Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number | Candidate Number

Pearson Edexcel International Award in Primary

Time 1 hour

Paper reference **JMA11/01**

Mathematics

Year 6
Achievement Test

You must have:
Ruler graduated in centimetres and millimetres, pen, HB pencil, eraser, protractor, compasses. 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.*

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.*
- Candidates may **NOT** use a calculator.

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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P 6 7 6 2 9 A 0 1 2 4

Pearson

SECTION A

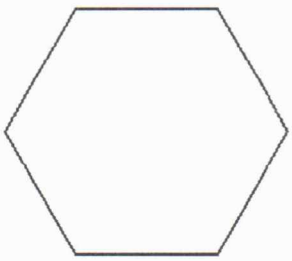
Answer ALL questions. Write your answers in the spaces provided.

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 ☒.

1 What is the name of this shape?

Polygon with ÷
5 sides – Pentagon.
6 sides – Hexagon
7 sides – Heptagon
8 sides – Octagon

Quadrilateral – 4 sides.



Hexagon	Octagon	Quadrilateral	Pentagon
☒	☐	☐	☐

(Total for Question 1 is 1 mark)

2 Which word best describes this set of numbers?

7 13 25 39 43

Odd	Even	Square	Prime
☒	☐	☐	☐

(Total for Question 2 is 1 mark)

An even number – is a whole number that is able to be divided by two into two equal whole numbers.
0, 2, 4, 6, 8.

Square number – It is a product of a number multiplied by itself.
$1^2 = 1 \times 1 = 1$
$2^2 = 2 \times 2 = 4$

Prime numbers – Are numbers divisible by one and itself. eg. 2, 3, 5, 7, 11, 13, 17, 19, 23, 29.

DO NOT WRITE IN THIS AREA DO NOT WRITE IN THIS AREA DO NOT WRITE IN THIS AREA

3 What is the range of these weights?

Range = Highest Mass − Lowest Mass
= 12kg − 2kg = 10kg

7kg 6kg 2kg 12kg 7kg 5kg

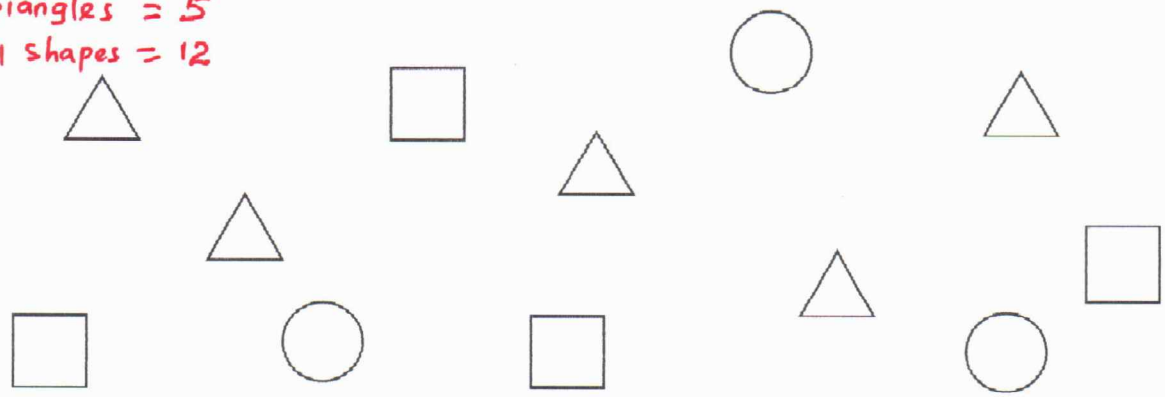
2kg	7kg	10kg	12kg
☐	☐	☒	☐

(Total for Question 3 is 1 mark)

4 What fraction of these shapes are triangles?

Fraction of Triangles = $\frac{5}{12}$

Triangles = 5
Total shapes = 12



$\frac{1}{3}$	$\frac{5}{12}$	$\frac{7}{12}$	$\frac{5}{7}$
☐	☒	☐	☐

(Total for Question 4 is 1 mark)

5 What is the value of the 8 in this number?

7824
8×100 = 800

8	80	800	8000
☐	☐	☒	☐

(Total for Question 5 is 1 mark)

6 Work out

$12 - 6 \div 3$

Brackets
Of
Division
Multiplication
Addition
Subtraction

$12 - 6 \div 3$

$6 \div 3 = 2$

$12 - 2 = 10$

2	9	10	14
☐	☐	☒	☐

(Total for Question 6 is 1 mark)

7 Work out

30% of 120

$\frac{30}{100} \times 120 = 36$

12	25	36	40
☐	☐	☒	☐

(Total for Question 7 is 1 mark)

8 What is 68 481 rounded to the nearest thousand?

if thousand consider the hundred digit.

$68,481 \rightarrow 68,000$

60 000	68 000	69 000	70 000
☐	☒	☐	☐

(Total for Question 8 is 1 mark)

9 Here is a sorting table.

16 → Even number but no multiple of 3.

$3 \times 1 = 3$
$3 \times 2 = 6$
$3 \times 3 = 9$
$3 \times 4 = 12$
$3 \times 5 = 15$
$3 \times 6 = 18$

	Odd	Even
Multiple of 3	A	B
Not a multiple of 3	C	D

Which cell would 16 be in?

A	B	C	D
☐	☒	☐	☐

(Total for Question 9 is 1 mark)

10 What is the area of this triangle?

Area $= \frac{1}{2} \times$ base $\times$ height

$= \frac{1}{2} \times 8 \times 3 = \frac{24}{2}$

$= 12\ cm^2$

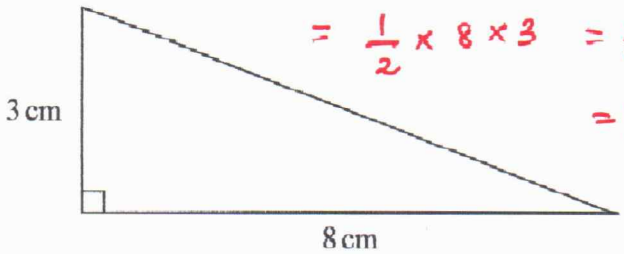


Diagram **NOT** accurately drawn

11 cm²	12 cm²	22 cm²	24 cm²
☐	☒	☐	☐

(Total for Question 10 is 1 mark)

11 The rule for this number sequence is

add 2 to the number then double

☐	10	24	52	108

What is the missing number in this sequence?

Let the number box = x

$2(x+2) = 10$

$2x + 4 = 10$

$2x = 10 - 4$

$\frac{2x}{2} = \frac{6}{2}$

$x = 3$

3	4	6	22
☒	☐	☐	☐

(Total for Question 11 is 1 mark)

12 In a shop a pen costs \$1.39 and a pencil costs \$0.45

How much would it cost to buy one pen and two pencils?

One Pen costs 1·39

Two Pencils Cost = 0·45×2
= 0·9

Total cost = 1·39 + 0·9
= 2·29

+ 1·39
0·90
2·29

\$1.84	\$2.29	\$3.23	\$3.68
☐	☒	☐	☐

(Total for Question 12 is 1 mark)

13 Which of these numbers is a multiple of both 3 and 8?

3×7=21
3×8=24
3×9=27
3×10=30
3×11=33
3×12=36
3×16=48

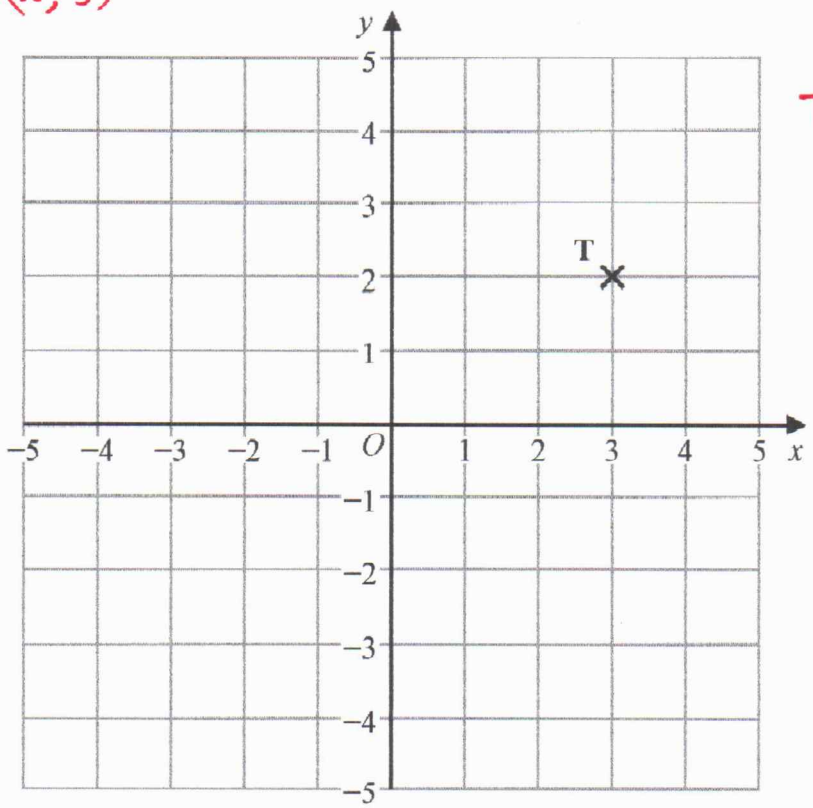
3×1=3
3×2=6
3×4=12
3×5=15
3×6=18

8×2=16
8×4=32
8×5=40
8×6=48

11	12	32	48
☐	☐	☐	☒

(Total for Question 13 is 1 mark)

14 Coordinates of any point are given in terms of (x, y)



T = (x, y) = (3, 2)

Which one of these best describe point T?

$x = 3$	(2 , 3)	$y = 2$	(3 , 2)
☐	☐	☐	☒

(Total for Question 14 is 1 mark)

15 On Monday afternoon Sanjay looked at the time on his classroom clock.

Here is what he saw.

Time = 1:15 pm

To Convert to 24-hour digital clock add 12

1:15
12:00
13:15

How would the time on this clock be shown on a 24-hour digital clock?

01:15	03:05	13:15	15:05
☐	☐	☒	☐

(Total for Question 15 is 1 mark)

16 Simplify this expression.

$3f + 2e - 2f + e$

Collect the like terms together.

3f + 2e − 2f + e

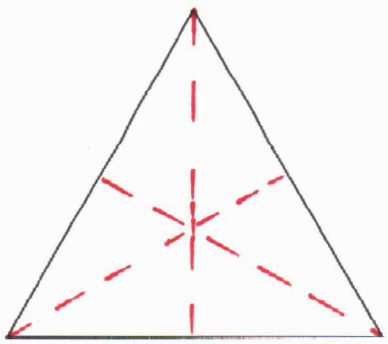
3f − 2f + 2e + e

f + 3e

$f + e$	$3fe$	$f + 3e$	$5f + 3e$
☐	☐	☒	☐

(Total for Question 16 is 1 mark)

17 Here is an equilateral triangle.



How many lines of symmetry does it have?

1	3	180	360
☐	☒	☐	☐

(Total for Question 17 is 1 mark)

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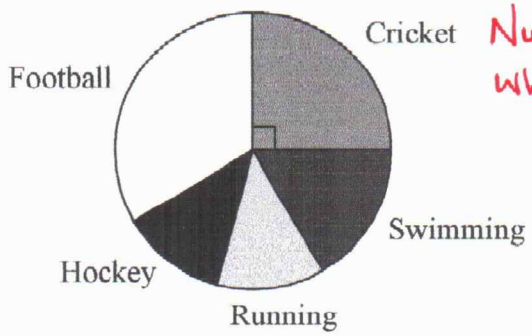
18 120 children each choose a favourite sport.

The results are shown in the pie chart below.

90° → Cricket

The angle sum in a pie chart is 360°.



Number of children who chose cricket =

$\frac{90^{10}}{360_{4}} \times 120^{3} = 30$

How many children chose cricket?

24	30	60	90
☐	☒	☐	☐

(Total for Question 18 is 1 mark)

19 Work out

$$\frac{9}{14} - \frac{4}{7}$$

$\frac{9-8}{14} = \frac{1}{14}$

L.C.M 2 | 14, 7
7 | 7, 7
1, 1

LCM = 2 × 7 = 14

$\frac{1}{14}$	$\frac{5}{14}$	$\frac{5}{7}$	$\frac{13}{14}$
☒	☐	☐	☐

(Total for Question 19 is 1 mark)

20 Work out

45% of 160

$\frac{9}{45} \times \frac{8}{160} = 72$

16	24	64	72
☐	☐	☐	☒

(Total for Question 20 is 1 mark)

TOTAL FOR SECTION A IS 20 MARKS

SECTION B

Answer ALL questions.

21 Work out

(a) 247 + 328

$$\begin{array}{r} {\scriptstyle 1} \\ 247 \\ +\,328 \\ \hline 575 \end{array}$$

575

(1)

(b) 23471 − 1280

$$\begin{array}{r} 23471 \\ -\,1280 \\ \hline 22,191 \end{array}$$

22,191

(1)

(Total for Question 21 is 2 marks)

22 Join the equivalent fractions, decimals and percentages.

One has been done for you.

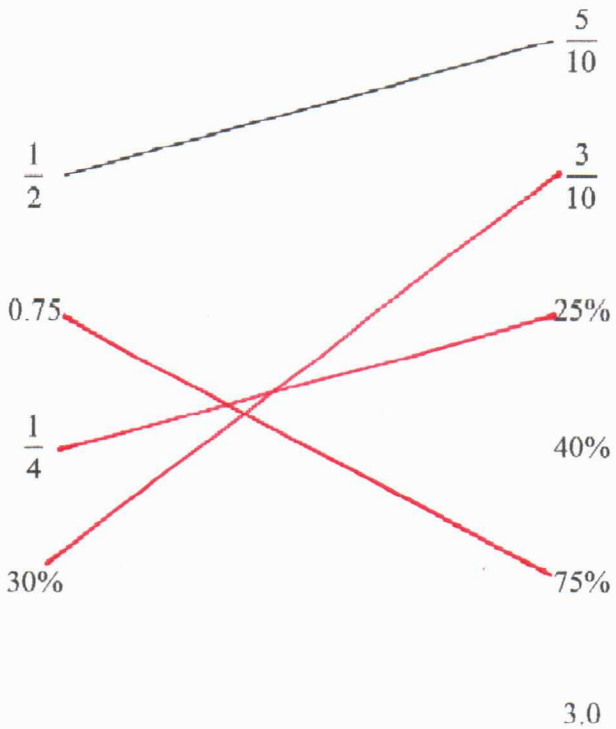
$\frac{1}{4} \times 100 = \frac{100}{4}$

$= 25\%$

$30\% = \frac{30}{100}$

$= \frac{3}{10}$

$\frac{75}{100} = 0.75$



3.0

(Total for Question 22 is 2 marks)

23 This tally chart shows the favourite colours of the students in Jai's class.

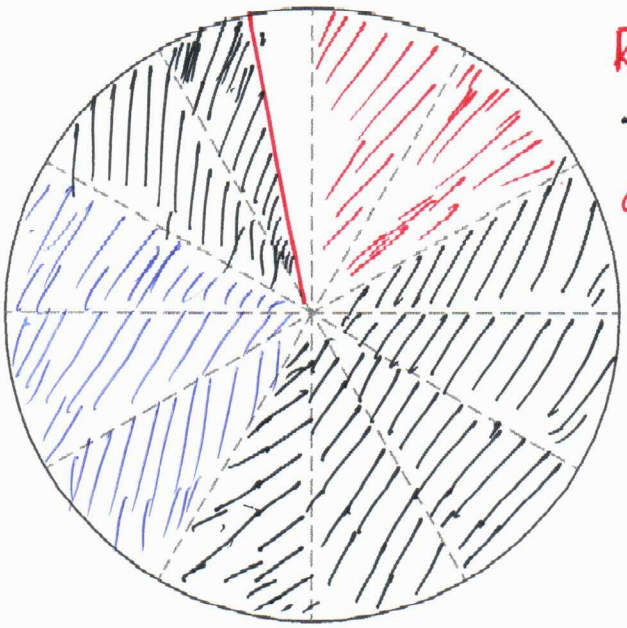
Colour	Tally	Total
Red	𝍸	4
Yellow	𝍸 𝍸	10
Green		3
Blue		6
Purple	|	1

(a) Complete the tally chart.

(2)

(b) Use the information from the tally chart to complete this pie chart.

Favourite colours



(3)

(Total for Question 23 is 5 marks)

24 Lenny has \$180

He shares it with his brother in the ratio 2 : 1

Lenny gets the most money.

How much money does Lenny get?

Total ratio = 2 + 1
= 3

$$3\overline{)360} = 120$$

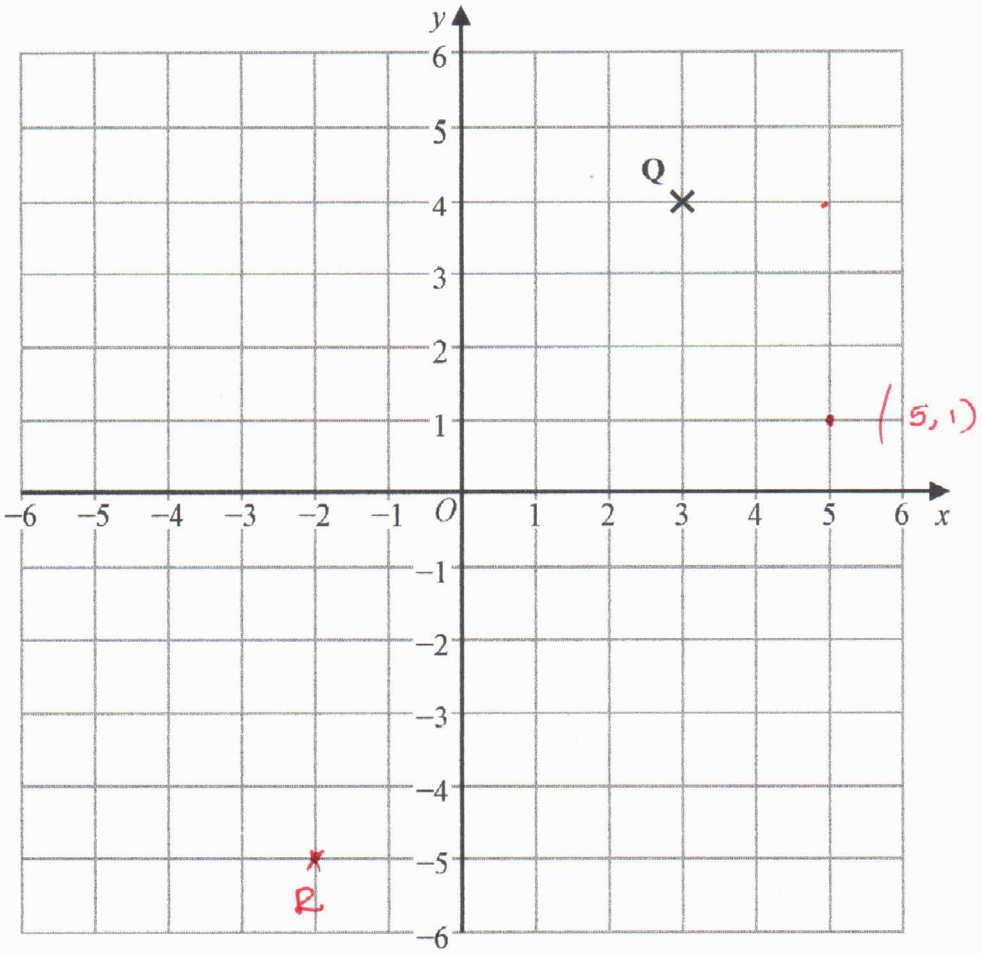
$$\text{Lenny} = \frac{2}{3} \times 180 = \frac{360}{3} = 120$$

$$\text{Lenny's brother} = \frac{1}{3} \times 180 = \frac{180}{3} = 60$$

\$ 120

(Total for Question 24 is 2 marks)

25 Point Q has been plotted on this grid.



(a) Translate point Q by 2 squares right and 3 squares down.

What are its new coordinates?

(5 , 1)

(1)

(b) On the grid, plot point R with the coordinates (−2, −5).

To plot begin with x then y co-ordinate.

(1)

(Total for Question 25 is 2 marks)

26 Here is a triangle inside a rectangle.

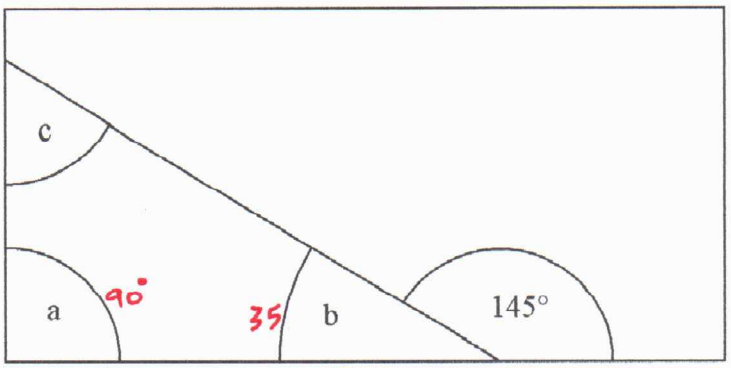


Diagram **NOT** accurately drawn

$90 + 35 + c = 180$
$125 + c = 180$
$c = 180 - 125$
$c = 55°$

Work out the size of each of the labelled angles.

Angles in a straight line add up to 180°.
$b + 145 = 180$
$b = 180 - 145$
$b = 35$

angle a = 90° since all angles in a rectangle is 90°

angles in a triangle add up to 180°
$90 + 35 + c = 180°$

a = 90 °
(1)

b = 35 °
(1)

c = 55 °
(1)

(Total for Question 26 is 3 marks)

27 Calculate

$$2301 \times 27$$

You must show your working.

$$\begin{array}{r} 2301 \\ \times\ 27 \\ \hline 16107 \\ +\ 46020 \\ \hline 62127 \end{array}$$

62127

(Total for Question 27 is 2 marks)

28 (a) Expand

$5(3x + y)$

$5(3x+y)$

$5x3x + 5xy$

$15x + 5y$

$15x + 5y$

(1)

(b) Solve the equation

$4x + 6 = 22$

$4x + 6 = 22$

$4x = 22 - 6$

$\frac{4x}{4} = \frac{16}{4}$

$x = 4$

$x =$ 4

(1)

(c) Find the value of the expression

$3a - 4b + c$

when $a = 5$, $b = 3$ and $c = 7$

Substitute values given

$3a - 4b + c$

$3(5) - 4(3) + 7$

$15 - 12 + 7$

$(15 + 7) - 12$

$= 22 - 12$

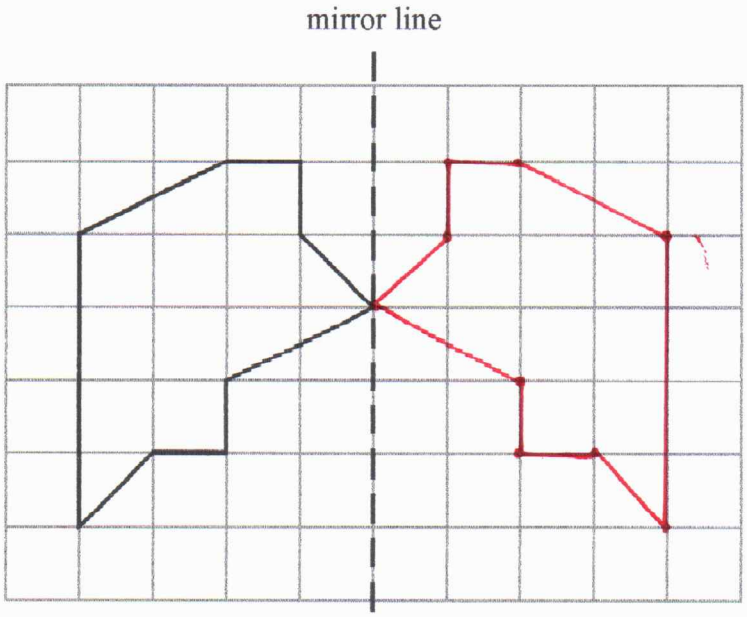
$= 10$

10

(2)

(Total for Question 28 is 4 marks)

29 (a) Reflect the shape on the grid in the mirror line.



(1)

(b) What is the volume of this cuboid?

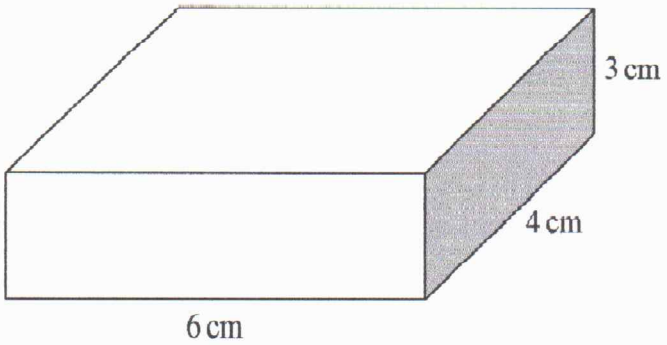


Diagram **NOT** accurately drawn

Volume = L x W x h
= 6 x 4 x 3
= 72 cm³

72 cm³

(2)

(Total for Question 29 is 3 marks)

30 Write these numbers in order of size.

Start with the smallest.

4.04 0.4 0.04 0.44

0.04 0.4 0.44 4.04

smallest

(Total for Question 30 is 1 mark)

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

$\frac{14}{3}$

$\frac{14}{3} = 3\overline{)14}$ 4 remainder 2

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

$4\frac{2}{3}$

(1)

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

$2\frac{5}{8}$

$2\frac{5}{8} = \frac{(2 \times 8) + 5}{8}$

$= \frac{16 + 5}{8}$

$= \frac{21}{8}$ $= \frac{21}{8}$

$\frac{21}{8}$

(1)

(Total for Question 31 is 2 marks)

32 Saira's English group did a spelling test.

Here are their results.

Median is the Middle value of data arranged inorder.

13 9 10 13 12 7 13

(a) What is the median of these results?

Arrange the data in order from smalles to Largest.

7 9 10 (12) 13, 13, 13

Median = 12

12

(1)

(b) What is the mean of these results?

Mean = $\frac{\text{Total data}}{\text{Number of results.}}$

$= \frac{13+9+10+13+12+7+13}{7}$

$= \frac{77}{7} = 11$

$7\overline{)77}$ = 11, 7, 07, -07, 00

11

(1)

(Total for Question 32 is 2 marks)

33 Calculate

$3168 \div 18$

You must show your working.

$18\overline{)3168}$ = 176

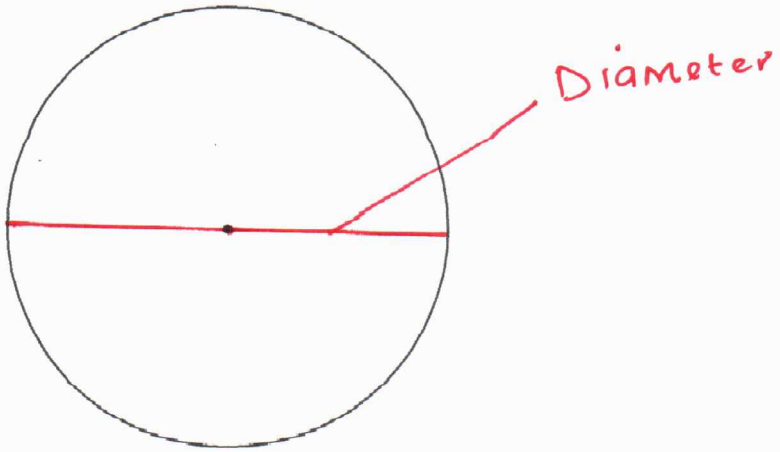
18, 136, 126, -108, -108, 000

$= 176$

176

(Total for Question 33 is 2 marks)

34 Here is a circle with the centre marked.



(a) Draw and label the diameter on the circle.

(1)

(b) How long is the radius of this circle?

2.9 cm

(1)

(Total for Question 34 is 2 marks)

35 Melinda is 168.4 cm tall.

Her sister is 0.4 m shorter than she is.

Their brother is 75% of Melinda's height.

Melinda sister = 0.4m

1M = 100 cm

0.4 = ?. $0.4 \times 100 = 40$ cm

(a) How tall is Melinda's sister?

$168.40 - 40.00 = 128.40$

128.40 cm

(1)

(b) How tall is Melinda's brother?

$\frac{75}{100} \times 168.4 =$

$\frac{3}{4} \times 168.4 = \frac{5052}{4}$

$4 \overline{)5052}$ = 1263

4, 10, 8, 25, 24, 12

$= \frac{126.3}{10} = 126.3$

126.3 cm

(2)

(Total for Question 35 is 3 marks)

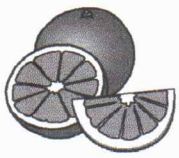
$1684 \times 3 = 5052$

36 Sadio needs to buy

1 Pineapple
6 Strawberries
3 Oranges

Pineapple
$3.25 each

Strawberries
$0.45 each



Oranges
$1.69 each

He has $11

Does he have enough money to buy the fruit?
You must show your working.

1 Pineapple = 3.25

6 strawberries = (0.45 × 6) = 2.70

$$\begin{array}{r} 45 \\ \times\ 6 \\ \hline 2.70 \end{array} = 2.70$$

3 Oranges = 1.69 × 3 = 5.07

$$\begin{array}{r} 169 \\ \times\ 3 \\ \hline 5.07 \end{array} = 5.07$$

Total cost = 3.25 + 2.70 + 5.07 = 11.02

No, she does not have enough Money. She is $0.02 Less than the total cost of fruits.

(Total for Question 36 is 3 marks)

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