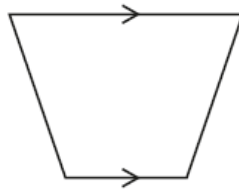


GCSE Mathematics - Paper 1 (Foundation tier)
J560/01 Paper 1 Mathematics (Foundation tier)

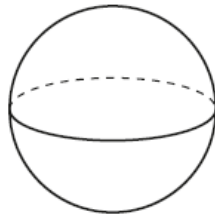
Question Set 4

- 1 (a) Write down the mathematical name of this quadrilateral.



(a) [1]

- (b) Write down the mathematical name of this solid.



(b) [1]

- 2 Simplify.

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

(a) [1]

(b) $3g - 2f + 8g + 5f$

(b) [2]

3 Factorise fully.

(a) $6 + 9y$

(a) [1]

(b) $2x^2 + 6x$

(b) [2]

4 Plaza United are playing a football match away from home.

- (a) 379 supporters are going to the match by coach.
Each coach seats 45 people.

What is the smallest number of coaches that will be needed?

(a) [2]

- (b) In their last 50 matches, Plaza United have drawn 10 matches, lost 5 and won the rest.

Sam claims

The probability that Plaza United will win this match is 0.7.

- (i) Show calculations to support Sam's claim. [2]

- (ii) Give one reason why Sam's claim may not be reliable.

.....
..... [1]

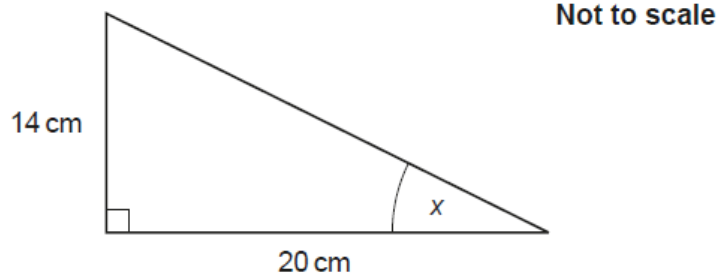
- 5 Harry has a job.
On Friday, he is paid £8.50 per hour.
On Saturday, he is paid $1\frac{1}{2}$ times that rate.

He works for 4 hours on Friday.
He works from 8 am until 1 pm on Saturday.

How much does Harry earn in total for these two days?

£ [6]

- 6 Here is a right-angled triangle.



Show that angle x is 35° , correct to the nearest degree. [3]

- 7 Andrea is 165 cm tall, correct to the nearest cm.
Joel is 170 cm tall, correct to the nearest 10 cm.

Show that Andrea could be taller than Joel. [3]

8 Carol makes birthday cards.
Each card takes the same amount of time to make.

She makes 3 cards in 48 minutes.
She has an order for 80 cards.

Can she complete this order in 3 days if she works 8 hours each day?
Show how you decide.

..... because

..... [5]

9 The table below shows the area, in square kilometres (km²), of some countries.

Country	Area (km ²)
Australia	7.69×10^6
Latvia	6.46×10^4
Luxembourg	2.59×10^3
Russia	1.71×10^7
Singapore	7.24×10^2
Sweden	4.50×10^5

(a) Write the area of Sweden as an ordinary number.

(a) km² [1]

(b) Which of the above countries has the smallest area?

(b) [1]

(c) Alexis says

The area of Australia is approximately three times larger than the area of Luxembourg.

Is she correct?
Show how you decide.

Alexis is because
..... [2]

(d) Work out the total area of Russia and Australia.
Give your answer in standard form, correct to 2 significant figures.

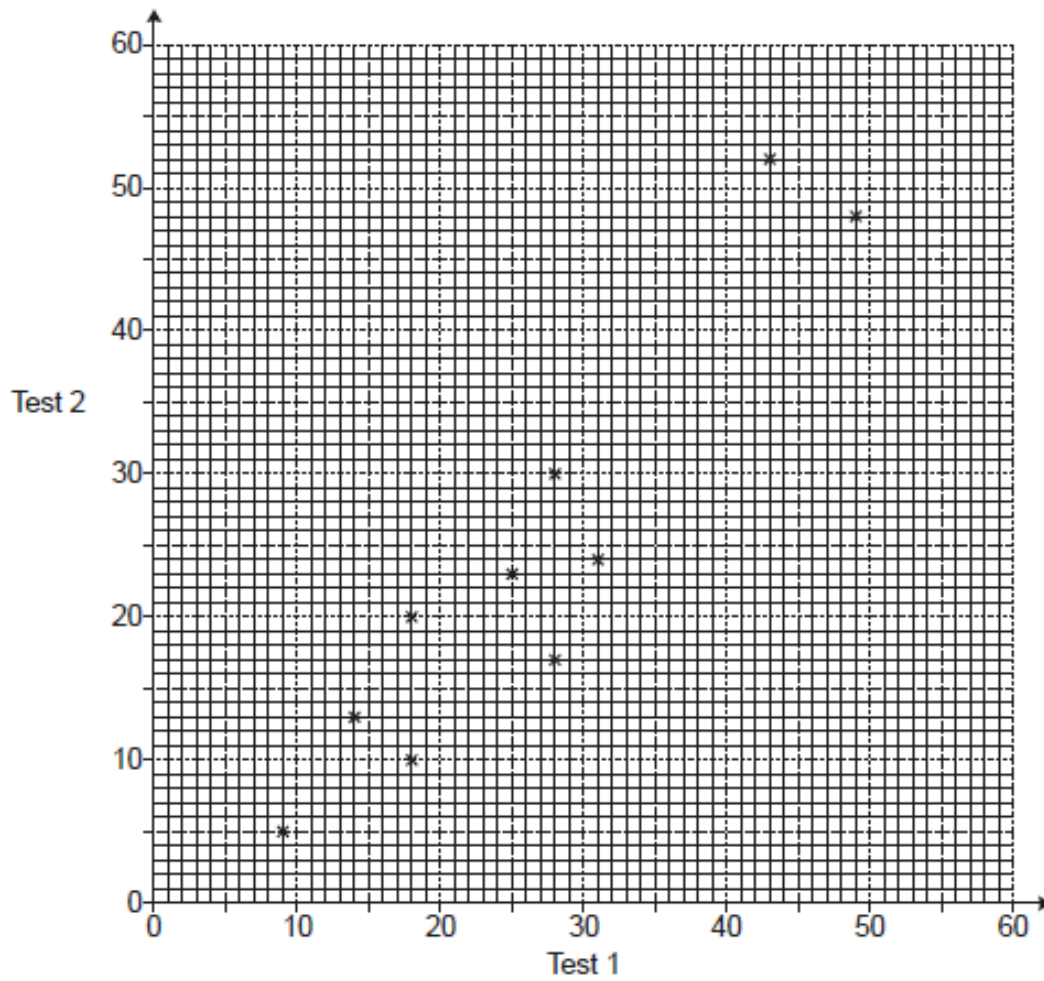
(d) km² [4]

10

12 students take two tests.

Each test is out of 60.

The scatter diagram shows the results for 10 of the students.



(a) The table shows the results for the other 2 students.

Test 1	36	38
Test 2	44	41

Plot these results on the scatter diagram.

[1]

(b) Describe the type of correlation shown in the scatter diagram.

(b) [1]

(c) (i) Draw a line of best fit on the scatter diagram. [1]

(ii) Another student was absent for Test 2.
The student scored 40 marks on Test 1.

Use your line of best fit to estimate a result for this student on Test 2.

(c)(ii) [1]

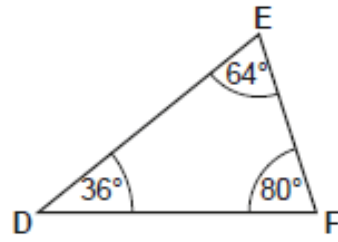
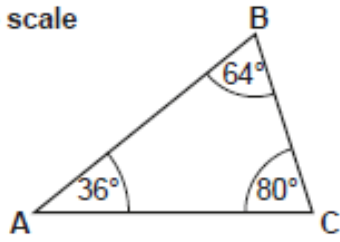
(d) Work out the percentage of **the 12 students** whose result on Test 1 is **lower** than their result on Test 2.

(d)% [4]

11

- (a) Are these two triangles definitely congruent?
Give a reason.

Not to scale



..... because

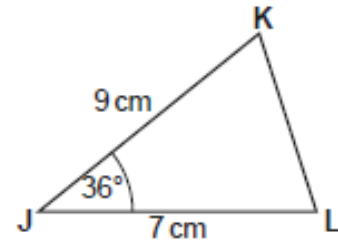
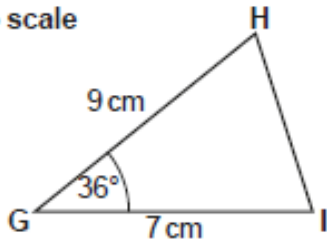
.....

.....

..... [1]

- (b) Prove that these two triangles are congruent.

Not to scale



.....

.....

.....

.....

..... [3]

Total Marks for Question Set 4: 50

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