Please check the examination details below before entering your candidate information

Candidate surname | Other names

Centre Number | Candidate Number

Pearson Edexcel International GCSE

Time: 2 hours

Paper reference **4MA1/1F**

Mathematics A
PAPER 1F
Foundation Tier

Grade 2
UEB Braille

You must have: Calculator, tactile ruler and protractor, compasses and drawing equipment e.g. geometry board, rubber mat, mapping pins, rubber bands, drawing stylus and spur wheel.

Total Marks

YOU WILL BE GIVEN
- **Separate Diagram Booklet.**
- **Separate Formulae Sheet.**
- **Cut out shape for Question 14 (a)**
- **Bumpons for Question 5 (a) (i) and Question 11.**
- **Wikki Stix for Question 11.**

Instructions
- **On your paper, write** your name, centre number and candidate number.
- Answer **all** questions.
- Without sufficient working, correct answers may be awarded no marks.
- Answer the questions **on your paper.**
- **Calculators may be used.**
- You must **NOT** write anything on the formulae **sheet**.
  Anything you write on the formulae **sheet** will gain NO credit.

Information
- The total mark for this paper is 100.
- 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.
- Check your answers if you have time at the end.

Turn over ▶

U 7 2 4 3 5 A 0 1 2 8

Pearson

**Formulae sheet – Foundation Tier**   **Provided separately**

Area of trapezium = $\frac{1}{2}(a + b)h$
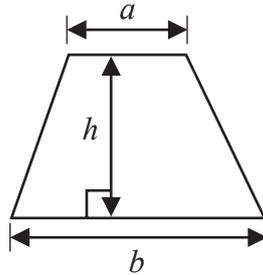
Volume of prism = area of cross section × length
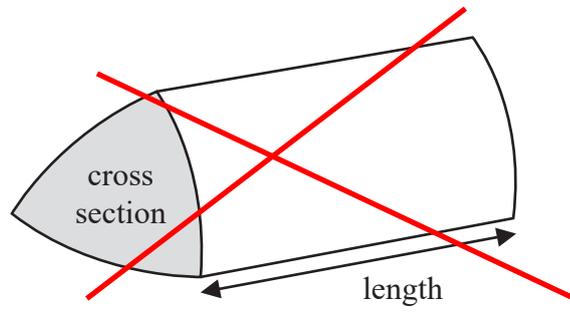
Volume of cylinder = $\pi r^2 h$

Curved surface area of cylinder = $2\pi rh$
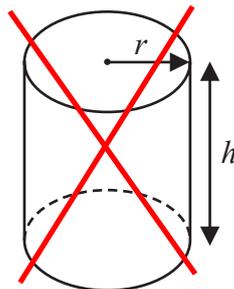
1. The table **below** gives information about six plays written by William Shakespeare.

Play	Number of words	Year written
The Taming of the Shrew	21,055	1592
Henry V	26,119	1599
Hamlet	30,557	1602
Macbeth	17,121	1606
Julius Caesar	19,703	1599
King John	20,772	1596

(a) Which of these six plays has the greatest number of words?

Ans: ....

(1)

(b) Two of these six plays were written in the same year.

Write down the name of each of these plays.

Ans: .... and ....

(1)

(c) The play Othello has 9329 more words in it than the play Macbeth.

Work out the number of words in the play Othello.

Ans: ....

(1)

(d) Write the number 21,055 in words.

Ans: ....

(1)

(Total for Question 1 is 4 marks)

U 7 2 4 3 5 A 0 3 2 8

2. Luca has 5 kg of chopped tomatoes.
He also has some empty tins.

When full, each tin holds 350 g of chopped tomatoes.

Luca fills as many tins as possible with the chopped tomatoes.

Work out the weight of the chopped tomatoes remaining after Luca has filled as many tins as possible.
Give the units of your answer.

Ans: ....

**(Total for Question 2 is 4 marks)**

U72435A0428

3. **Look at Diagram 1 for Question 3 in the separate Diagram Booklet.**
   The diagram shows a sequence of patterns made from squares.

| Pattern number 1 | Pattern number 2 | Pattern number 3 |
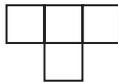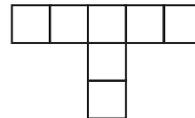
(a) **On Diagram 2 for Question 3 in the separate Diagram Booklet, complete** Pattern number 4

Pattern number 4 (incomplete)
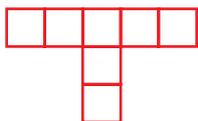
Drawing film is provided for this question.

(1)

(b) Complete the table **below**.

Table turned vertical in braille

Pattern number	1	2	3	4	5
Number of squares	1	4	7	**(i)**	**(ii)**

Ans: (i) ___ (ii) ___

(1)

(c) Work out the number of squares in Pattern number 8

Ans: ....

(1)

(d) Angus says,

"there are 42 squares in Pattern number 15"

Angus is incorrect.

Explain why.

Ans: ....

....

....

(1)

(Total for Question 3 is 4 marks)

U 7 2 4 3 5 A 0 5 2 8

4. (a) Write 0.8 as a percentage.

Ans: .... %

(1)

(b) Write down the value of the 3 in the number 4.7634

Ans: ....

(1)

(c) Write **the five** decimals **below** in order of size.
Start with the smallest decimal.

0.204   0.24   0.04   0.2   0.042

Ans: ....

(1)

(d) Write 25.786 21 correct to 2 decimal places.

Ans: ....

(1)

(e) Find the square root of 1296

Ans: ....

(1)

(Total for Question 4 is 5 marks)

5. Adam has **eight** packets of noodles.
The flavour of noodles in each packet **is given below.**

| Hot and Spicy | Curry | Vegetarian | Hot and Spicy |
| Curry | Hot and Spicy | Curry | Hot and Spicy |
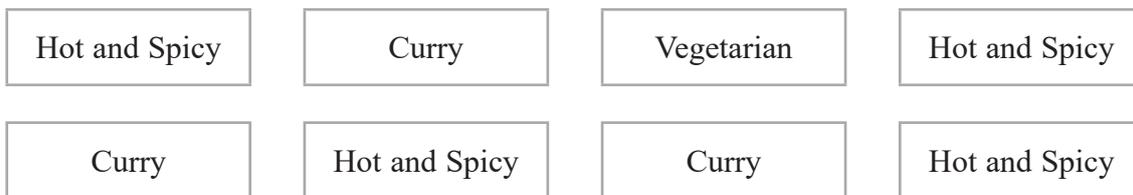
List vertically with no boxes in Braille

**(a) (i)   Look at the diagram for Question 5 (a) (i) in the separate Diagram Booklet.
The diagram is a probability scale.**
Adam takes at random a packet of noodles.

On the probability scale, mark with a **bumpon** the probability that Adam takes a packet of Hot and Spicy noodles.
A spare tactile diagram and bumpons are provided for this question.

0   0.5   1
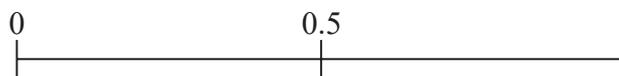
(1)

(ii) **From the list of five words below, choose** the word that best describes the likelihood that Adam takes a packet of Vegetarian noodles.

| impossible | unlikely | even | likely | certain |

List vertically with no boxes in Braille
Ans: ___

(1)

(b) Belinda asks 20 people to name the type of rice that they each like the best.

Her results are shown below.

arborio	jasmine	basmati	jasmine	basmati
basmati	arborio	wild	jasmine	jasmine
jasmine	jasmine	arborio	basmati	basmati
wild	basmati	jasmine	wild	arborio

Complete the frequency table **below** for Belinda's results.
A free-standing blank is available for this question.

Type of rice	Tally	Frequency
arborio		
basmati		
jasmine		
wild		

(2)

(Total for Question 5 is 4 marks)

Turn over ▶

6. Sandeep sells 600 tickets for an event.
He receives a total of $7200 from selling the tickets.

$\frac{1}{4}$ of the tickets sold are child tickets.

The rest of the tickets sold are adult tickets.

The cost of an adult ticket is $13.60

Work out the cost of a child ticket.

Ans: $ ....

(Total for Question 6 is 4 marks)

7. (a) Simplify $5p \times 9k$

Ans: ....

(1)

(b) Simplify $3m + 2n + 8m - 7n$

Ans: ....

(2)

(c) Solve $2r + 7 = 16$

Ans: r = ...

(2)

(Total for Question 7 is 5 marks)

8. **Look at the diagram for Question 8 in the separate Diagram Booklet.**
   The diagram shows a scale drawing showing the positions of Paris and Bordeaux **in France**.
   In the diagram, 1 cm represents 40 km.

Scale: 1 cm represents **40** km
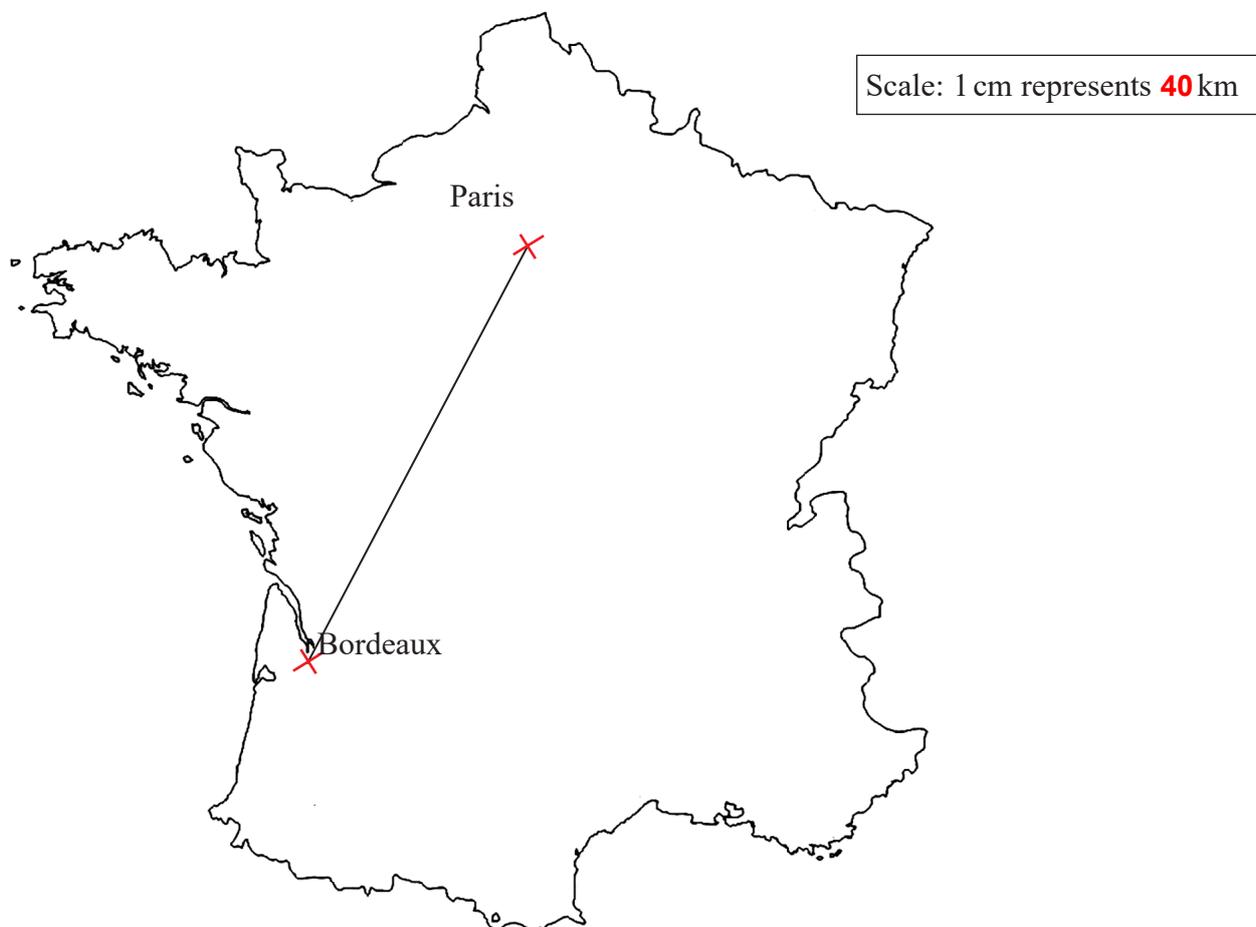
Alain drives from Paris to Bordeaux.
The distance that he drives is 590 km.

This distance is greater than the actual straight line distance between
Paris and Bordeaux.

How much greater?
Show your working clearly.

Ans: .... km

(Total for Question 8 is 4 marks)

9. Avner has two fair spinners.
Look at the diagram for Question 9 in the separate Diagram Booklet.
The diagram shows Avner's two fair spinners.

Spinner A
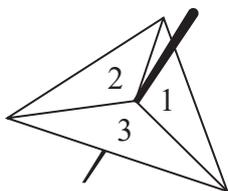
Spinner B
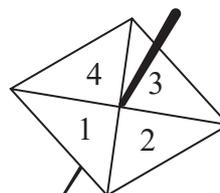
Spinner **A** can land on 1, 2 or 3
Spinner **B** can land on 1, 2, 3 or 4

(a) Avner **multiplies** the number on which spinner **A** lands by the number on which spinner **B** lands to find his score.

Complete the table **below** to show all possible scores.
Seven of the scores have been completed for you.

		Spinner A		
		1	**2**	**3**
Spinner B	**1**	1	2	3
	2	2	4	**(i)**
	3	3	**(ii)**	**(iii)**
	4	4	**(iv)**	**(v)**

Ans: (i) ___ (ii) ___ (iii) ___ (iv) ___ (v) ___

(2)

(b) Avner spins spinner **A** once and spinner **B** once.

Find the probability that his score is an odd number.

Ans: ....

(1)

(Total for Question 9 is 3 marks)

10. Orange squash is made from orange juice and water.

Sean has two different cartons of orange squash, carton **P** and carton **Q**.
Information about the two cartons **is given below**.

Carton P	Carton Q
Total volume of orange squash is 250 millilitres	Total volume of orange squash is 250 millilitres
30% of the total volume is **orange juice**	160 millilitres of the total volume is **water**
and	and
the remainder is water	the remainder is orange juice

Work out the difference in the volume of orange juice in carton **P** and the volume of orange juice in carton **Q**.

Ans: .... millilitres

(Total for Question 10 is 3 marks)

11. **Look at the diagram for Question 11 in the separate Diagram Booklet.**
   **The diagram is a coordinate grid.**
   On the grid, draw the graph of $y = 1 - 2x$ for values of x from –2 to 3
   You may use the blank table below to help you if you wish.
   A spare tactile diagram, bumpons and Wikki Stix are provided for this question.

y = 1 -2x	
x	y
-2	
-1	
0	
1	
2	
3	
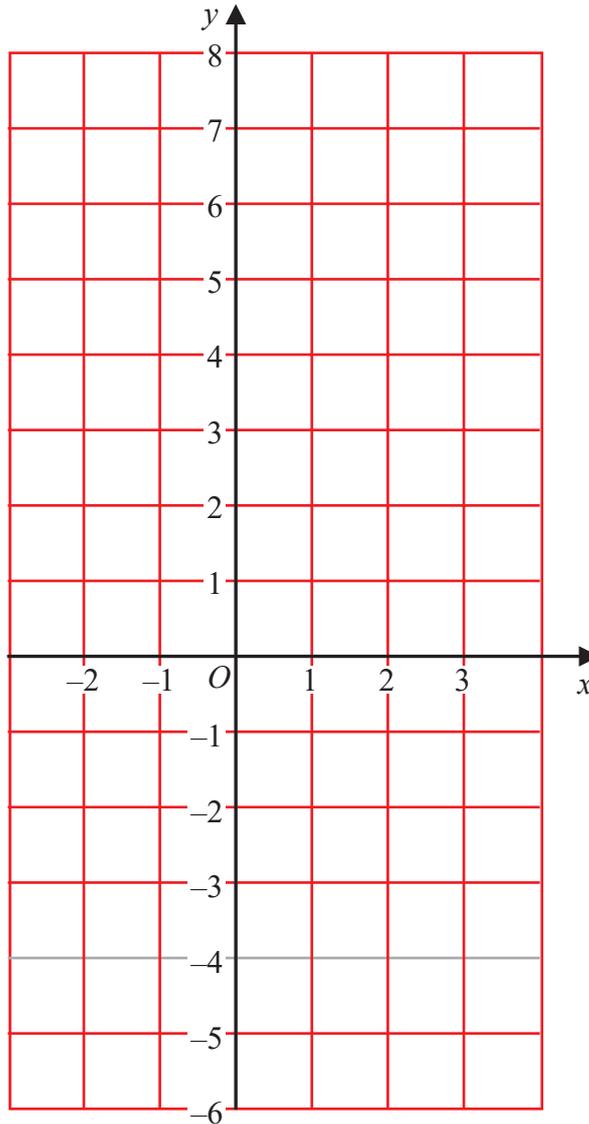
(Total for Question 11 is 3 marks)

12. (a) Show that $\dfrac{7}{8} - \dfrac{5}{12} = \dfrac{11}{24}$

Ans: ___

(2)

(b) Find the highest common factor (HCF) of 130 and 208
Show your working clearly.

Ans: ....

(2)

(Total for Question 12 is 4 marks)

U 7 2 4 3 5 A 0 1 4 2 8

13. (a) Given that $p = t - uv$

work out the value of p **when t = 18, u = -3 and v = 5**

Ans: $p =$ ....

(2)

(b) Make x the subject of the formula $y = 3x + 10$

Ans: ....

(2)

(Total for Question 13 is 4 marks)

Turn over ▶

14. (a) **Look at the diagram for Question 14 (a) in the separate Diagram Booklet.**
The diagram shows triangle A on a coordinate grid.
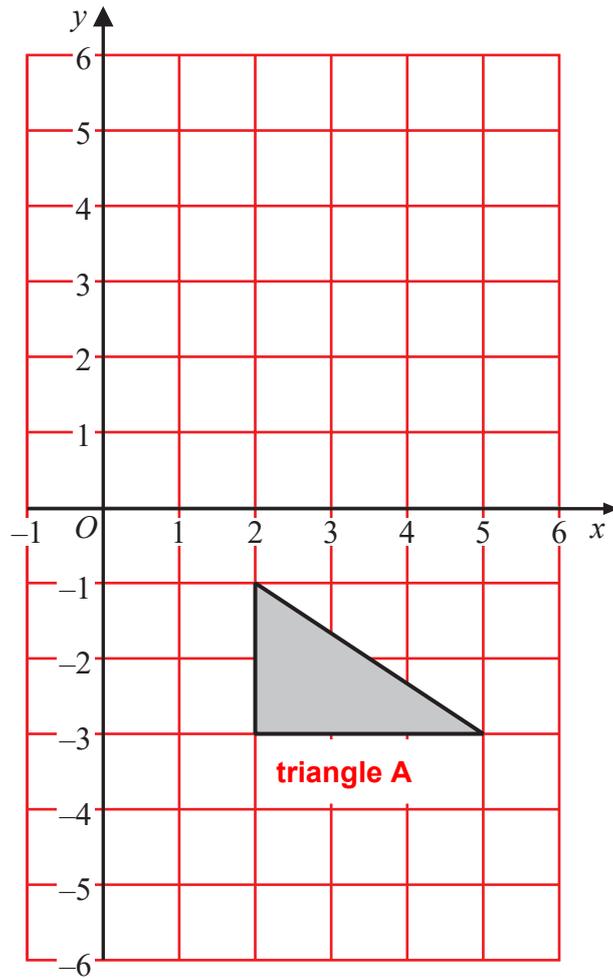
triangle A

On the grid, rotate triangle **A** 90° anticlockwise about centre *O*

A spare tactile diagram and cut out shape are provided for this question.

(2)

**(b) Look at the diagram for Question 14 (b) in the separate Diagram Booklet.
The diagram shows triangle B and triangle C on a coordinate grid.**
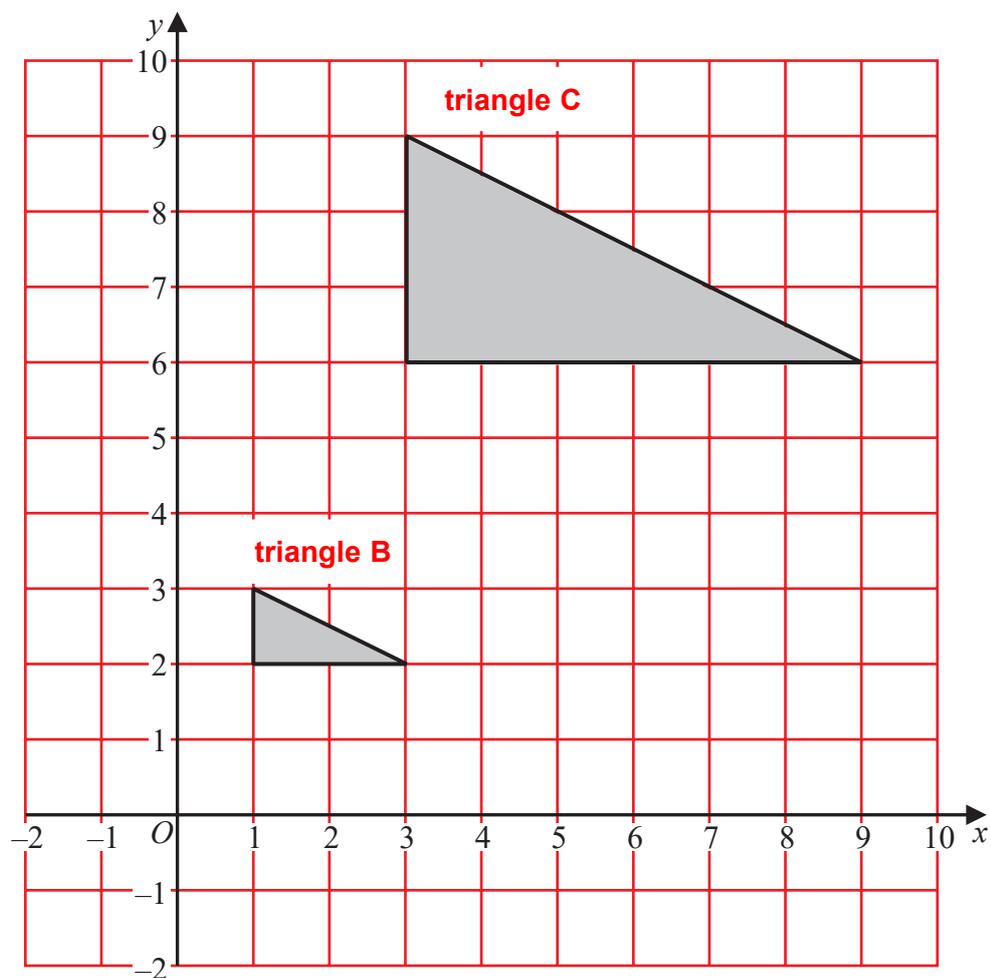
Describe fully the single transformation that maps triangle **B** onto triangle **C**

Ans: ....

....

....

(2)

(Total for Question 14 is 4 marks)

U 7 2 4 3 5 A 0 1 7 2 8

15. Look at the diagram for Question 15 in the separate Diagram Booklet.
The diagram is NOT accurately drawn.

The diagram shows a floor plan of a stage.
The plan is formed from a triangle and a rectangle.

In the diagram:
  the length of the rectangle = 4.8 m
  the width of the rectangle = 3 m
  the vertical height of the triangle = 2.5 m

2.5 m

Diagram NOT
accurately drawn

3 m

4.8 m
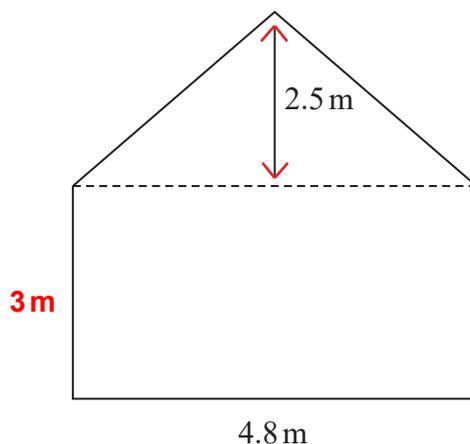
The stage manager is going to paint the floor.

One tin of paint covers an area of $1.8\,m^2$
One tin of paint costs $16.40

Paint can only be bought in full tins.

The stage manager has $190 to spend.

Does the stage manager have enough money to buy enough tins to paint all of the floor?
Show your working clearly.

Ans: ____

(Total for Question 15 is 5 marks)

16. 80 students entered a dancing competition.

The table **below** gives information about the length of time, in minutes, for which each student spent dancing.

Time (*m*)	Frequency
$0 < m \leqslant 12$	11
$12 < m \leqslant 24$	25
$24 < m \leqslant 36$	23
$36 < m \leqslant 48$	15
$48 < m \leqslant 60$	6

Work out an estimate for the mean length of time the students spent dancing.

Ans: .... minutes

(Total for Question 16 is 4 marks)

17. Solve $3(2 - 4x) = 5 - 8x$

Show clear algebraic working.

Ans: $x =$ ....

(Total for Question 17 is 3 marks)

18. **Look at the diagram for Question 18 in the separate Diagram Booklet.**
   The diagram shows the straight line, AB.
   Use ruler and compasses only to construct the perpendicular bisector of line AB.
   You must show all your construction lines.
   Drawing film is provided for this question.

A |————————————————————————| B

(Total for Question 18 is 2 marks)

19. **Look at the diagram for Question 19 in the separate Diagram Booklet.**
   The diagram is NOT accurately drawn.
   The diagram shows a pentagon, **ABCDE.**
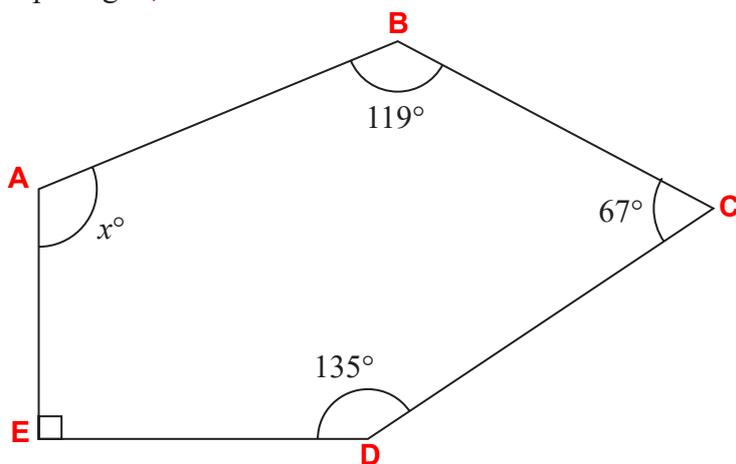
Diagram **NOT**
accurately drawn

In the diagram:
   angle ABC = 119º
   angle BCD = 67º
   angle CDE = 135º
   angle DEA is aright angle
   angle EAB is marked xº

Work out the value of x

Ans: $x =$ ....

(Total for Question 19 is 3 marks)

20. In a box, there are only green sweets, orange sweets and yellow sweets.

There are 280 sweets in the box so that**,**

the number of green sweets : the number of orange sweets = 2 : 3

and

the number of orange sweets : the number of yellow sweets = 1 : 5

Work out how many green sweets there are in the box.

Ans: ....

(Total for Question 20 is 3 marks)

21. (a) Shane bought a car.

The amount Shane paid for the car was $32,000

Theresa also bought a car.
To pay for this car, Theresa paid a deposit of $18,000 together with 14 monthly payments of $1160

Theresa paid more for her car than Shane paid for his car.

Work out how much more Theresa paid as a percentage of the amount Shane paid.

Ans: ....%

(4)

(b) Kylie bought a van.

After 1 year, the value of the van was $39 865
During this year, the value of the van decreased by 15%

Work out the value of the van when Kylie bought it.

Ans: $...

(3)

(Total for Question 21 is 7 marks)

22. Some members of a library were asked to name the type of book that they each liked to read the best.

One of the members is chosen at random.
The table **below** shows information about the probability of the type of book that this member answered.

Type of book	comedy	romance	mystery	thriller
Probability	0.24	0.40	$3x$	x

48 members answered comedy books.

Work out how many of the members answered mystery books.

Ans: ....

(Total for Question 22 is 4 marks)

23. **Look at the diagram for Question 23 in the separate Diagram Booklet.**
The diagram is NOT accurately drawn.
The diagram shows a triangle, *ABC,* inside a semicircle.

Diagram **NOT** accurately drawn

C

18 cm

50°

A   *B*
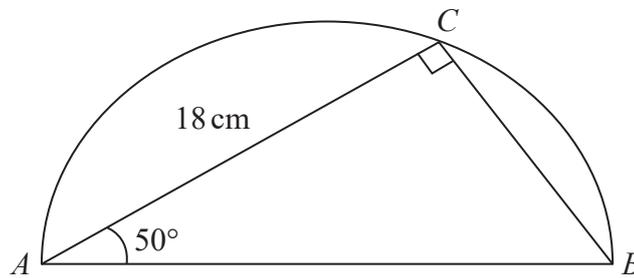
A, *B* and *C* are points on the semicircle.

AB is the diameter of the semicircle.

In the diagram:
Angle *ACB* = 90°
Angle *BAC* = 50°
AC = 18 cm

Work out the perimeter of the semicircle.
Give your answer correct to 2 significant figures.

Ans: .... cm

(Total for Question 23 is 5 marks)

24. (a) Write 6.25×10^{-4} as an ordinary number.

Ans: ....

(1)

(b) Work out $(2.4 \times 10^{12}) \div (9.6 \times 10^{4})$

Give your answer in standard form.

Ans: ....

(2)

(Total for Question 24 is 3 marks)

25. (a) Factorise $y^2 - 2y - 48$

**Ans:** ....

(2)

(b) **Look at the diagram for Question 25 (b) in the separate Diagram Booklet.**
The diagram shows an inequality on a number line.
Write down the inequality shown on the number line
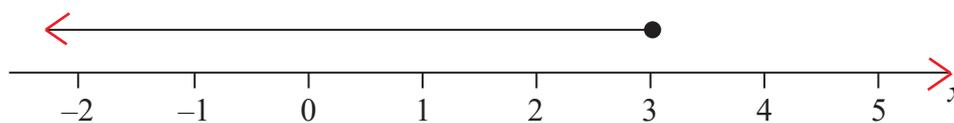
Ans: ....

(1)

(c) Solve the inequality $7w + 6 > 12w + 14$

Ans: ....

(3)

(Total for Question 25 is 6 marks)

TOTAL FOR PAPER IS 100 MARKS
END OF PAPER