Name:

GCSE Maths Practice Paper
CCEA Unit M2
Set A
Calculator Paper

Corbettmaths

Equipment

1. A black ink ball-point pen.
2. A pencil.
3. An eraser.
4. A ruler.
5. A pair of compasses.
6. A protractor.
7. A calculator

Guidance

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

Information

1. Time: 1 hour 45 minutes
2. The maximum mark for this paper is 100.
3. The marks for questions are shown in brackets
4. You may use tracing paper.

Question	Mark	Available
1		2
2		3
3		1
4		3
5		5
6		4
7		3
8		7
9		3
10		4
11		3
12		5
13		4
14		4
15		3
16		4
17		4
18		4
19		6
20		6
21		2
22		4
23		5
24		5
25		6
Total		100

1. Declan has £380

He puts $\frac{3}{5}$ of the money in the bank.

How much money does Declan put in the bank?

£.....

(2)

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2. (a) Write the missing number in the box

$$\frac{2}{3} = \frac{\square}{9}$$

(1)

(b) Work out $\frac{2}{3} + \frac{1}{9}$

.....

(2)

3. Write 0.4 as a percentage

.....%

(1)

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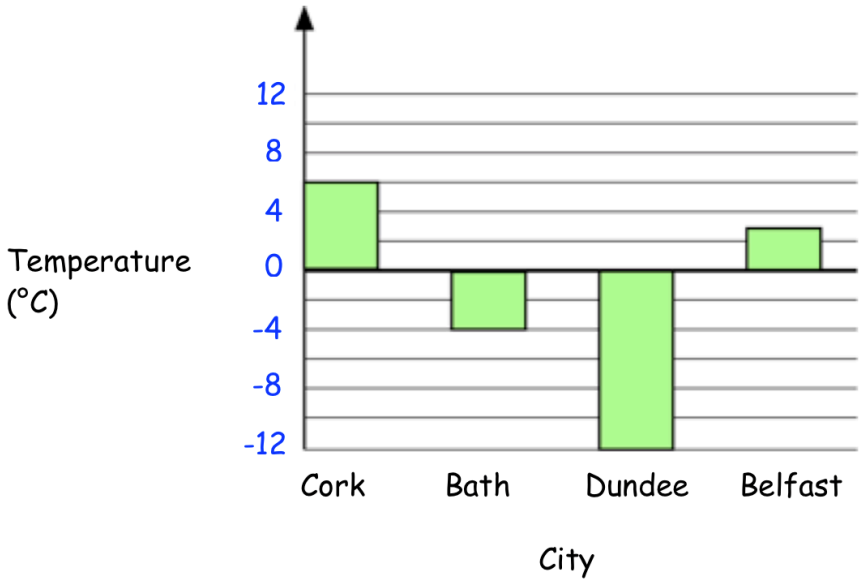
4. This chart shows the temperature in four cities on one day in March.



(a) Find how much warmer it is in Bath than Dundee.

.....°C

(1)

(b) Find the range of the temperatures.

.....°C

(2)

5. Mr and Mrs O'Sullivan and their three children want to book a holiday.

The table shows information about the prices of the flights

Month	Price per person
June	£90
July	£105
August	£115

This table shows the price of room per night for the whole family.

Room	June	July	August
Superior	£40 per night	£52 per night	£55 per night
Family	£50 per night	£65 per night	£70 per night
Deluxe	£80 per night	£85 per night	£90 per night

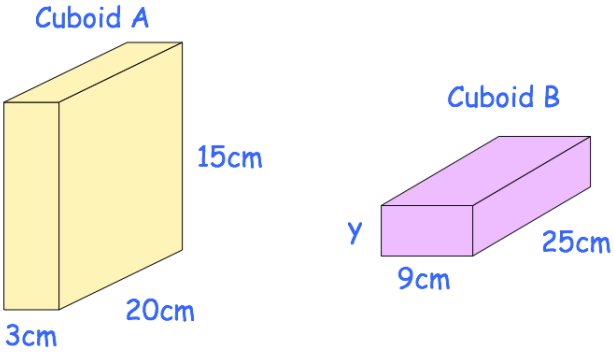
Mr and Mrs O'Sullivan decide to go on a 14 night holiday in July, staying in a Deluxe room.

Work out the total price of the flights and hotel for their holiday.

£.....

(5)

6. Cuboid A and Cuboid B have the same volume.



Calculate y, the missing height of cuboid B.

.....cm

(4)

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7. Michael is going to buy a car.
The car costs £24000.
He pays a deposit of 15%.
Michael pays the rest of the money over 20 monthly payments.
Work out the cost of each monthly payment.

£.....

(3)

8. (a) Simplify $5w - 2x + 9w + x$

.....

(2)

(b) Solve $2y - 3 = 51$

y = ...

(2)

(c) Solve $\frac{t}{5} = 10$

t = ...

(1)

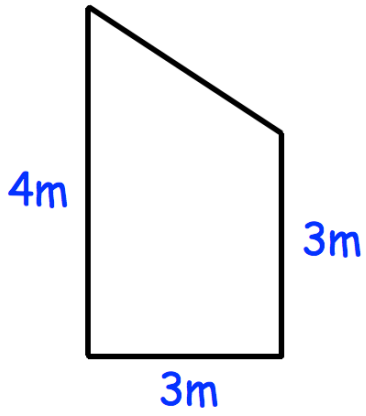
(d) Given that $x = 9$ and $y = 5$

Work out the value of $x^2 - 7y$

.....

(2)

9. Shown below is a wall.



Calculate the area of the wall.
Include suitable units.

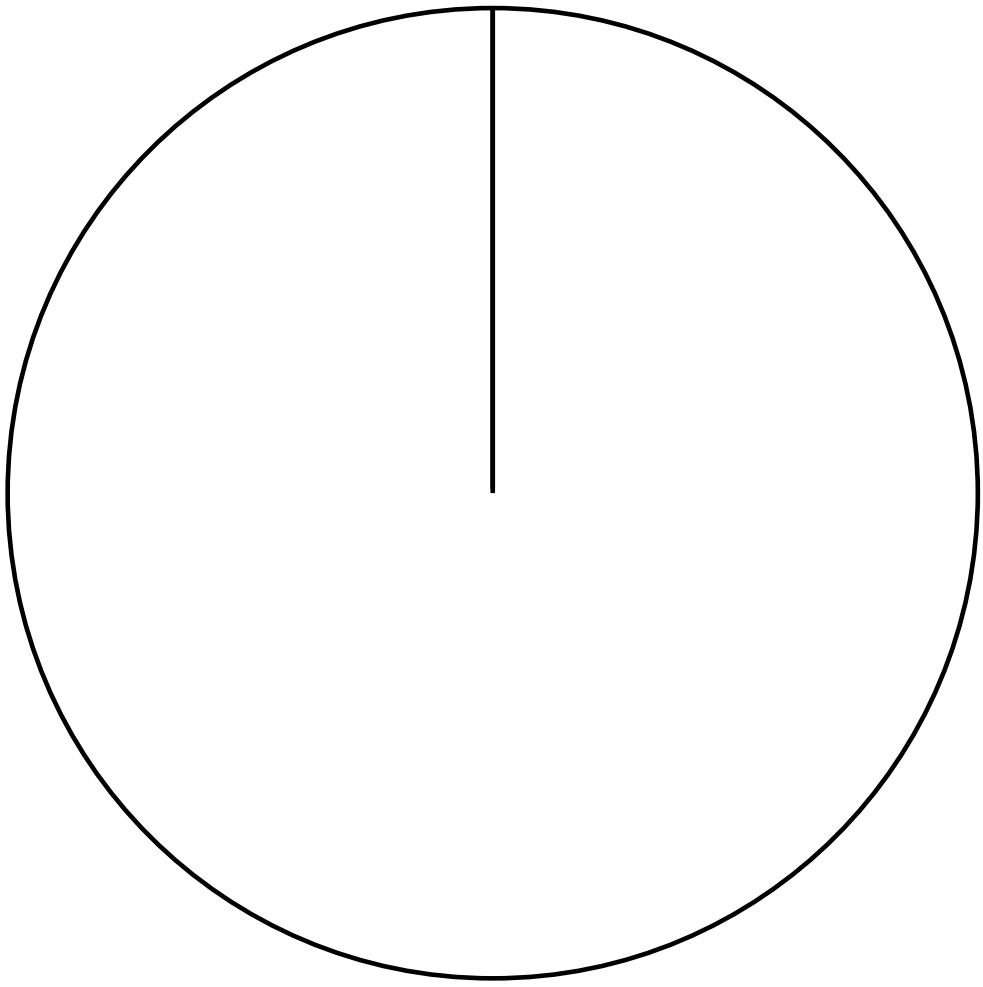
.....

(3)

10. The table shows information on the number prizes given out in prize day.

Year Group	Frequency
7	5
8	17
9	20
10	8

Draw a pie chart for this information



(4)

11. Carolyn invested £700 for 2 years at 3% per annum simple interest.

Work out the total amount of interest Carolyn earned.

£.....

(3)

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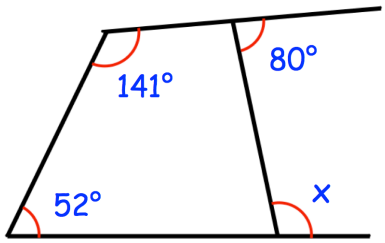
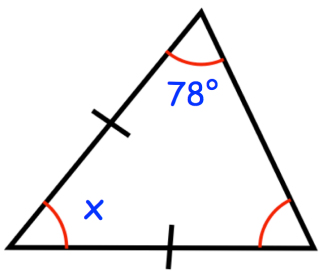
12. (a) Work out the size of the angle x



.....°

(3)

(b) Work out the size of the angle x



.....°

(2)

13. Plums cost £2.40 per kg.
Marissa buys 1.9kg of plums and 3.8kg of apples.
The total cost is £10.64

Work out the cost for 2kg of apples.

£……

(4)

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14. (a) Helen takes 25 shots at basketball training.
She misses 7 shots.

What percentage of the shots did Helen miss?

……

(2)

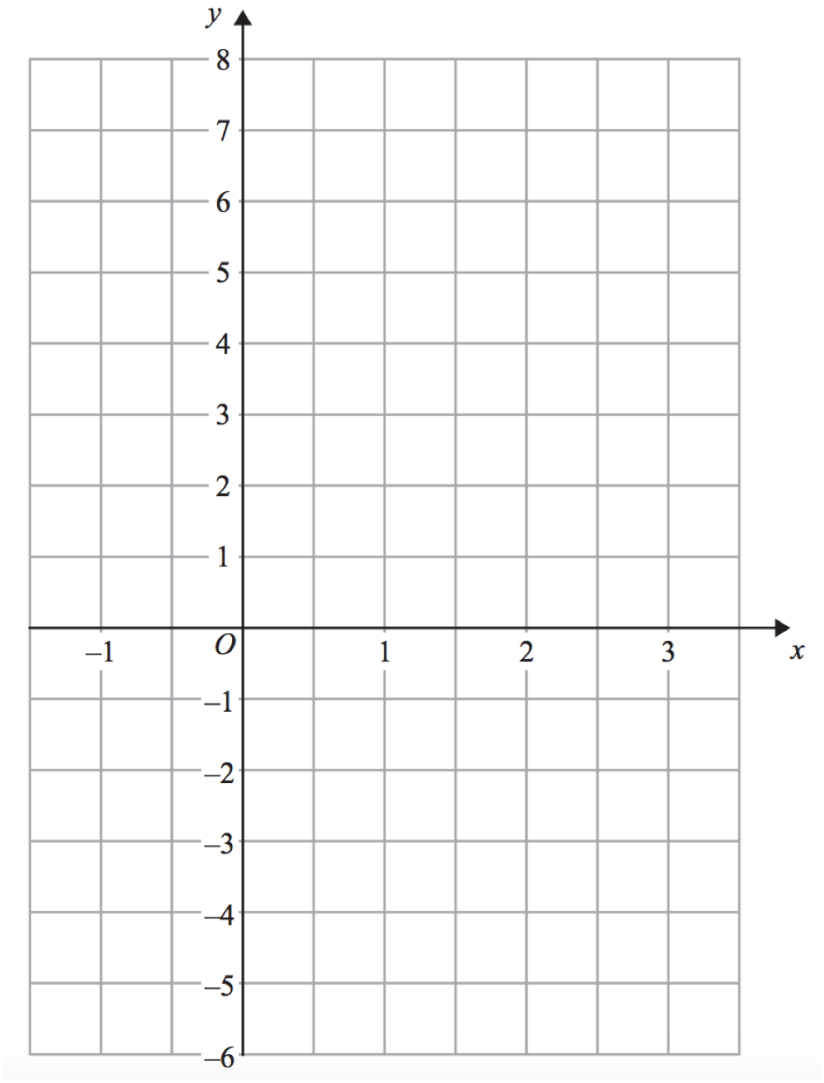
(b) Last season Cleo scored 280 points.
This season she scored 45% more points.

How many points did Cleo score this season?

……

(2)

15. Draw the graph $y = 3x - 1$ on the grid below

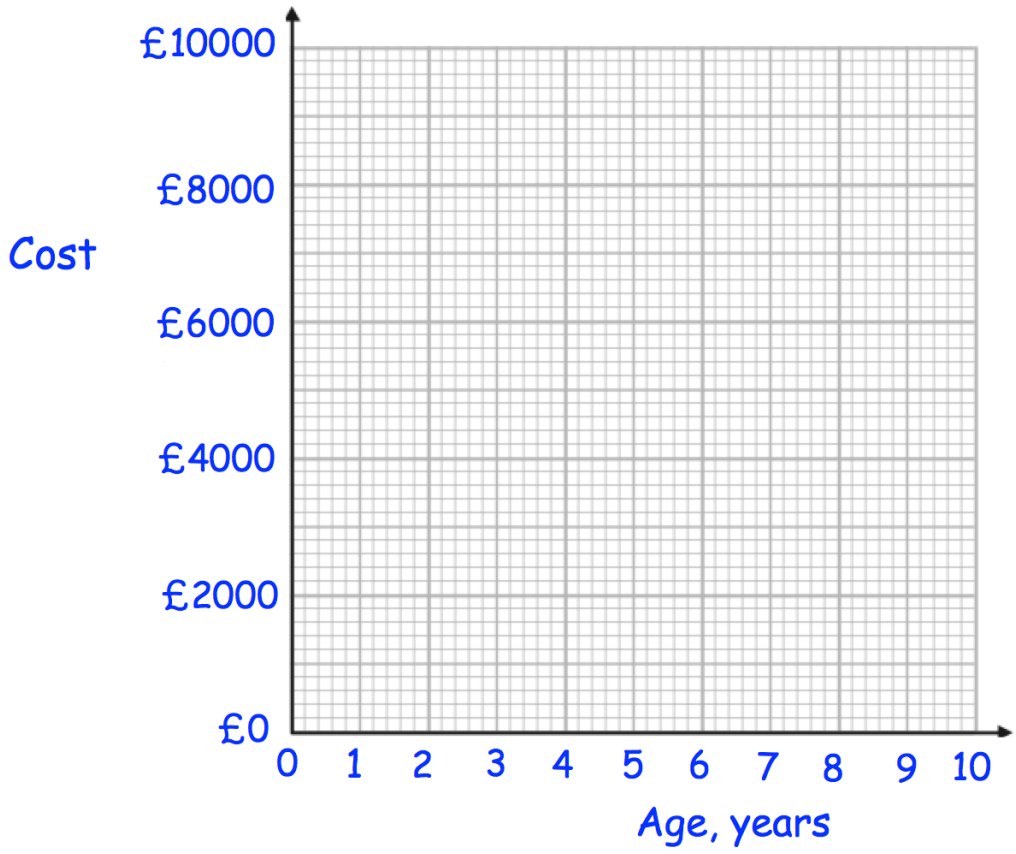


(3)

16. The table below shows the cost of 8 cars being sold.

Age, years	4	7	2	4	1	9	3	6
Cost, £	6000	3000	7500	5000	8000	1500	6000	4000

(a) Plot the information as a scatter graph.



(3)

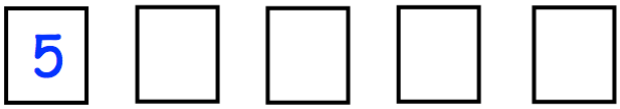
(b) Describe the relationship between the age of the car and the cost.

.....

.....

(1)

17. Shown below are five cards which are arranged in order from smallest to largest



The range of the cards is 6.
The median of the cards is 7.
The mean of the cards is 8.

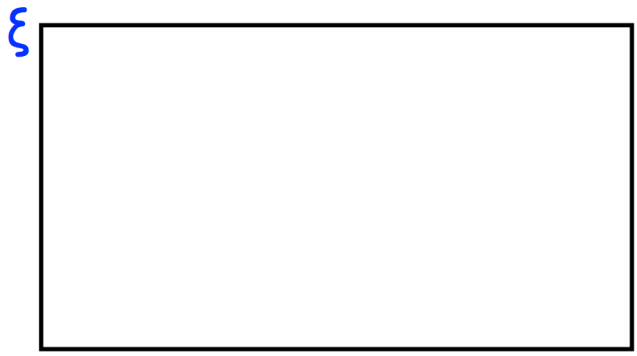
Work out the 4 missing numbers.

(4)

18. A gym runs two fitness classes, spinning and circuits.

On Saturday 100 people visited the gym.
18 people attended the spinning class.
10 people attended both classes.
56 people did not attend either class.

(a) Represent this information on a Venn diagram



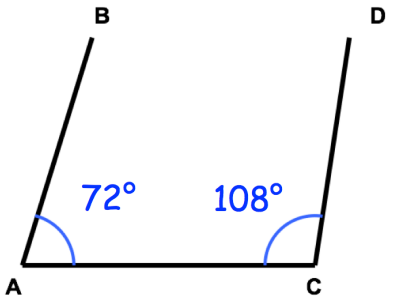
(3)

(b) How many people attend only one class?

.....

(1)

19. (a) Odhran says the lines AB and CD are parallel.
Is Odhran correct?
Explain your answer.



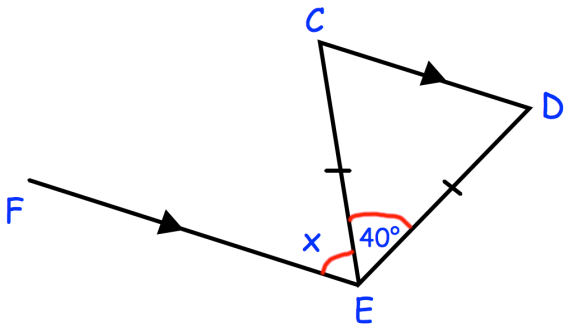
Not drawn accurately

.....

.....

(3)

(b) Find the size of the angle x.



.....°

(3)

20. Nathan delivers pizzas in Dungannon.

The table below shows information about his delivery times, t (minutes).

Delivery Time	Frequency
$0 < t \leq 10$	3
$10 < t \leq 20$	10
$20 < t \leq 30$	14
$30 < t \leq 40$	19
$40 < t \leq 50$	4

(a) Calculate an estimate for the mean delivery time

.....

(4)

If Nathan takes longer than 40 minutes to deliver the pizza, the customer receives a free garlic bread.

(b) What percentage of his deliveries receive a free garlic bread?

.....%

(2)

21. Expand and simplify $6(3x + 2) - 2(5x - 7)$

.....

(2)

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22. (a) Write 675 as a product of prime factors.
Express your answer in index form.

.....

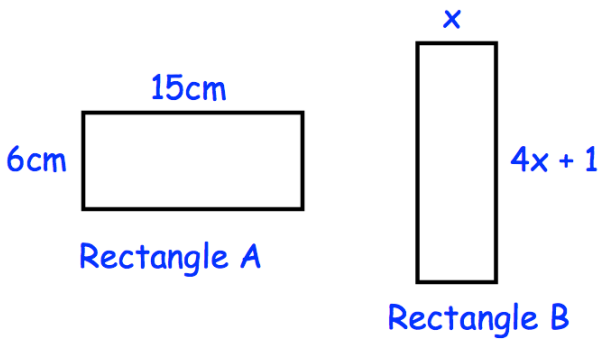
(3)

(b) Hence find the **least** number by which 675 would need to be multiplied by to give a cube number.

.....

(1)

23.



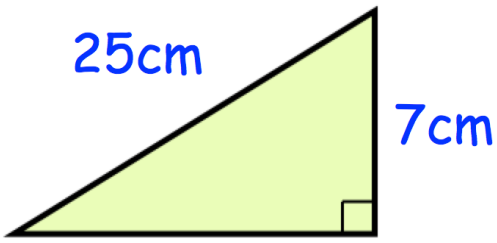
Both rectangles have the same perimeter.

Find the area of rectangle B.

……..cm²

(5)

24. Here is a right angle triangle.



Calculate the area of the triangle.

……..cm²

(5)

25. (a) The value of a painting rises from £120,000 to £192,000.

Work out the percentage increase in the value of the painting.

……%

(2)

(b) Parker bought a house.
In the first year the value of the house decreased by 10%.
In the second year the value of the house increased by 10%.

Is the house worth more, less, or the same as what Parker paid for it?
Show your working out.

……

(4)