

AQA Mock Test Papers Paper1-Test2

GCSE Mathematics

Foundation tier -- Paper1



| You must not use a calculator | |
|-------------------------------|-----|
| For this paper you must have: | |
| ☐ mathematical instruments. | |
| ☐ Formula sheet (enclosed) | 400 |

Morning

1 hour 30 minutes

Instructions

Use black ink or black ball-point pen.

Draw diagrams in pencil. Fill in the boxes at the bottom of this page. Answer all questions.

You must answer the questions in the spaces provided.

Do not write outside the box around each page or on blank pages.

Do all rough work in this book.

In all calculations, show clearly how you work out your answer.

Information

The marks for questions are shown in brackets.

The maximum mark for this paper is 80.

You may ask for more answer paper, graph paper and tracing

These must be tagged securely to this answer book.

Advice

In all Calculations, show clearly how you workout your answer

| Centre number recognition. | recognition. Candidate number | | | |
|----------------------------|-------------------------------|--|--|--|
| Surname Forename(s) | | | | |
| | | | | |
| Candidate signa | ature | | | |

| Answer | ~ 11 | auestions | in | the | snaces | provided. |
|--|-----------|-----------|----|------|--------|-----------|
| / \l \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | all | questions | | LIIC | Spaces | provided. |

Circle the value of 57 + 86

[1 mark]

97

117

125

143

2 A circle has diameter 20 cm

Circle the radius.

[1 mark]

5 cm

10 cm

20 cm

100 cm

Circle the percentage that is between $\frac{1}{2}$ and $\frac{3}{4}$

[1 mark]

40%

60%

80%

90%

| 4 | Circle the length of ti | me between 2.00 pm | n and 4.05 pm | | [1 mark] | Do not w outside t box |
|---|-------------------------|--------------------|-----------------|---------|-----------|------------------------------|
| | 55 min | 65 min | 105 min | 125 min | [Fillark] | |
| 5 | Simplify fully | 9a +8b + 3a - 4b | | | [2 marks] | |
| | | Answer | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | Turn over | for the next qu | estion | | |
| | | rum över | ioi the next qu | ESUOTI | | 6 |

The two-way table shows the numbers of cars and vans that are crushed or saved for spare parts.

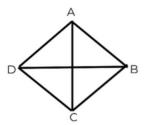
| | Crushed | Spare parts |
|------|---------|-------------|
| Cars | 15 | 24 |
| Vans | 7 | 12 |

| 6 | (a) | State the number of i) cars that are crushed Answer | [2 marks] |
|---|-----|---|-----------|
| | | ii) vans that are saved for spare parts. | |
| | | Answer | |
| 6 | (b) | Calculate the total number of i) Cars Answer | [2 marks] |
| | | ii) Crushed vehicles. Answer | |

| 2 of the FO shiples are sold | |
|---|-----------|
| $\frac{2}{5}$ of the 50 chickens are sold | |
| and | |
| 3 | |
| 3 of the 120 ducks are sold. | |
| 4 | |
| Work out the total number of animals that are sold. | [3 marks] |
| | [5 marks] |
| | |
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| | |
| Answer | |
| | |
| | |
| | |
| In a survey about favorite movie genres, | |
| 72% of people said they prefer Comedy, | |
| | |
| 15% said they prefer Drama, | |
| 15% said they prefer Drama, and the rest said they prefer Science Fiction. | |
| and the rest said they prefer Science Fiction. | |
| | [2 marks] |
| and the rest said they prefer Science Fiction. | [2 marks] |
| and the rest said they prefer Science Fiction. | [2 marks] |
| and the rest said they prefer Science Fiction. | [2 marks] |
| and the rest said they prefer Science Fiction. | [2 marks] |
| and the rest said they prefer Science Fiction. What percentage of people said they prefer Science Fiction? | [2 marks] |
| and the rest said they prefer Science Fiction. What percentage of people said they prefer Science Fiction? | [2 marks |

Calculate the perimeter and area of shape. State the units of your answers. 9 (a) 5cm 4cm 8cm 8cm Work out the area of the rectangle. [2 marks] cm2 Answer The area of the shape is 120mm^2 . Calculate the unknown lengths. 9 (b) [2 marks] ? mm 15mm Answer mm

9 (c) Find the area of the rhombus.



[1 mark]

Answer _____ mm

10 Here is a calculation.

$$458 \times 50 = 22900$$

Use the calculation to help answer the following questions.

10 (a) Write down the answer to 22900 ÷ 458

[1 mark]

Answer

10 (b) Circle the answer to 217×20

[1 mark]

4340 3210 6420 25 680

7

Turn over ▶

| 11 11 (a) | E | ara buys a pack of pens. The total co each pen in the pack costs £3. Vork out how many pens Lara buys | st of the pack is £45. | | Do not write outside the box |
|--------------|---|---|------------------------|-----------|------------------------------------|
| | | | | [2 marks] | |
| | | Answer uses all the pens she bought to prepa | | | |
| | | | | [3 marks] | |
| | | Answer | | | |

11 (c) The shop also sells magazines for £4.50 each. The shop has this offer.



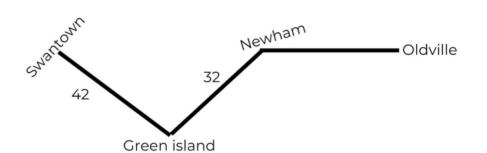
Work out the cost of 4 magazines using the offer.

[3 marks]

Answer £

8

Here is a route map between four towns. The distances, in kilometres, between some of the towns are shown on the map.



Not drawn accurately

12 (a) The distance from Swantown to Oldville is 95 Kilometres.

Workout the distance from Newham to Oldville

[3 marks]

| Angwar | km |
|--------|----|

| 12 | (b) | Complete the distance chart below to show the distances between the towr |
|----|-----|--|
| 12 | (0) | |

| Swantown | | | |
|----------|--------------|--------|----------|
| 42 | Green island | | |
| | 32 | Newham | |
| | | | Oldville |

| [3 | marks] |
|----|----------|
| L | 11101110 |

13 Ethan tries to simplify ab×3. Here is his method:

$$a \times 3 = 3a$$

 $b \times 3 = 3b$

$$3a \times 3b = 9ab$$

What is wrong with his method?

[1 mark]

.

| swer as a decimal. | [4 r |
|--------------------|------|
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| Answer | |
| 71137001 | |
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| 15 | (a) | Solve | 17x - 3 = | 7x + 7 |
|----|-----|-------|-----------------|--------|
| 10 | (4) | JOLVE | 1 // 0 - | // / / |

[3 marks]

15 (b) Solve $\frac{3x}{5} = 15$

[2 marks]

X = _____

| 16 | Bag A and bag B each contain only red balls and green balls. | | | | |
|--------|--|------------|---|-----------|--|
| | | Bag A | Contains 28 red balls There are twice as many red balls as green balls | | |
| | | Bag B | Contains 20 green balls There are 3 red balls for every 5 green balls | | |
| 16 (a) | Work out th | ne tota nu | mber of balls . | [3 marks] | |
| | | | | | |
| | | | | | |
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| | | | | | |

| The | nt bag, C, is empty 28 red balls from en balls from B are | A are put into C. The | e 20 | | |
|-----------------------|---|-----------------------|------|-------|-----------|
| One ball | is now picked at ra | andom from each ba | g. | | |
| Complete | e each statement. | | | | [3 marks] |
| | | | | | |
| | The prob | ability of red from A | is | | |
| | The prob | ability of red from B | is | | |
| | The prob | ability of red from C | is | | |
| What is Circle you | 1 as a decimal? 15 ur answer. | • | | | [1 mark] |
| | 0.05 | 0.067 | 0.06 | 0.005 | [|
| | | | | | |

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| 18 | Divide 369kg in the ratio 7 | [3 marks] |
|----|---|-----------|
| | Answer and | |
| 19 | Find the first three terms and the 10th term of the sequence with general term 3n+2 | [2 marks] |
| | | |
| | | |

The table shows information about the number of hours 40 children watched television one evening.

| Number of hours (h) | Frequency |
|--------------------------------------|-----------|
| 0 _{<t< sub=""> < 1</t<>} | 3 |
| 1 _{≤t} < 2 | 8 |
| 2 _{≤t} < 3 | 7 |
| 3 _{≤t} < 4 | 10 |
| 4 ^{≤t} < 5 | 12 |

| a) Workout an estimate for | or the mean number of hours |
|----------------------------|-----------------------------|
|----------------------------|-----------------------------|

[3 marks]

| Answer | | | | |
|--------|--------|--|--|--|
| | Answer | | | |

Turn over for the next question

8

Given the vectors: $a = \begin{bmatrix} 2 \\ 3 \end{bmatrix}$ and $b \begin{bmatrix} 1 \\ 5 \end{bmatrix}$

Draw and label the following vectors from the origin on the axes below:

._!

- 1) 2*a*
- 2) a + b
- 3) 4a 2b

8 7 6 5 4 3 2 1

6

5

7

[4 marks]

0

2

1

3

| 22 | Work out $\left[\frac{5}{12} - \frac{1}{8}\right] \div \frac{3}{4}$ Give your answer as a fraction. | [3 marks] | Do not write outside the box |
|----|---|-----------|------------------------------------|
| | | | |
| | | | |
| | | | |
| | Answer | | |
| 23 | Solve the inequality −10<3y+2≤14 for all integer values of y. | [2 marks] | |
| | | | |
| | Answer | | 9 |

| 24 | In a company there are 110 workers. |
|----------------|-------------------------------------|
| Z 4 | in a company mere are 110 workers. |
| | |

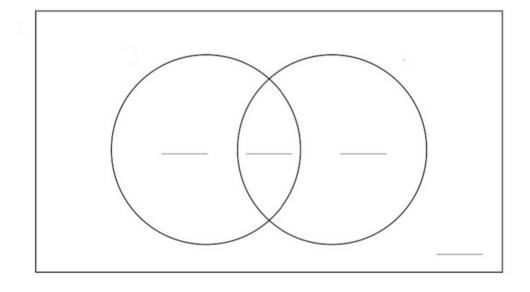
90 workers like tea.

41 workers like coffee.

25 workers like both tea and coffee.

Work out how many workers like neither tea or coffee

[3 marks]





| 25 | Write | 625:25 | in the form $n:1$ wh | nere <i>n</i> is an integer. | | [3 marks] |
|----|-------|-----------------------------|-----------------------|------------------------------|------|-----------|
| | | | | | | |
| | | | Answer | :1 | | |
| 26 | | more than b . ratio $a:b$ | | | | [1 mark] |
| | | 10:11 | 10:1 | 11:10 | 1:10 | |
| | | | | | | |
| | | | | | | |
| | | Т | urn over for the next | : question | | |
| | | | | | | |

| 27 | Work out the size of angle P . | | D |
|----|--------------------------------|-------------------------|---|
| | 9 cm | Not drawn accurately | |
| | | [3 marks] | |
| | | | |
| | | | |
| | | | |
| | Answerdegrees | | |
| | | | |
| | | | |
| | | | |

END OF QUESTIONS

Prepare 4 GCSEs