

Paper 2 and Paper 3 Predictions

Edexcel - Foundation
Very High Chance



Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You will need a calculator

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this test

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1. Here is a list of numbers

6 10 11 16 24 30 40

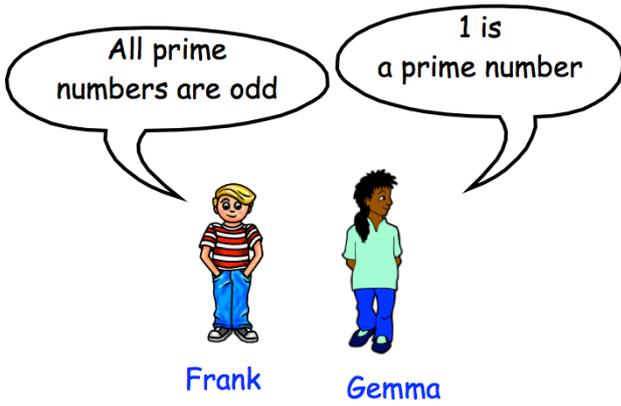
(a) Write down a multiple of 20

.....
(1)

(b) Write down a factor of 12

.....
(1)

2.



Give a reason why each child is wrong.

Frank:

Gemma:

(2)

3. The pictogram shows the books Claire read last year.

Key ○ represents 8 books

Romance	○ ○
Crime	○ ◻
Horror	○ ◐
Factual	◑

(a) How many romance books did Claire read?

.....
(1)

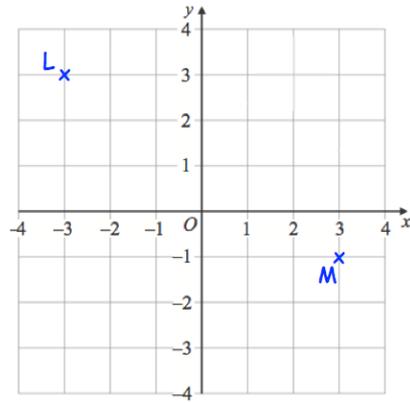
(b) How many horror books did Claire read?

.....
(1)

(c) How many books in total did Claire read last year?

.....
(2)

4.



(a) Write down the coordinates of L.

(..... ,)
(1)

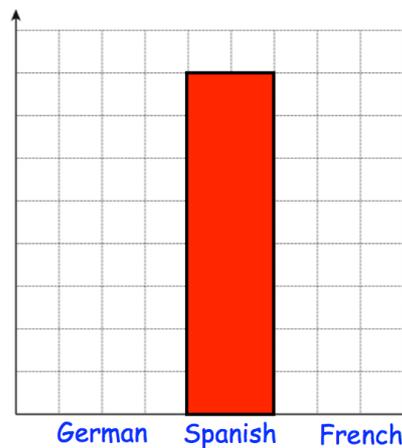
(b) Write down the coordinates of M.

(..... ,)
(1)

(c) Find the coordinates of the midpoint of LM.

(..... ,)
(2)

5. Ms Bell asked the 32 students in her tutor group which language they study. Each student studies one language only.

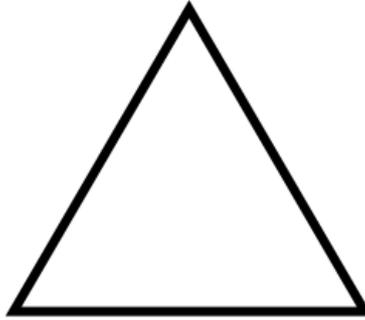


Half of the students in the tutor group study Spanish.
Six more students study German than French.

Complete the bar chart.

(4)

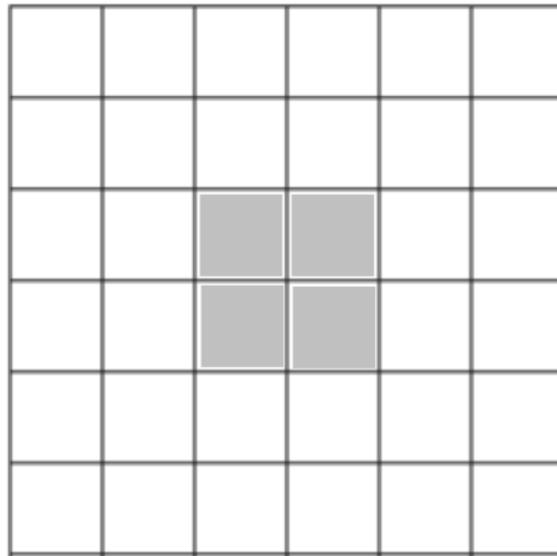
6. (a) An equilateral triangle is drawn below.



Draw all the lines of symmetry.

(2)

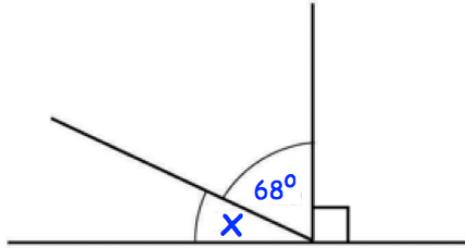
(b) Four small squares are shaded in the diagram below.



Shade in four more small squares to make a pattern with rotational symmetry order 4.

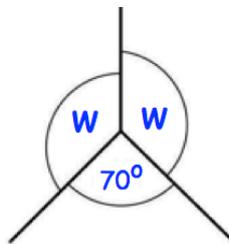
(2)

7.



(a) Calculate angle x.

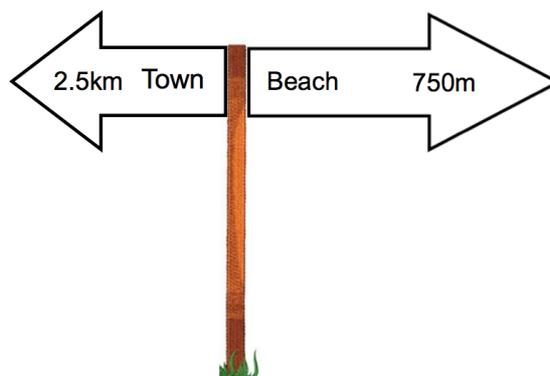
.....⁰
(1)



(b) Calculate angle w.

.....⁰
(1)

8.



Work out the distance between the town and the beach.
State your units.

.....
(3)

9. A football team played six games.

Here are the number of goals they scored in each game:

6 0 3 2 2 5

(a) Work out the median number of goals scored.

.....
(2)

(b) Work out the mean number of goals scored.

.....
(2)

The football team play one more game.
The mean number of goals scored increases to 4.

(c) Work out the number of goals scored in the seventh game.

.....
(2)

10. (a) Simplify $s + s + s + s - s$

.....
(1)

(b) Simplify $5c - 3s + 3c + 7s$

.....
(2)

(c) Simplify $8a + 3c - 5c + 3a$

.....
(2)

(d) Simplify $3a + 2w - 5a - 9w$

.....
(2)

(e) Simplify $3y^2 + 2w^2 + y^2 - w^2$

.....
(2)

-
11. Molly visits a restaurant with her friends.
This is a menu.

Starters	Mains
Soup	Chicken
Prawn Cocktail	Beef
Melon	Pizza

Molly chooses one starter and one main.

List all the possible combinations.

.....
.....
.....

(2)

12. Calculate the value of

$$\begin{array}{r} 13.2 - 1.29 \\ \hline 39.1 - 44.8 \end{array}$$

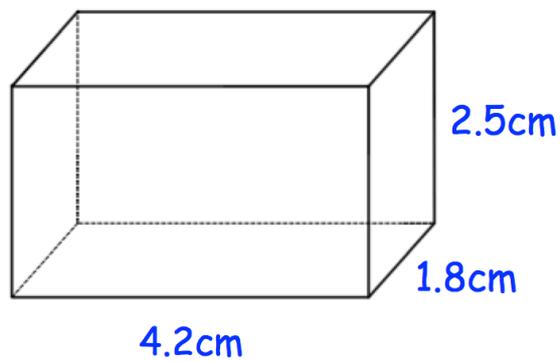
(a) Write down your full calculator display.

.....
(1)

(b) Give your answer to three significant figures.

.....
(1)

13.



Work out the volume of this cuboid.
State the units of your answer.

.....
(2)

14. The temperature, in °C, at midnight at a weather station on 5 days was recorded

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Temperature	-4	1	-6	1	-2

(a) What fraction of the days had a temperature below 0°C?

.....
(1)

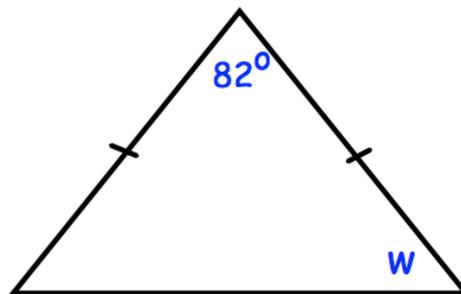
(b) What is the range of the temperatures?

.....°C
(1)

(c) What is the mean of the temperatures recorded?

.....°C
(2)

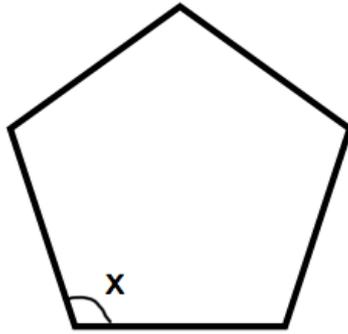
15. Shown below is an isosceles triangle.



Work out the size of the angle marked w .

.....°
(2)

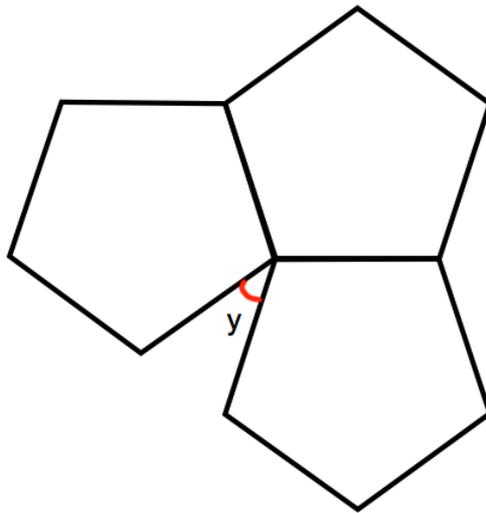
16. Shown below is a regular pentagon.



(a) Find the size of each interior angle.

$$x = \dots\dots\dots^{\circ}$$

(2)



Three identical regular pentagons are joined as shown above.

(b) Work out the size of angle y .

$$y = \dots\dots\dots^{\circ}$$

(2)

17. Write the following numbers in standard form.

(a) 40000

.....
(1)

(b) 5600

.....
(1)

(c) 41200000

.....
(1)

(d) 0.00000008

.....
(1)

18. (a) Write as a fraction.

$$5^{-3}$$

.....
(1)

(b) Work out

$$25^0$$

.....
(1)

19. Shown below is a recipe for Stuffed Turkey.

Stuffed Turkey

Serves 4

Turkey	500g
Red Onion	1
Garlic Cloves	2
Chestnut Mushrooms	150g
Spinach	140g
Chicken Stock	300ml

Mary wants to make Stuffed Turkey for 10 people.
How much of each ingredient is needed?
Include units.

Turkey:

Red Onions:

Garlic Cloves:

Chestnut Mushrooms:

Spinach:

Chicken Stock:

(5)

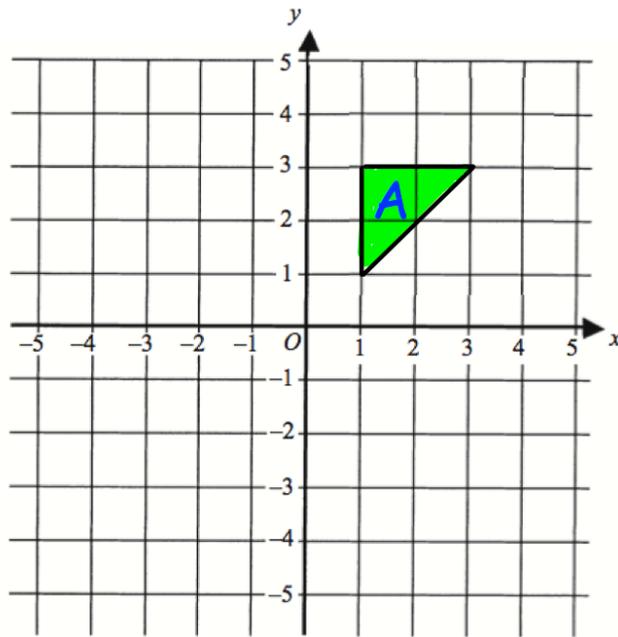
20 The table gives information about the number of people voting for each party at an election.

Party	Number of Votes
Gold Party	12598
Pink Party	9112
Brown Party	20059
Purple Party	4466

There are 52852 people who can vote
The target was that 88% of people would vote.
Was the target met?

(3)

21.

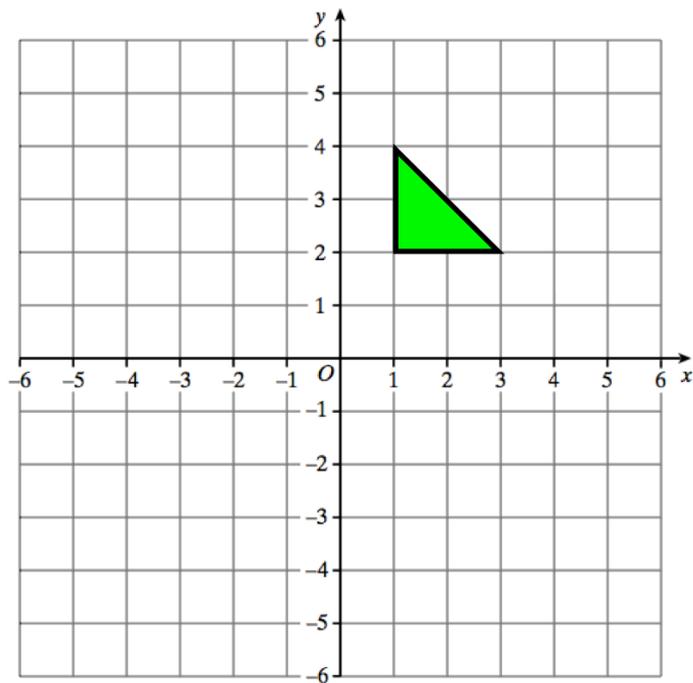


$$\begin{pmatrix} -3 \\ 1 \end{pmatrix}$$

Translate triangle A by the vector

(2)

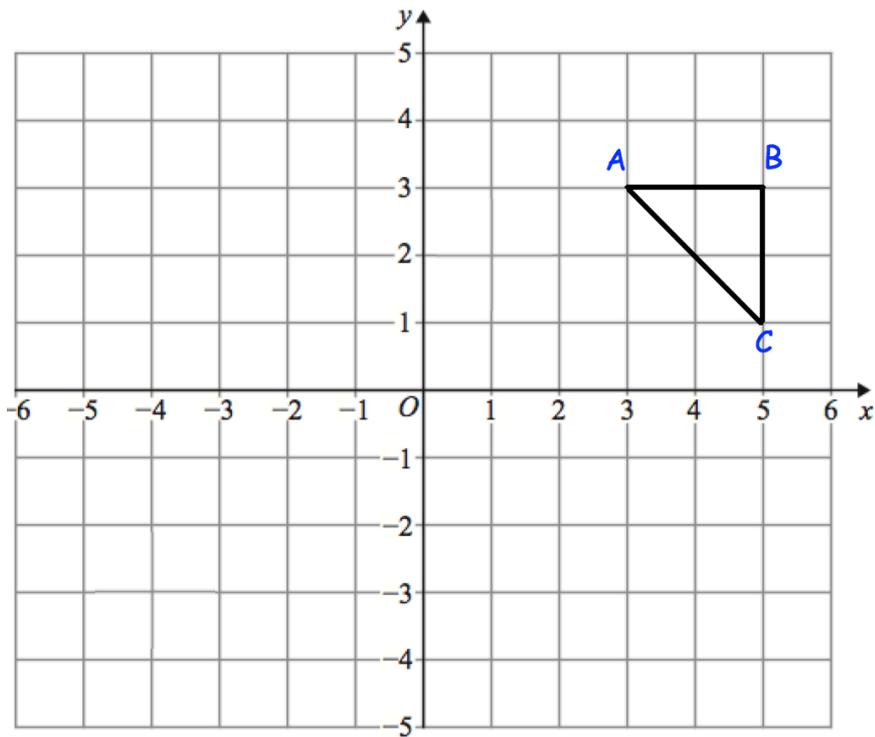
22.



Reflect the triangle in the line $y = -1$
Label the new triangle B.

(2)

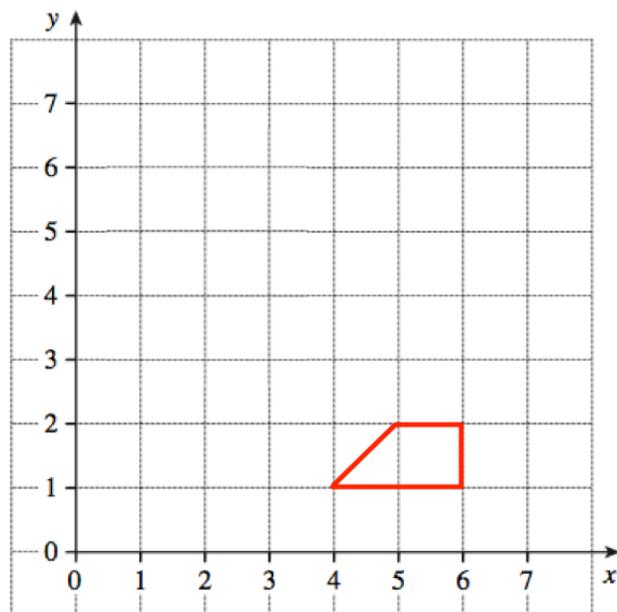
23.



Rotate triangle ABC 180° about centre (1, 0)

(3)

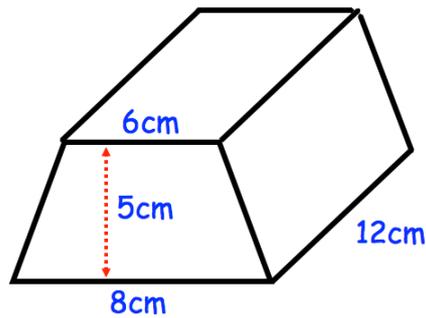
24.



Enlarge the trapezium by scale factor 3, centre (6, 0).

(2)

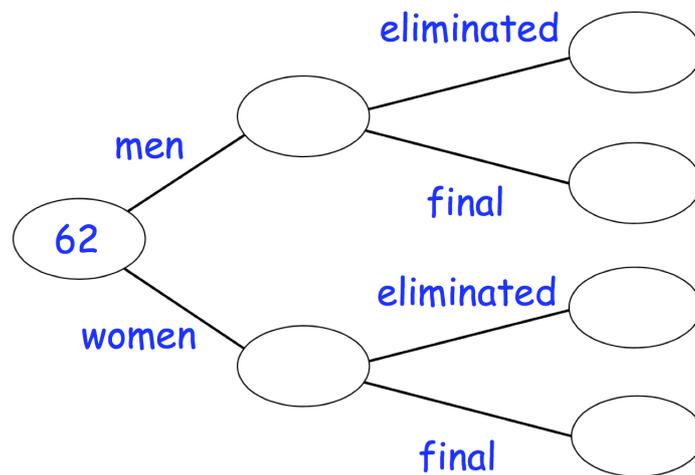
25. Shown below is a trapezoid prism.



Find the volume of the prism.

.....cm³
(4)

26. 62 people took part in a talent show
 43 of the people were women.
 10 people made it through to the final and the rest were eliminated.
 3 men made it through to the final



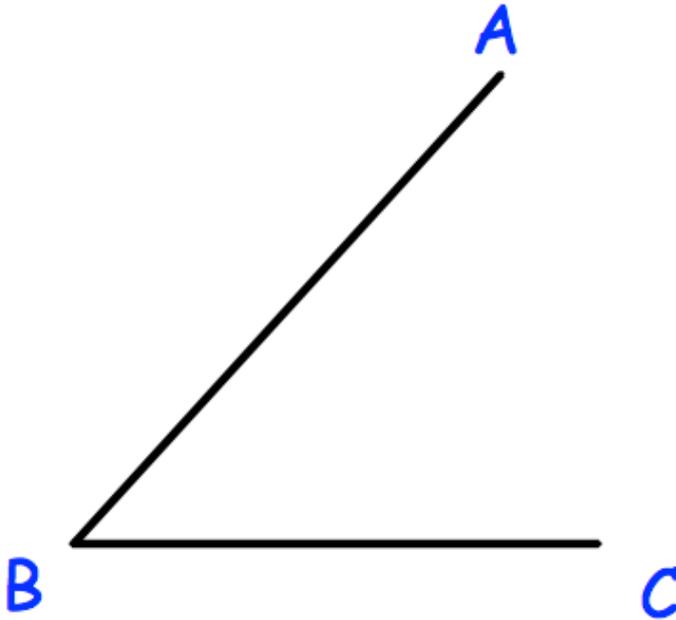
a) Complete the frequency tree

(2)

b) What fraction of the men made it through to the final?

.....
(2)

27. Using ruler and compasses, construct the bisector of angle ABC.



(2)

28. On a particular day, 98 adults visit a leisure centre.

Some are going to the gym.
Some are going to play tennis.
Some are going to play badminton.
The rest are going swimming.

51 people are male.
21 out of the 40 going to the gym are male.
19 males and 7 females are going swimming.
7 out of the 20 people playing badminton are male.
Twice as many females play tennis than males.

How many women play tennis?

.....
(2)

29. Factorise completely

$$24x^2 + 20x$$

.....
(2)

30. (a) Simplify

$$m^5 \times m^3$$

.....
(1)

(b) Simplify

$$m^8 \div m^2$$

.....
(1)

(c) Simplify

$$(m^3)^2$$

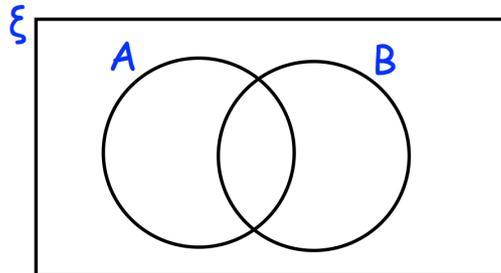
.....
(1)

31. $\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16\}$

A = multiples of 3

B = multiples of 5

(a) Complete the Venn diagram



(3)

One of the numbers is selected at random.

(b) Write down $P(A \cap B)$

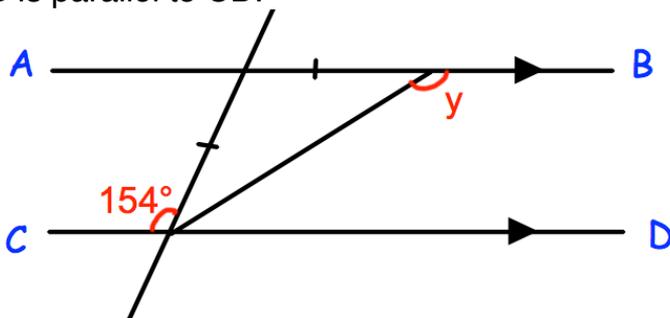
.....
(1)

33. A coat in London costs £60.
The same coat in Dublin costs €105.60.
The exchange rate is £1 = €1.65.

In which city is the coat cheaper and by how much?

(3)

34. AB is parallel to CD.



Work out the size of angle y .
Give reasons for your answer.

.....°
(4)

35. A car travels 240 kilometres in 3 hours 15 minutes.

Calculate the average speed, in km/h, of the car.

.....km/h
(3)

36. A supermarket sells Baked Beans in two different size cans.



215g

40p



395g

74p

Which size can is the best value for money?
You must show all your working.

(4)

37. Helen thinks of two numbers.
The Highest Common Factor (HCF) of her two numbers is 5
The Lowest Common Multiple (LCM) of her two numbers is a multiple of 12

Write down two possible numbers that Helen could be thinking of.

..... and
(2)

38. At a rugby match, the ratio of children to adults is 2 : 3
There are 6000 children in the crowd.
Each adult ticket costs £8
Each child ticket costs a quarter of the adult ticket.

Work out the total money made from ticket sales.

£.....
(4)

39. The first 5 terms in a number sequence are

1 4 7 10 13

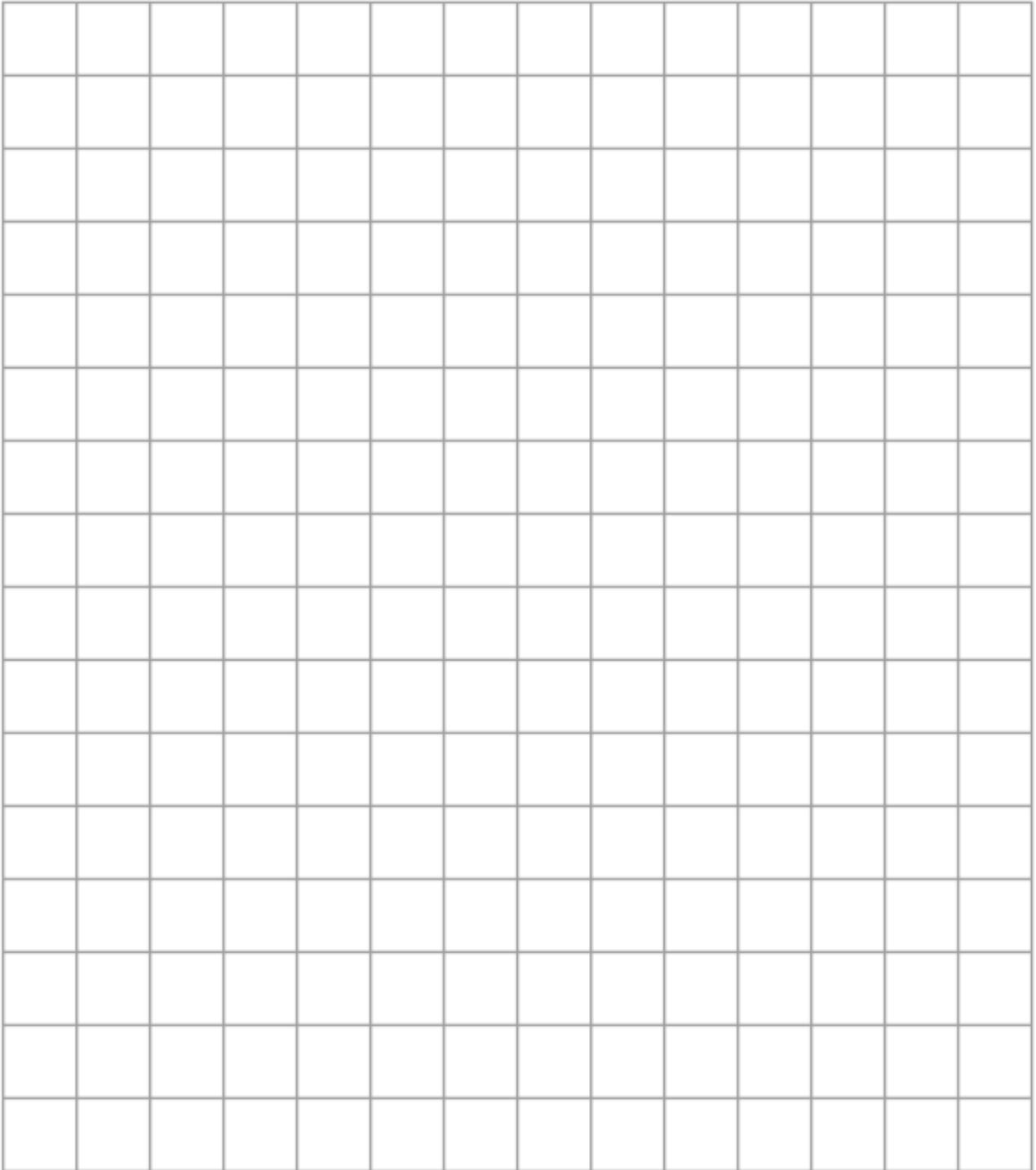
(a) Work out the n th term of the sequence.

.....
(2)

(b) Find the 50th term of the sequence.

.....
(2)

40. On the grid, draw $y = 4x - 5$ for values of x from -2 to 2 .



(4)

41. Helen plays darts.

Here are her scores.

55 23 48 29 41 47 36
35 40 35 44 34 35

(a) Draw an ordered stem and leaf diagram to show her scores.

(3)

(b) Write down the mode.

.....
(1)

(c) Work out the range.

.....
(1)

42. Timothy asked 30 people how long it takes them to get to school.

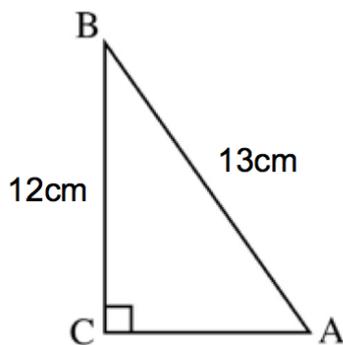
The table shows some information about his results.

Time (t minutes)	Frequency
$0 < t \leq 10$	2
$10 < t \leq 20$	8
$20 < t \leq 30$	12
$30 < t \leq 40$	7
$40 < t \leq 50$	1

Work out an estimate for the mean time taken.

.....minutes
(4)

43.



Calculate the size of angle BAC.

.....°
(3)

44. Fiona leaves £1600 in the bank for four years.
It earns compound interest of 4% each year.

Calculate the total amount Fiona has in the bank at the end of the four years.

£.....
(3)

45. Lauren is given a 12% pay rise.
Her new salary is £24,080

What was Lauren's salary before the pay rise?

£.....
(3)

46. Solve the simultaneous equations

$$3x + 5y = 1$$

$$2x - 3y = 7$$

Do not use trial and improvement

$x = \dots\dots\dots y = \dots\dots\dots$
(4)

47. (a) Factorise $y^2 + 7y + 10$

.....
(2)

(b) Factorise $y^2 - 12y - 64$

.....
(2)

(c) Factorise fully $y^2 - 25$

.....
(2)

(d) Factorise $y^2 - 13y + 36$

.....
(2)

48. The diagram shows the position of two people, A and B, who are on their Duke of Edinburgh expedition.



The bearing of person C from person A is 062°
The bearing of person C from person B is 275°

In the space above, mark the position of person C with a cross (x). Label it C.

(3)