

Write your name here						
Surname	Other names					
<b>Edexcel International Primary Curriculum</b>	Centre Number <table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr></table>					
	Candidate Number <table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr></table>					
<b>Mathematics</b> <b>Year 6</b> <b>Achievement Test</b>						
Wednesday 5 June 2013 – Morning <b>Time: 1 hour</b>	Paper Reference <b>JMA01/01</b>					
<b>You do not need any other materials.</b>	Total Marks <table border="1"><tr><td></td></tr></table>					

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- Calculators are **NOT** allowed.



### Information

- The total mark for this paper is 60.
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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PEARSON

## SECTION A

Answer ALL questions.

In Section A put a cross in one box ☐ to indicate your answer. If you change your mind, put a line through the box ☒ and then put a cross in another box ☐.

Each question in Section A is worth one mark.

1 Look at the number square.

The shaded squares form part of a sequence.

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

Which two numbers should be shaded to complete the sequence?

1 and 3

☐

3 and 4

☐

6 and 12

☐

10 and 15

☐

2 Here are four number cards.

Which number card has the same value as seven hundred and seven?

77

☐

707

☐

770

☐

7007

☐


- 3 The tally chart shows how many students go running on four days.

Day	Number of students
Monday	
Tuesday	
Wednesday	
Thursday	

How many **more** students go running on Monday than on Wednesday?

5

☐

6

☐

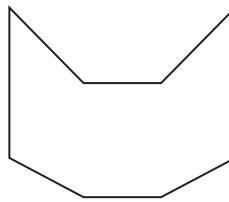
7

☐

8

☐

- 4 What is the name of this shape?



hexagon

☐

octagon

☐

pentagon

☐

quadrilateral

☐

- 5 Here is a number pattern.

The rule is subtract 8

89, 81,

65, 57

What is the missing number?

1

☐

8

☐

73

☐

80

☐

6 Here are four number cards.

$$4 \times 4$$

A

$$3 \times 7$$

B

$$2 \times 9$$

C

$$2 \times 8$$

D

Which two cards have the same answer?

A and B



B and C



C and D

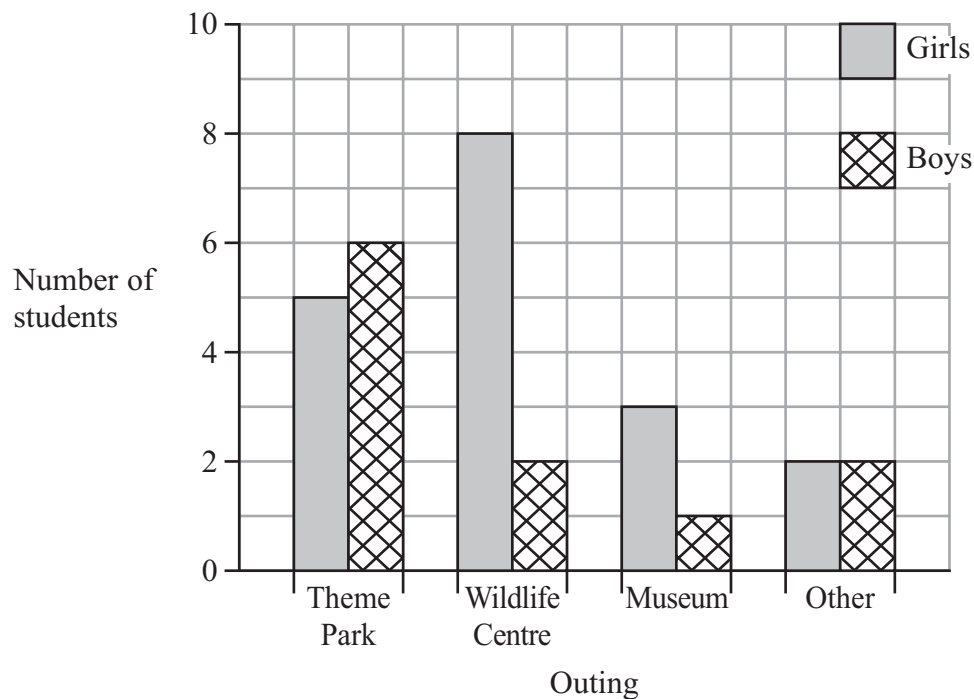


D and A



7 Mr Patel asked the students in his class where they would like to go on an outing.

The results are shown on the graph.



Which outing did most students choose?

Theme Park



Wildlife Centre



Museum

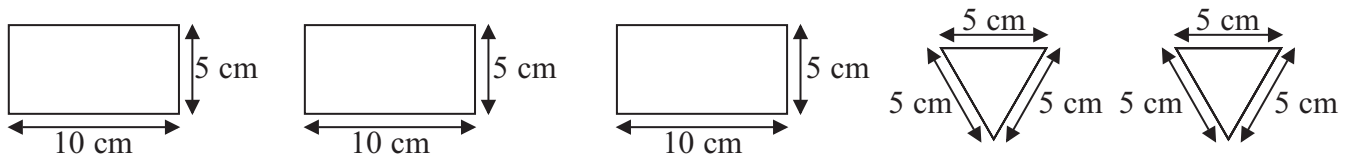


Other



8 Habib constructs a three-dimensional shape with 5 faces.

He uses these shapes.



Which shape does Habib construct?

triangular  
prism



rectangular  
prism



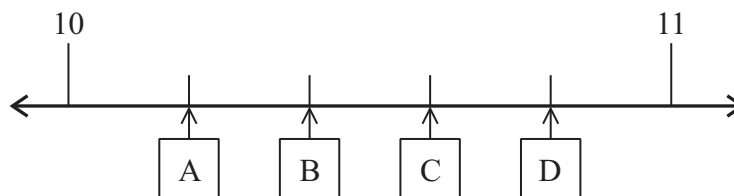
triangular-based  
pyramid



rectangular-based  
pyramid



9 Which point on the number line represents the position of 10.4?



A



B



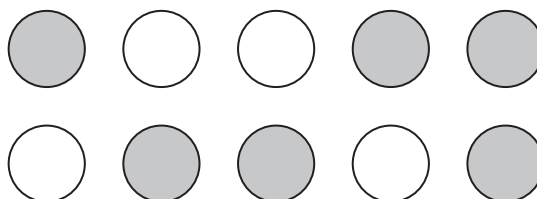
C



D



10 Which fraction of this set is shaded?



$\frac{4}{10}$



$\frac{4}{6}$



$\frac{6}{4}$



$\frac{3}{5}$



11 Petra writes a number pattern.

She says:

My rule is double the number before.

The 4th number in my pattern is 24.

What is the first number in Petra's pattern?

2

☐

3

☐

6

☐

12

☐

12 What is the perimeter of a rectangle 6 cm long and 4 cm wide?

10 cm

☐

16 cm

☐

20 cm

☐

24 cm

☐

13 Bruno records the number of lengths he swims on five days.

7	8	5	8	6
---	---	---	---	---

What is the mode?

5

☐

6

☐

7

☐

8

☐

14 Here is a number statement.

$$\boxed{\phantom{00}} = 1 - \boxed{\phantom{00}}$$

Which number will fit in **both** boxes to make the statement correct?

0

☐

0.1

☐

0.5

☐

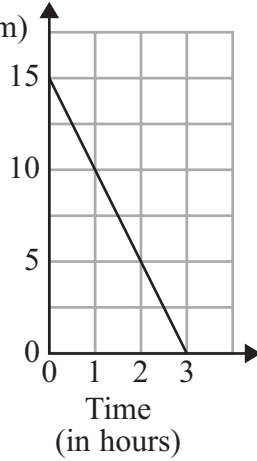
1

☐

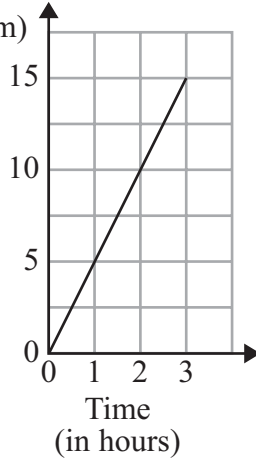

15 Cheng is walking towards his home.

Which graph shows him getting **closer** to home?

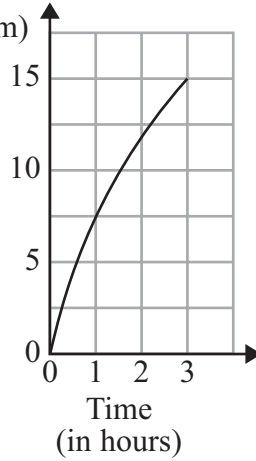
Distance  
from  
home  
(in km)



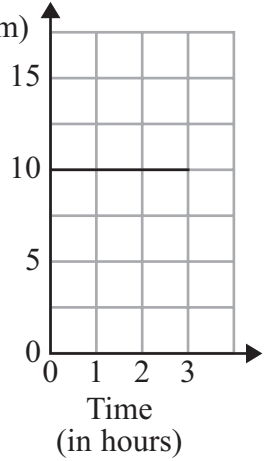
Distance  
from  
home  
(in km)



Distance  
from  
home  
(in km)



Distance  
from  
home  
(in km)



16 Which of these letters has two perpendicular lines?



17 Which of the following is  $\frac{1}{5}$  written as a decimal?

2.0  
☐

1.5  
☐

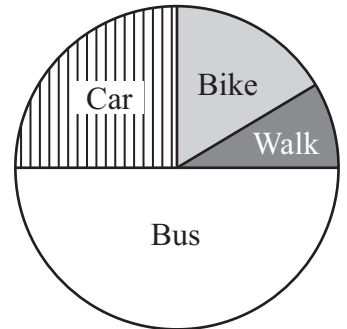
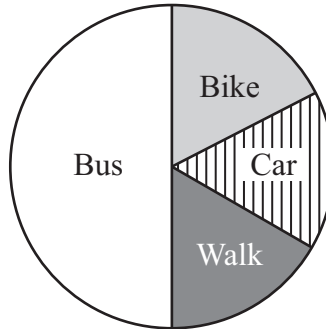
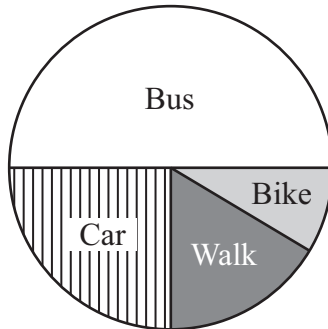
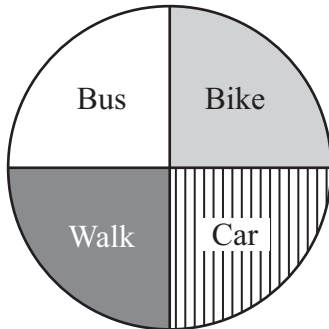
0.2  
☐

0.15  
☐

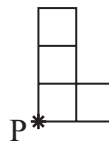
18 The tally chart shows how 24 students travel to school.

Bus	
Bike	
Car	
Walk	

Which pie chart shows the information in the tally chart?

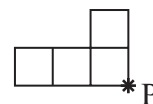
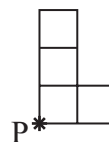
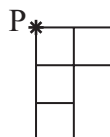
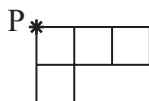


19 Magda draws a shape made of 4 squares.



She rotates the shape 90° clockwise about point P.

Which diagram shows the position of the shape after it has been rotated?



**20** Zina is working out a calculation.

She rounds both numbers to the nearest whole number.

The answer is 5

Which calculation is she working out?

$13.56 - 8.24$



$13.56 - 8.49$



$13.56 - 8.91$



$13.56 - 9.51$



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**TOTAL FOR SECTION A IS 20 MARKS**

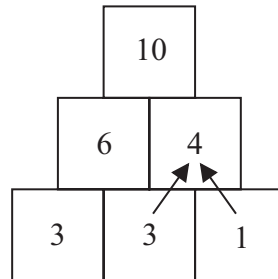


## SECTION B

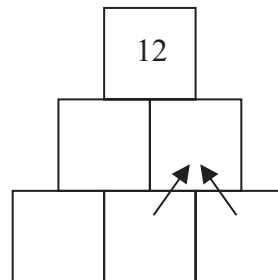
Answer ALL questions.

21 Here is a number pyramid.

You add two numbers to work out the number that goes on top of them.



Using the same rule, complete this number pyramid.



(Total for Question 21 is 2 marks)



**22** Mr Singh asked the students in his class to choose their favourite colour.

The table shows his results.

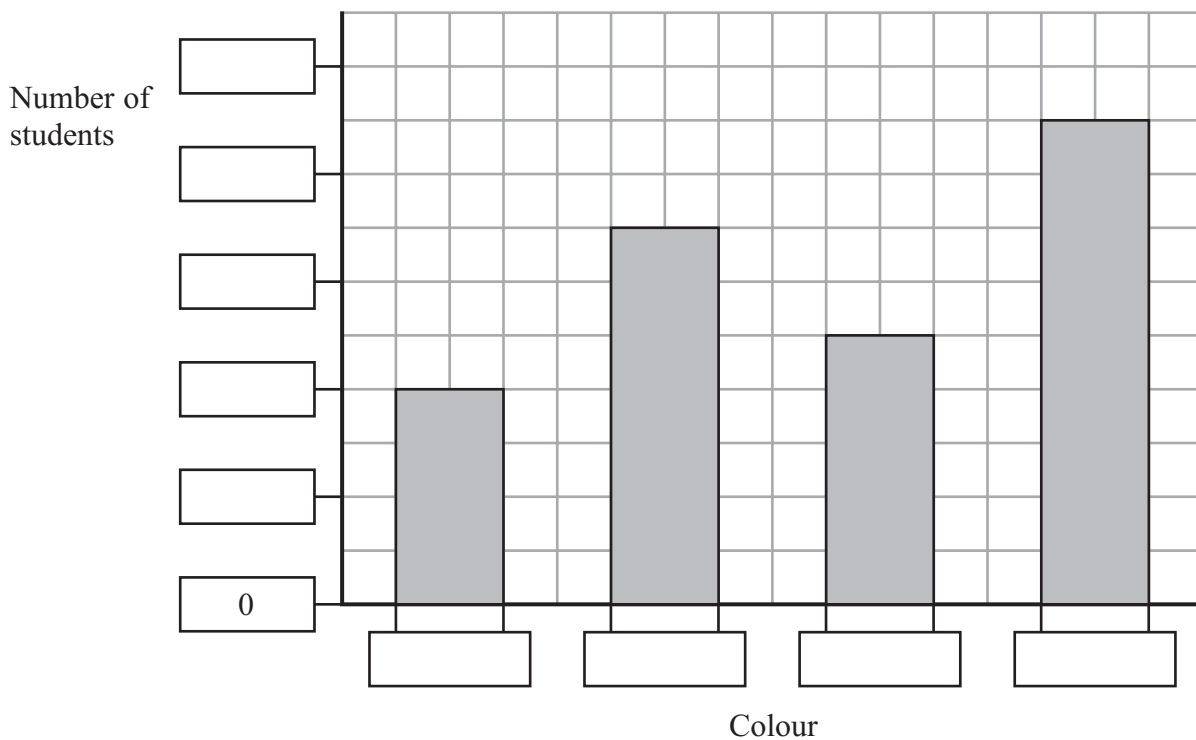
Colour	Number of students
Red	7
Blue	5
Green	9
Yellow	4

(a) How many students took part in the survey?

..... students  
(1)

(b) The graph shows the information from the table.

Fill in **all** the missing labels.



(2)

(Total for Question 22 is 3 marks)

**23** Circle two calculations that have an answer **4 remainder 1**

$17 \div 4$

$14 \div 3$

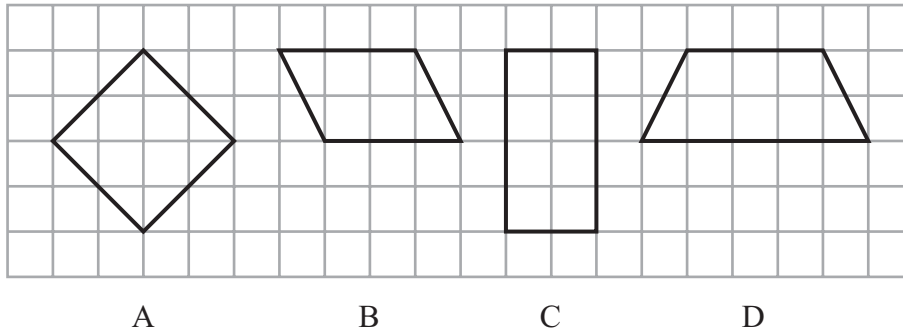
$17 \div 5$

$21 \div 4$

$21 \div 5$

(Total for Question 23 is 2 marks)

**24** Here are four shapes.



Complete the table to show how many lines of symmetry each shape has.

	0 lines of symmetry	1 line of symmetry	2 lines of symmetry	3 lines of symmetry	4 lines of symmetry
Shape					

(Total for Question 24 is 2 marks)

**25** Vincent got into the swimming pool at 4:45 pm

He was in the swimming pool for half an hour.

What time did he get out of the swimming pool?

:      **pm**

(Total for Question 25 is 1 mark)



**26** Fatima is thinking of a number.

She says:

It is less than  $9 \times 5$

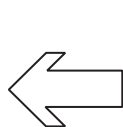
It is more than  $6 \times 7$

It is not double 22

What is Fatima's number?

(Total for Question 26 is 1 mark)

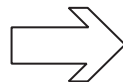
**27** A pattern is made by repeating the four shapes shown below.



Shape 1



Shape 2



Shape 3



Shape 4

The pattern continues in the same way.

What will the 14th shape be?

(Total for Question 27 is 1 mark)

**28** Parveen buys **3 apples**.

She gives the shopkeeper 2 dollars and gets 20 cents change.

What is the cost of **1 apple**?

1 dollar = 100 cents

(Total for Question 28 is 2 marks)



**29** A group of 30 students travel to school.

$\frac{1}{2}$  the students travel by bus

20% of the students walk

the rest of the students cycle.

How **many** students cycle to school?

..... students

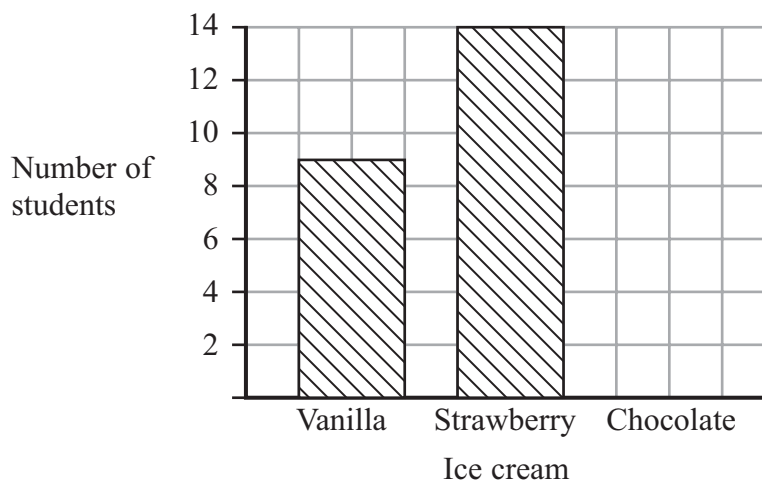
(Total for Question 29 is 2 marks)

**30** 30 students were asked to vote for their favourite ice cream.

The graph shows the results.

The bar showing how many students liked chocolate ice cream is missing.

Complete the graph.



(Total for Question 30 is 1 mark)



31  $3 \times (18 \div \square)$

What is the value of this expression when  $\square = 6$ ?

(Total for Question 31 is 1 mark)

32 How much greater is double 5.9 than 9.9?

(Total for Question 32 is 2 marks)

33 Milly makes a fruit drink using apricots and peaches.

For every apricot she uses 2 peaches.

She uses 15 fruits.

How many peaches does she use?

..... peaches

(Total for Question 33 is 2 marks)

34 A shop sells craft materials.

During a sale they gave away free crayons and paints.

Every 3rd customer received free crayons.

Every 5th customer received free paints.

There were 62 customers during the sale.

How many customers received free crayons **and** free paints?

..... customers

(Total for Question 34 is 2 marks)



35 Write down three **different factors** of 12 that total 12

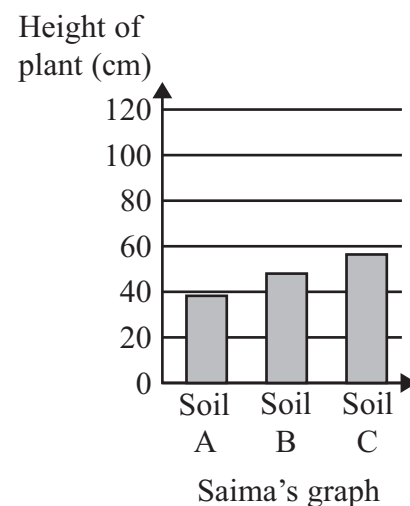
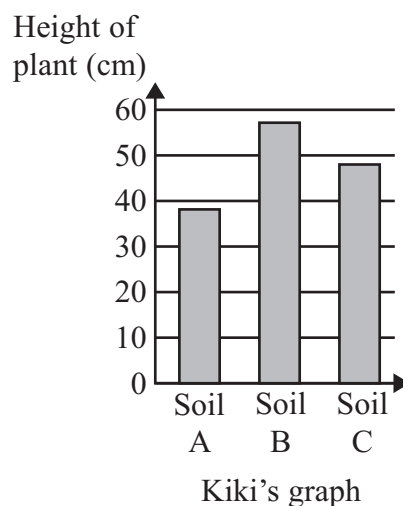
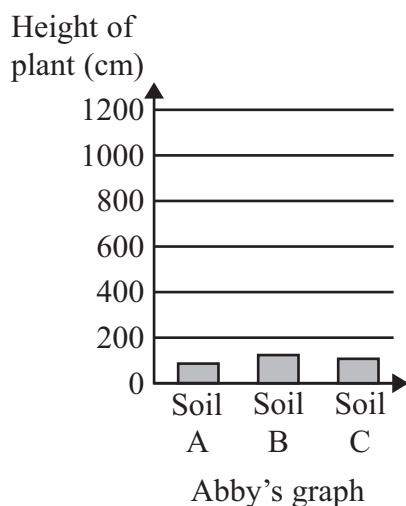
$$\boxed{\phantom{00}} + \boxed{\phantom{00}} + \boxed{\phantom{00}} = 12$$

(Total for Question 35 is 1 mark)

36 Three students measured how high a plant grew in three different soils.

Soil	Height of plant (cm)
A	38
B	57
C	48

They each record their results in a graph.



Which graph best shows the results?

Explain your answer

(Total for Question 36 is 2 marks)



**37** Conrad is 1.3 metres tall.

How many centimetres taller than 1 metre is Conrad?

..... cm

**(Total for Question 37 is 1 mark)**

**38** Anna is thinking of three whole numbers.

She says:

The range is 2

The mode is 3

What are the three numbers?

.....

**(Total for Question 38 is 2 marks)**

**39** Lucas has 10 dollars to buy as many pens as possible.

Each pen costs 45 cents.

What is the greatest number of pens he can buy?

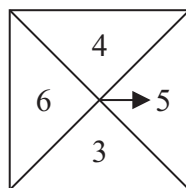
1 dollar = 100 cents

.....

**(Total for Question 39 is 2 marks)**



40 Here is a spinner.



Roz spins the spinner.

(a) What is the chance of Roz spinning a 7?

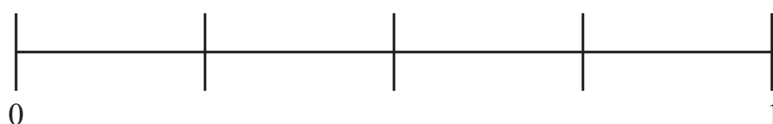
Circle the correct answer.

certain      impossible      even      likely      unlikely

(1)

(b) What is the chance of Roz spinning an odd number?

Mark your answer with an arrow (↓) on the probability scale.



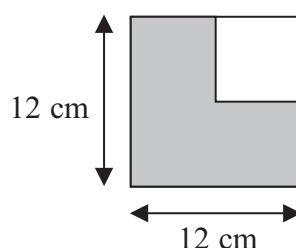
(1)

(Total for Question 40 is 2 marks)

41 Here is a 12 cm square tile with a small square inside it.

Each side of the small square is half the length of the large side.

Diagram **NOT**  
accurately drawn



What is the area of the shaded section?

..... cm<sup>2</sup>

(Total for Question 41 is 2 marks)



42 Here is an isosceles triangle.

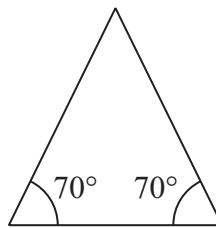


Diagram **NOT**  
accurately drawn

Two of these triangles are placed together to form a kite.

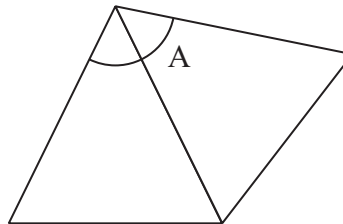


Diagram **NOT**  
accurately drawn

(a) What is the size of angle A?

.....  
(1)

(b) Ludwik has many of these identical triangles.

He places them together around a point until he has a regular polygon.

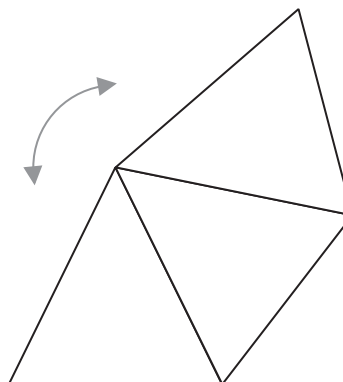


Diagram **NOT**  
accurately drawn

How many triangles does he use?

..... triangles  
(1)

(c) Explain how you know.

.....  
(1)

(Total for Question 42 is 3 marks)

**43** Here are five number cards.

0.1	10	0.2	2	20
-----	----	-----	---	----

Paulo says ‘I know that multiplying makes numbers bigger.’

For example:

$$\boxed{2} \times \boxed{10} = \boxed{20}$$

Use two of the number cards to show that Paulo’s statement is not always true.

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

**(Total for Question 43 is 1 mark)**

**TOTAL FOR SECTION B IS 40 MARKS**

**TOTAL FOR PAPER IS 60 MARKS**

