

Write your name here

Surname

Other Names

Mathematics

**June 2017 Paper 1 (Non Calculator)
Part 2 (Second half of the paper)
Edexcel Foundation Tier**

Time: 45 minutes

Q	Topic	Max Mark	My Marks
17	Forming and Solving Equations	4	
18	Area of a Circle, Estimation	5	
19	Solving Equations, Inequalities	4	
20	Percentage Increase	2	
21	Scatter Graphs	5	
22	Prime Factors	2	
23	Multiplying Decimals	3	
24	Simplifying Algebra, Forming Equations	3	
25	Pythagoras' Theorem	5	
26	The Equation of a Line, Parallel Lines	2	
27	Vectors (In Shapes)	3	
	Total	38	

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17 5 tins of soup have a total weight of 1750 grams.
4 tins of soup and 3 packets of soup have a total weight of 1490 grams.
Work out the total weight of 3 tins of soup and 2 packets of soup.

..... grams

(Total for Question 17 is 4 marks)

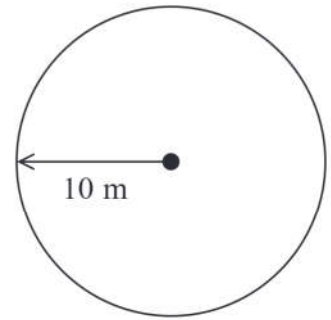


- 18 Balena has a garden in the shape of a circle of radius 10 m.
He is going to cover the garden with grass seed to make a lawn.

Grass seed is sold in boxes.

Each box of grass seed will cover 46 m^2 of garden.

Balena wants to cover all the garden with grass seed.



- (a) Work out an estimate for the number of boxes of grass seed Balena needs.
You must show your working.

.....
(4)

- (b) Is your estimate for part (a) an underestimate or an overestimate?
Give a reason for your answer.

.....
.....
.....
.....
.....
.....
.....
(1)

(Total for Question 18 is 5 marks)



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19 (a) Solve $4(x - 5) = 18$

$x = \dots\dots\dots$
(2)

$-3 < t \leq 2$
 t is an integer.

(b) Write down all the possible values of t .

$\dots\dots\dots$
(2)

(Total for Question 19 is 4 marks)

20 Azmol is paid £1500 per month.
He is going to get a 3% increase in the amount of money he is paid.

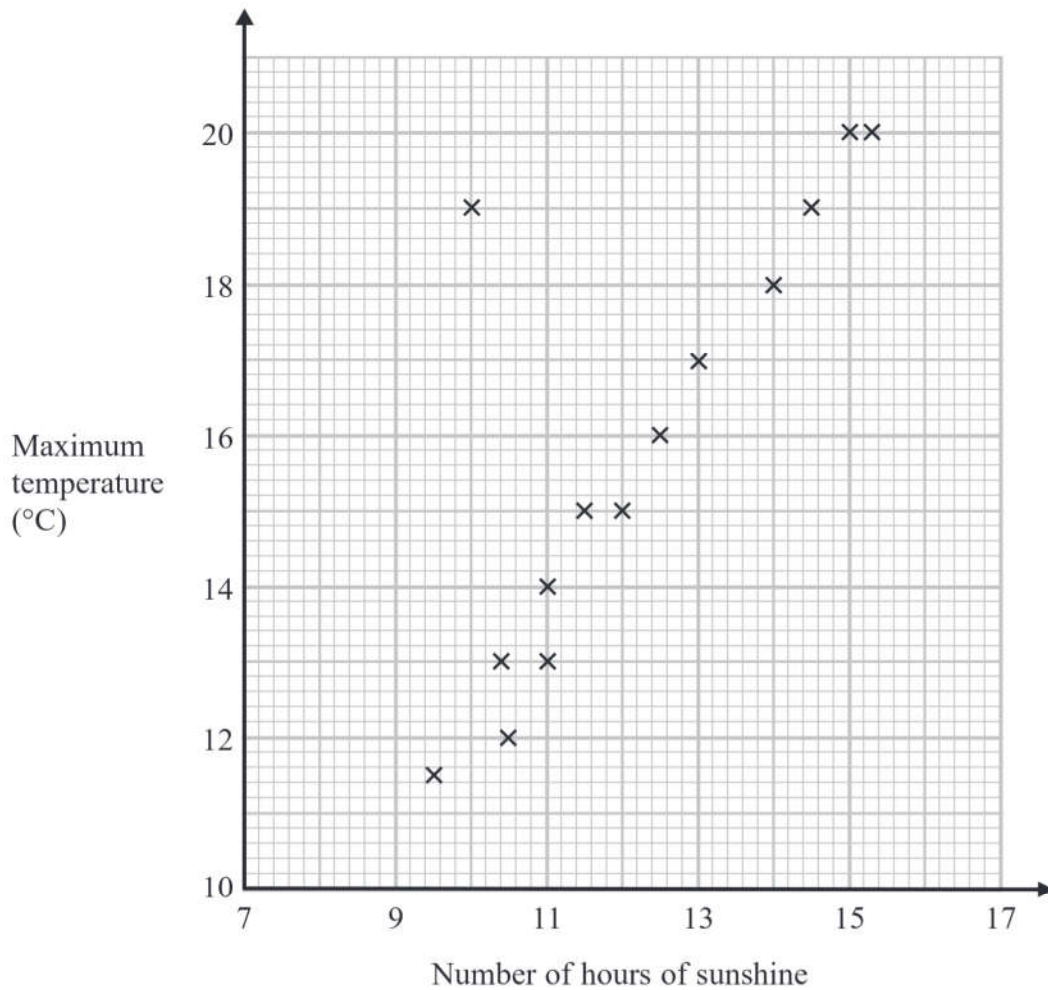
Work out how much money Azmol will be paid per month after the increase.

£ $\dots\dots\dots$

(Total for Question 20 is 2 marks)



- 21 The scatter graph shows the maximum temperature and the number of hours of sunshine in fourteen British towns on one day.



One of the points is an outlier.

- (a) Write down the coordinates of this point.

(.....,)
(1)

- (b) For all the other points write down the type of correlation.

.....
(1)



On the same day, in another British town, the maximum temperature was 16.4°C .

(c) Estimate the number of hours of sunshine in this town on this day.

..... hours

(2)

A weatherman says,

“Temperatures are higher on days when there is more sunshine.”

(d) Does the scatter graph support what the weatherman says?

Give a reason for your answer.

(1)

(Total for Question 21 is 5 marks)

22 Express 56 as the product of its prime factors.

(Total for Question 22 is 2 marks)



23 Work out 54.6×4.3

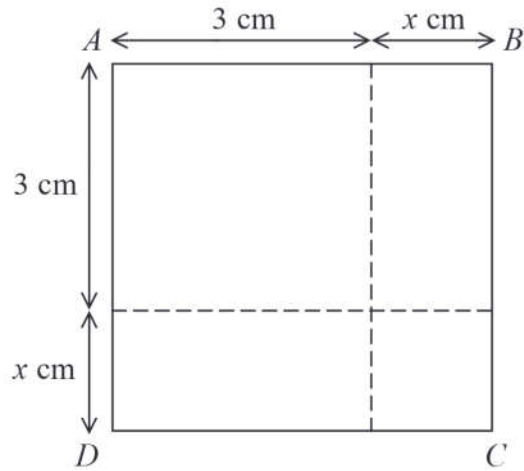
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(Total for Question 23 is 3 marks)





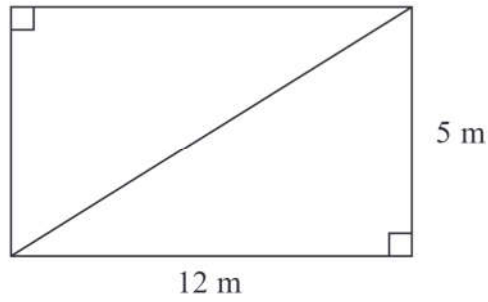
The area of square $ABCD$ is 10 cm^2 .

Show that $x^2 + 6x = 1$

(Total for Question 24 is 3 marks)



25 This rectangular frame is made from 5 straight pieces of metal.



The weight of the metal is 1.5 kg per metre.

Work out the total weight of the metal in the frame.

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..... kg

(Total for Question 25 is 5 marks)



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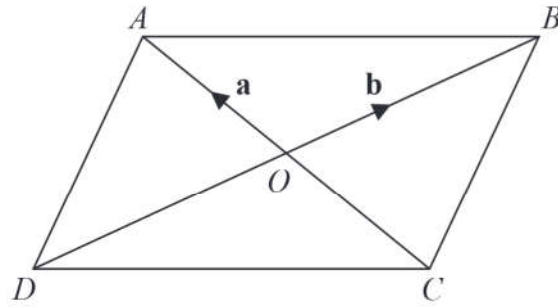
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26 The equation of the line L_1 is $y = 3x - 2$
The equation of the line L_2 is $3y - 9x + 5 = 0$
Show that these two lines are parallel.

(Total for Question 26 is 2 marks)





$ABCD$ is a parallelogram.
The diagonals of the parallelogram intersect at O .

$\vec{OA} = \mathbf{a}$ and $\vec{OB} = \mathbf{b}$

(a) Find, in terms of \mathbf{b} , the vector \vec{DB} .

.....
(1)

(b) Find, in terms of \mathbf{a} and \mathbf{b} , the vector \vec{AB} .

.....
(1)

(c) Find, in terms of \mathbf{a} and \mathbf{b} , the vector \vec{AD} .

.....
(1)

(Total for Question 27 is 3 marks)

TOTAL FOR PAPER IS 80 MARKS

