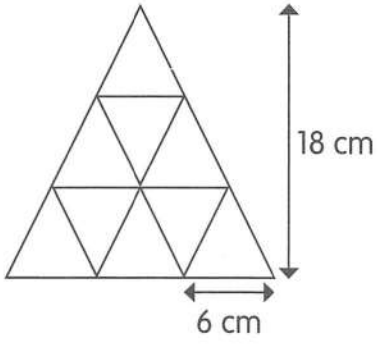
David parked his car at the carpark from 3.30 p.m. to 5.45 p.m. on Friday. How much did he pay for parking his car?

Ans: _____

(7) Susie prepared 12 litres of fruit punch. She used $\frac{1}{6}$ of fruit punch for Caleb's birthday party. How many litres of fruit punch did she have left? Express your answer in millilitres.

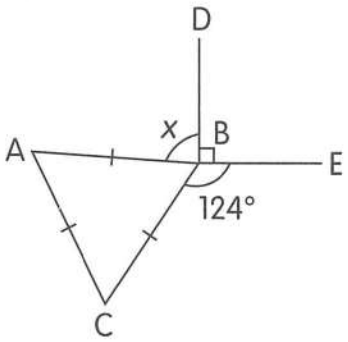
Ans: _____

(8) The figure below is made up of 9 identical triangles. The total height of the figure is 18 cm. What is the area of the figure?



Ans: _____

(9) ABC is an equilateral triangle. ∠DBE is a right angle and ∠CBE = 124°.
Find ∠x.



Ans: _____

(10) In a test, Andrew, Betty and Candy scored an average of 64 marks.
The table shows the marks obtained by each pupil.

Name	Marks obtained
Andrew	?
Betty	56
Candy	65

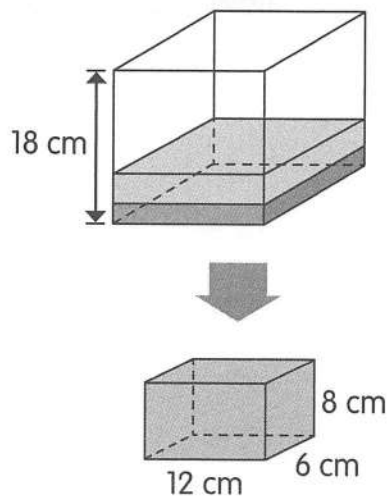
How many marks did Andrew obtain?

Ans: _____

(11) Peter is at the cinema. There are 10 seats on his left and 11 seats on his right. There are 8 rows in front of him and 12 rows behind him. How many seats are there in the cinema altogether?

Ans: _____

(12) A cubical tank of edge 18 cm was $\frac{1}{3}$ filled with water. The water was poured into an empty rectangular tank measuring 12 cm by 6 cm by 8 cm until it was completely filled. How much water was left in the cubical tank? Give your answer in millilitres.



Ans: _____

(13) Mr Lim bought some packets of sweets. There were 36 sweets in each packet. He gave 15 sweets to each of his 38 pupils and had 330 sweets left. How many packets of sweets did he buy?

Ans: _____

(14) A fish tank measures 40 cm by 25 cm by 24 cm. It is filled with water from a tap. The fish tank is $\frac{5}{8}$-full in 6 minutes. Find the volume of water that flows from the tap each minute.

Ans: _____

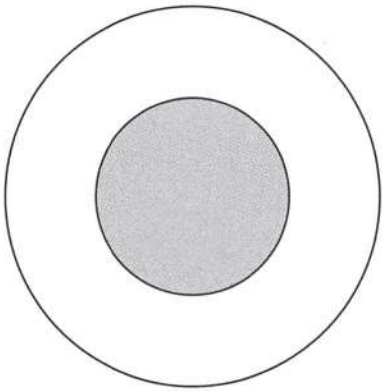
(15) There are 1500 pupils in a school. 23% of the pupils in the school are Malays. 68% of the pupils are Chinese. The rest of the pupils are Indians. How many more Chinese pupils than Malay pupils are there?

Ans: _____

(16) Neesa had 2 kg of prawns. 18% of the prawns were fried and 25% of the prawns were boiled. How many kilograms of prawns did Neesa cook?

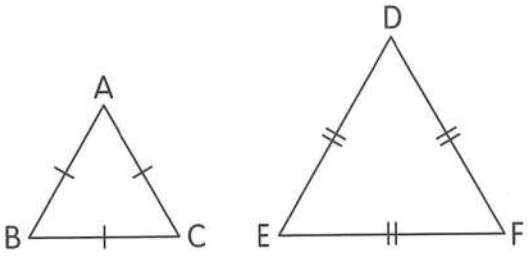
Ans: _____

(17) In the following diagram, the ratio of the area of the small circle to the area of the large circle is 3 : 11. The area of the small circle is 87 cm^2. What is the area of the unshaded part?

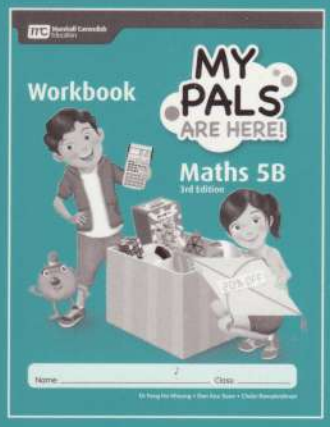


Ans: _____

*(18) The ratio of the perimeters of two equilateral triangles is 2 : 9. The perimeter of triangle ABC is 14 cm. What is the length of one side of triangle DEF?



Ans: _____



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