Write your name here

Surname	Other names

Pearson Edexcel International Primary Curriculum

Centre Number | | | | | |

Candidate Number | | | | |

Mathematics

Year 6
Achievement Test

Thursday 1 June 2017 – Morning
Time: 1 hour

Paper Reference
JMA01/01

You must have:
Ruler graduated in centimetres and millimetres, protractor, compasses, mirror, pen, HB pencil, eraser. Tracing paper may be used.

Total Marks

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 ▶

P48435A

2/1/1/1/1/

P 4 8 4 3 5 A 0 1 2 0

Pearson

SECTION A

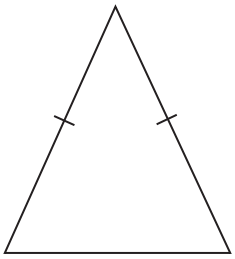
Answer ALL questions.

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 What is $\frac{1}{3}$ of 54?

18	27	36	162
☒	☒	☒	☒

2 What type of triangle is this?



equilateral	scalene	isosceles	right-angled
☒	☒	☒	☒

3 Which of the following numbers has factors 1, 2, 3 and 15?

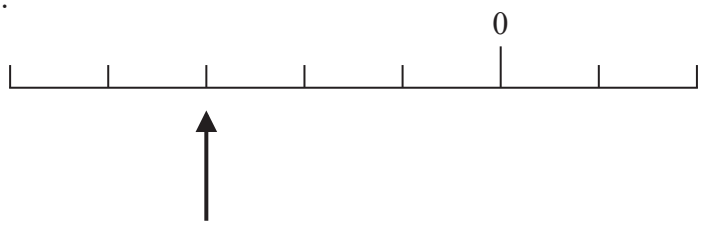
20	30	35	45
☒	☒	☒	☒

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

4 Here is a number line.



What number is the arrow pointing to?

−3	−2	2	3
☒	☒	☒	☒

5 Here is a pictogram.

It shows the number of children in each class with brown eyes.

Class 1	☼ ☼ ☼ ☼ ☼
Class 2	☼ ☼ ☼ ☼
Class 3	☼ ☼ ☼ ◁
Class 4	☼ ☼ ◁
Class 5	☼ ☼ ☼ ☼ ◢
Class 6	☼ ☼ ☼ ☼ ◤

☼ = 4 children

How many children in Class 6 have brown eyes?

4	5	17	19
☒	☒	☒	☒

6 Which of these is a square number?

14	35	81	95
☒	☒	☒	☒

7 There are 6 balls in a bag: 1 black, 2 yellow and 3 green.

Sanja chooses one ball at random.

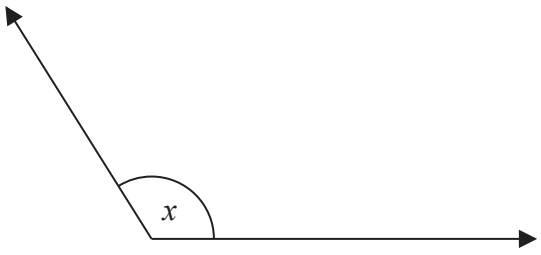
What is the chance of Sanja choosing a black ball?

unlikely	even	likely	certain
☒	☒	☒	☒

8 What is 15% of 80?

4	8	12	68
☒	☒	☒	☒

9 Estimate the size of angle x.



65°	130°	180°	225°
☒	☒	☒	☒

10 Calculate

$$13.36 + 4.6$$

8.76 ☒ 13.82 ☒ 17.96 ☒ 59.36 ☒

---

11 Peter recorded how many books he read each month for a year.

Jan	Feb	Mar	Apr	May	Jun
1	2	4	5	2	3

Jul	Aug	Sept	Oct	Nov	Dec
3	6	2	4	2	5

What is the mode of his data?

2 ☒ 3 ☒ 4 ☒ 5 ☒

---

12 There are 27 children on the school bus.

The ratio of girls to boys is 5 : 4

How many girls are on the bus?

5 ☒ 9 ☒ 12 ☒ 15 ☒

---

13 This shape is made from two rectangles.

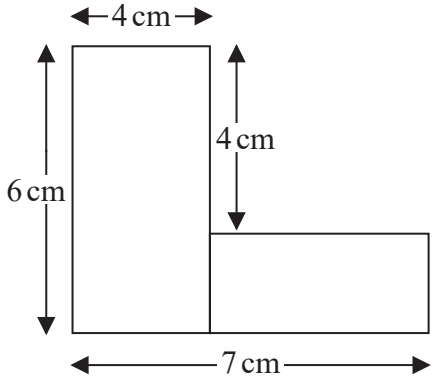


Diagram **NOT** accurately drawn

What is the perimeter of this shape?

21 cm	23 cm	26 cm	30 cm
☒	☒	☒	☒

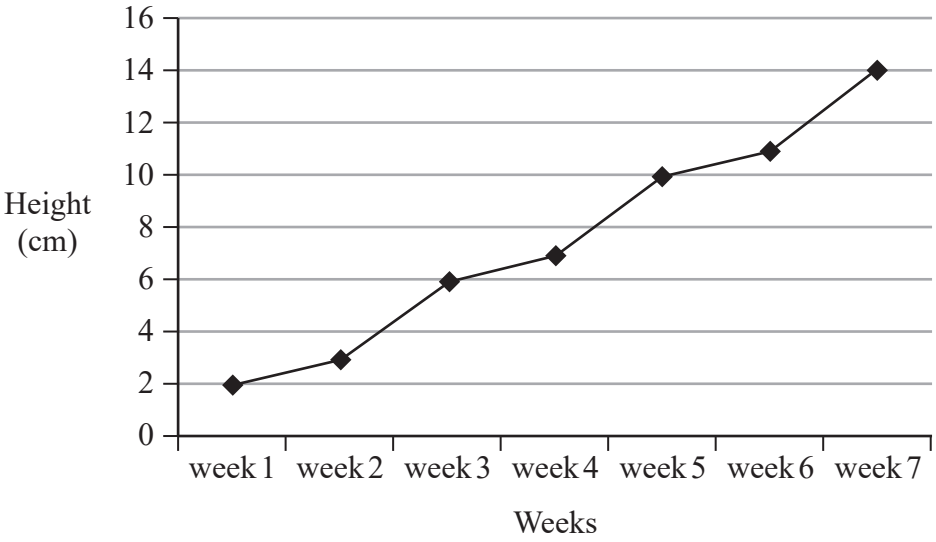
14 Calculate

$$(15 - 8) \times (14 - 8 + 3)$$

16	21	63	93
☒	☒	☒	☒

15 Class 6 grow a plant and record its height at the end of each week.

The graph shows the height of the plant in cm.

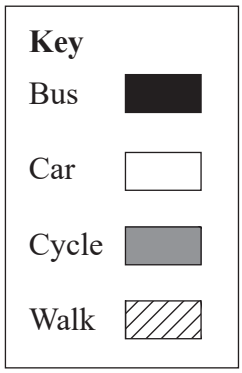


How much does the plant grow from week 2 to week 5?

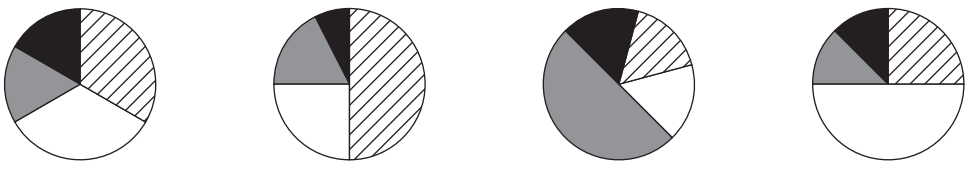
3 cm	7 cm	10 cm	14 cm
☒	☒	☒	☒

16 Jason asks 36 children how they get to school and records his results in a table.

Transport	Frequency
Bus	3
Car	9
Cycle	6
Walk	18

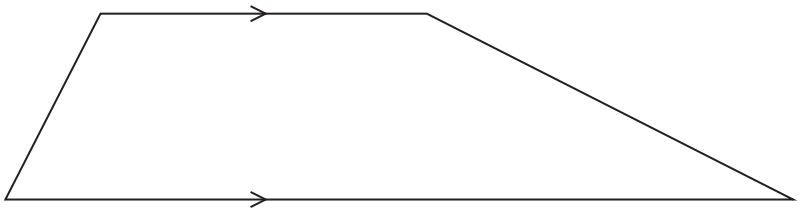


Which pie chart could represent his information?



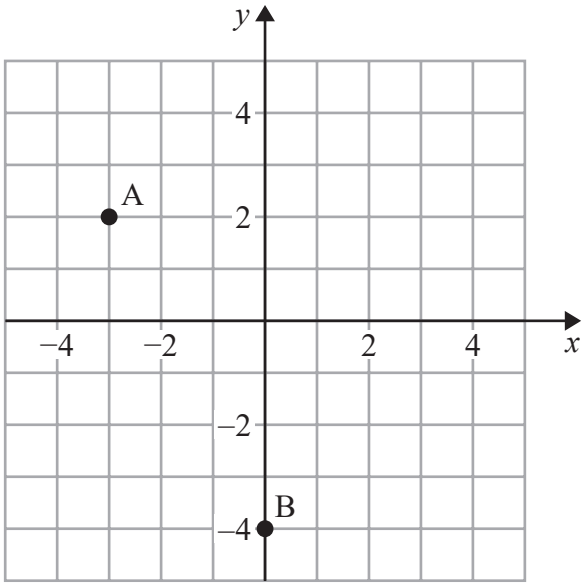
A	B	C	D
☒	☒	☒	☒

17 What is the mathematical name of this shape?



Rhombus	Trapezium	Parallelogram	Kite
☒	☒	☒	☒

18 What are the coordinates of points A and B?

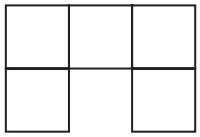


A(2,−3) B(−4,0)	A(−3,2) B(−4,0)	A(2,−3) B(0,−4)	A(−3,2) B(0,−4)
☒	☒	☒	☒

19 What is the Highest Common Factor of 32 and 20?

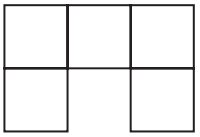
2	4	10	16
☒	☒	☒	☒

20 Faruq has this shape.



He rotates the shape 90° anticlockwise.

What is the position of Faruq's shape now?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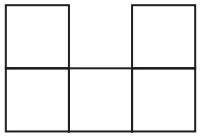
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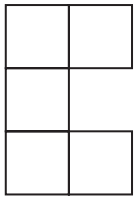
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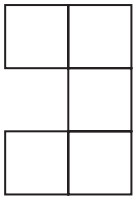

☒

TOTAL FOR SECTION A IS 20 MARKS

SECTION B

Answer ALL questions.

21 Write a number in each box to make the calculations correct.

(a) $24 + \square = 63$

(1)

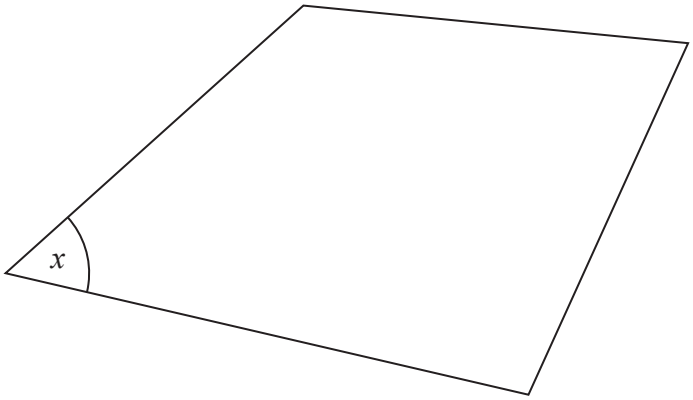
(b) $\square - 37 = 45$

(1)

(Total for Question 21 is 2 marks)

22 Here is a quadrilateral.

Measure the size of angle x



$x =$ .....

(Total for Question 22 is 1 mark)

23 Look at this pattern.

Jenna says,

"For every white box there are 2 grey boxes."

If there were 7 white boxes how many grey boxes would there be?

.....

(1)

(Total for Question 23 is 1 mark)

24 Fill in the boxes to make equivalent fractions.

(i) $\frac{1}{4} = \frac{\square}{20}$

(1)

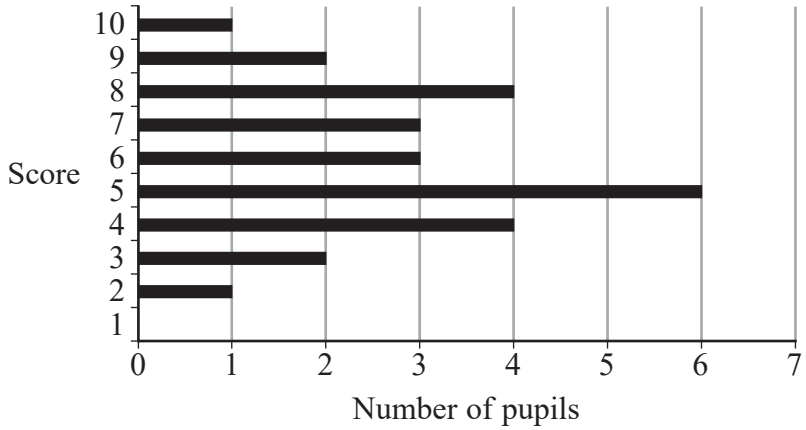
(ii) $\frac{3}{\square} = \frac{24}{40}$

(1)

(Total for Question 24 is 2 marks)

25 Mr Clark's class did a maths test.

He puts the scores on to a bar chart.



(i) What score was the mode?

.....

(1)

(ii) How many pupils obtained the most common score?

.....

(1)

(iii) What is the range of scores on this test?

.....

(1)

(Total for Question 25 is 3 marks)

26 (a) Measure the length of Line A.

Give your answer in millimetres (mm).

Line A _____

Line A = ... mm

(1)

(b) Measure the length of Line B.

Give your answer in centimetres (cm).

Line B _____

Line B = ... cm

(1)

(c) How much longer is Line A than Line B?

.....

(1)

(Total for Question 26 is 3 marks)

27 What decimal number is equal to

5 units + 3 hundredths

.....

(Total for Question 27 is 1 mark)

28 (a) Write this mixed number as an improper fraction.

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

(1)

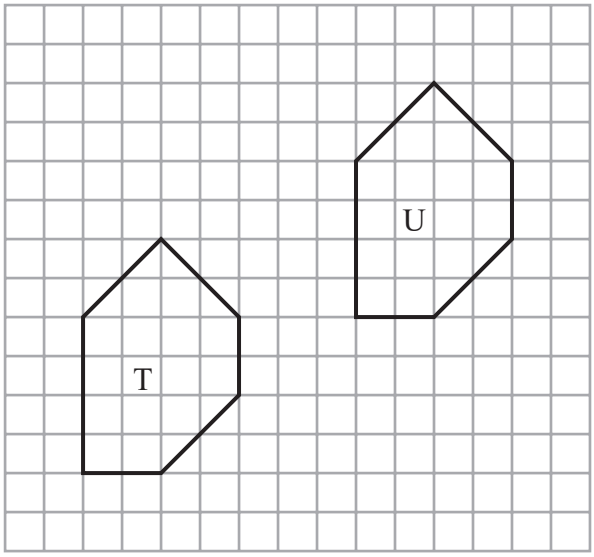
(b) Write this improper fraction as a mixed number.

$$\frac{25}{11} = \square\,\frac{\square}{\square}$$

(1)

(Total for Question 28 is 2 marks)

29 Here are two identical hexagons.



Describe the translation of Hexagon T to Hexagon U.

.....

.....

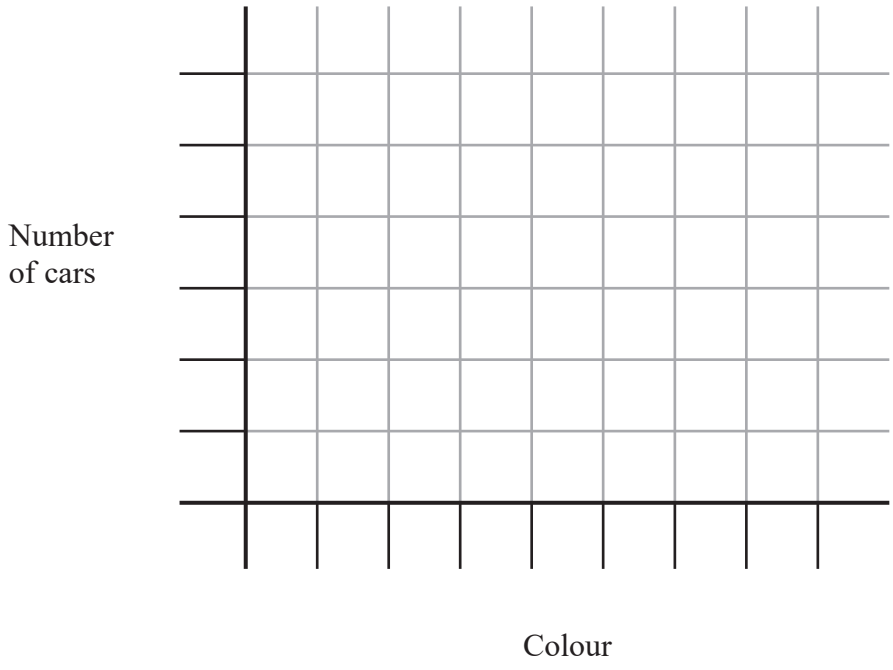
(Total for Question 29 is 2 marks)

30 Ahmed recorded the colour of the first 40 cars that went past him.

He put his information into a table.

Colour	Number of cars
Black	12
Blue	9
Red	10
Silver	5

Use the table to complete a bar chart for Ahmed's information.



(Total for Question 30 is 2 marks)

31 By rounding each number to the nearest 10, work out an approximate answer to the following.

You must show your working.

$$83.2 \div 17.83 =$$

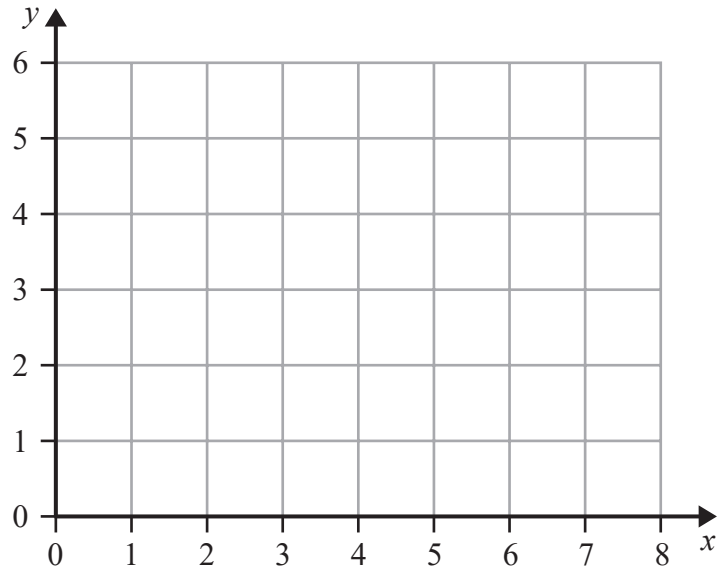
.....

(Total for Question 31 is 2 marks)

32 A pentagon has vertices at

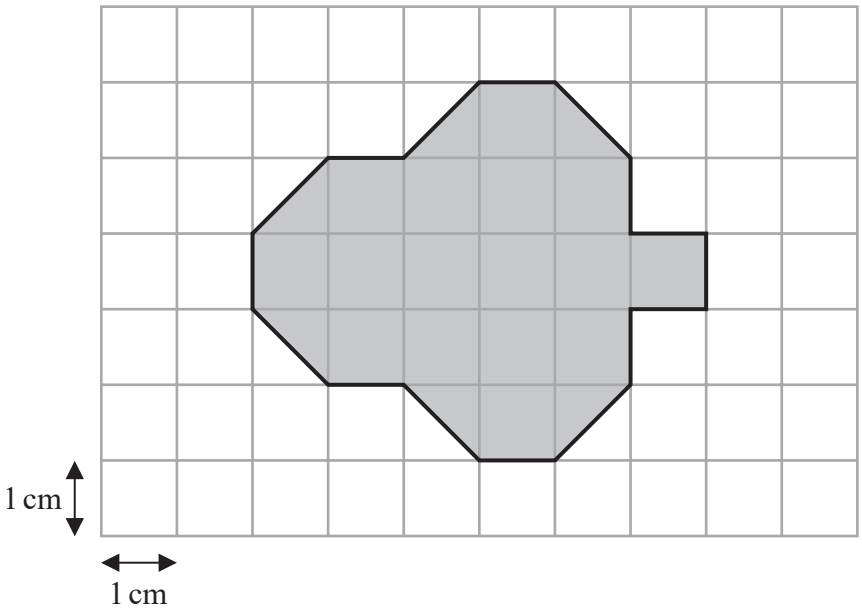
(2,2) (3,4) (5,5) (6,3) (4,1)

Use this information to draw the shape on the grid.



(Total for Question 32 is 2 marks)

33 What is the area of the shaded shape?

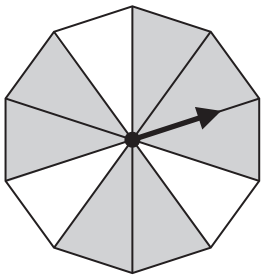


.....

(Total for Question 33 is 2 marks)

34 A spinner has 10 equal sections.

7 sections are shaded.



(i) Anya spins the spinner.

What is the chance of the spinner landing on a shaded section?

.....

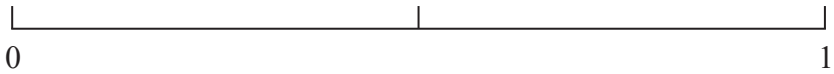
(1)

(ii) What is the probability of the spinner landing on an unshaded section?

.....

(1)

(iii) Place an arrow on this line to show the probability of the spinner landing on an unshaded section.



(1)

(Total for Question 34 is 3 marks)

35 (i) Mr Patel's classroom has 7 tables in it.

4 children work at each table.

How many children are in Mr Patel's class?

.....

(1)

(ii) There are 376 children in the school.

At lunchtime they sit in groups of 8

How many groups of children are there?

.....

(1)

(Total for Question 35 is 2 marks)

36 Write these numbers in order, starting with the smallest.

0.57 0.577 0.507 0.5

smallest largest

(Total for Question 36 is 1 mark)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

37 Fatima buys three tubs of apples.

Tub A	Tub B	Tub C
		
1005 g	1.2 kg	_____

Fatima bought 2500 g of apples altogether.

What is the mass of Tub C?

Give your answer in kg.

..... kg

(Total for Question 37 is 2 marks)

38 Calculate

$$827 \times 56$$

You must show your working.

.....

(Total for Question 38 is 2 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

39 The probability of picking a white marble is $\frac{2}{7}$

What is the probability of picking a marble that is not white?

.....

(Total for Question 39 is 1 mark)

40 Solve

$$4x - 7 = 20$$

$x =$ .....

(Total for Question 40 is 1 mark)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

41 Sadiq did five spelling tests.

His marks were

3 7 8 5 6

What was his mean score?

.....

(Total for Question 41 is 1 mark)

42 Simplify this expression

$$3(a + 2b) + 4(2a - b)$$

.....

(Total for Question 42 is 2 marks)

TOTAL FOR SECTION B IS 40 MARKS
TOTAL FOR PAPER IS 60 MARKS