

# Edexcel GCSE

## Mathematics (Linear) – 1MA0

# QUESTIONNAIRE

### Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.  
Tracing paper may be used.



### Instructions

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Use black ink or ball-point pen.

Fill in the boxes at the top of this page with your name, centre number and candidate number.

Answer all questions.

Answer the questions in the spaces provided – there may be more space than you need.

Calculators may be used.

### Information

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The marks for each question are shown in brackets – use this as a guide as to how much time to spend on each question.

Questions labelled with an asterisk (\*) are ones where the quality of your written communication will be assessed – you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.

### Advice

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Read each question carefully before you start to answer it.

Keep an eye on the time.

Try to answer every question.

Check your answers if you have time at the end.

### Notes:

1. Make sure that your questions include a **TIME FRAME**; e.g. Day, Week, Month...
2. Always have an option for **ZERO** or **NONE**
3. **DO NOT** have **OVERLAPPING INTERVALS**
4. Include at least 4 tick boxes
5. Your last interval should be: **More than .....**

1. Sam wants to find out the types of film people like best.

He is going to ask whether they like comedy films or action films or science fiction films or musicals best.

(a) Design a suitable table for a data collection sheet he could use to collect this information.

Genre	Tally	Total
Comedy Films		
Action Films		
Science Fiction Film		
Musicals		

(2)

Sam collects his data by asking 10 students in his class at school.  
This might not be a good way to find out the types of film people like best.

(b) Give one reason why.

° 10 people is not enough

° All same age / same class

(1)

(3 marks)

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2. Alison wants to find out how much time people spend reading books.  
She is going to use a questionnaire.

Design a suitable question for Alison to use in her questionnaire.

How much time do you spend reading books  
a week?

0  
hours

1-2  
hours

3-4  
hours

5 or more  
hours

(2 marks)

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3. Pradeep wants to find out how much time people spend playing sport. He uses this question on a questionnaire.

How much time do you spend playing sport?

                                             
 0 – 1 hours      1 – 2 hours      3 – 4 hours

- (a) Write down two things wrong with this question.

1. there is no time scale

2. there is overlap

3. there is no option for more than 4 hours

(2)

- (b) Design a better question for Pradeep's questionnaire to find out how much time people spend playing sport.

How much time do you spend playing sport a week?

                                                                   
 0                      1-2                      3-4                      5 or more  
 hours                      hours                      hours                      hours

(2)

(4 marks)

4. Guy wants to find out how much time people spend watching television. He will design a questionnaire.

Design a suitable question for Guy's questionnaire.

How much time do you spend watching television a week?

                                                                   
 0                      1-3                      4-6                      7 or more  
 hours                      hours                      hours                      hours

(2 marks)

5. Paula wants to find out how much money people spend buying CDs.

She uses this question on a questionnaire.

How much money do you spend buying CDs?

£10 – £30     £30 – £50     £50 – £70     more than £70

(a) Write down two things wrong with this question.

1 ..... there is no time scale .....

2 ..... there is overlap at £30 and £50 .....

3 ..... there is no option for less than £10 .....

(2)

Paula asks 100 people in a CD store to do her questionnaire.

(b) Her sample is biased.  
Explain why.

..... people in a CD store are more likely  
to spend money on CDs .....

(1)

(3 marks)

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6. The manager of a department store has made some changes.  
She wants to find out what people think of these changes.  
She uses this question on a questionnaire.

“What do you think of the changes in the store?”

  
Excellent  
Very good  
Good

(a) Write down what is wrong about this question.

..... there are no negative options .....

.....

.....

(1)

This is another question on the questionnaire.

“How much money do you normally spend in the store?”

  
A lot  
Not much

(b) Write down one thing that is wrong with this question.

..... there should be tick boxes. A lot, and .....

..... not much mean different things to different .....

..... people .....

(1)

(Total 2 marks)

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7. The local council is planning to build a new swimming pool.

The councillors want to get the views of the local people.

Councillor Smith suggests taking a sample from the people who attend the local sports centre.

(a) Explain why this would not be a good sample.

.....the people who attend the sports  
.....centre may not represent all people  
.....

(1)

Councillor Singh suggests taking a simple random sample of 100 people.

(b) Describe how the council could take a simple random sample.

.....assign each person a number, then  
.....use a random number generator  
.....

(1)

The council decided to use a questionnaire to find out how often people would use the swimming pool.

(c) Design a question the council could use on their questionnaire.

How many times do you use the  
swimming pool a month?

0

1-3

4-6

7-9

10 or  
more

(1)

(Total 4 marks)

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8. Gordon is going to open a restaurant.  
 He wants to know how often people eat out at a restaurant.  
 He designs a questionnaire.  
 He uses this question on a questionnaire.

"How often do you go to a restaurant?"

Never

Sometimes

Often

(a) Write down two things that are wrong about this question.

1. .... *there is no time scale* .....

2. .... *'Never', 'Sometimes' and 'Often' mean different things to different people* .....

(2)

(b) Design a more suitable question Gordon could use to find out how often people eat out at a restaurant.

*How many times do you eat out at a restaurant a month?*

  
    
    

0            1-3            4-6            7 or more

(2)

Gordon asks his family "Do you agree that pizza is better than pasta?"

This is not a good way to find out what people who might use his restaurant like to eat.

(c) Write down two reasons why this is not a good way to find out what people who might use his restaurant like to eat.

1st reason .... *Leading Question → he shouldn't say "do you agree"* .....

2nd reason .... *He is only giving option of pizza and pasta* .....

(2)

(Total 6 marks)

9. Gary wants to find out how much time teenagers spend listening to music. He uses this question on a questionnaire.

How many hours do you spend listening to music?			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1 to 5	5 to 10	10 to 20	over 20

- (a) Write down two things wrong with this question.

1 ..... there is no time scale .....

2 ..... there is overlap 5 and 10 are listed twice .....

- (b) Design a better question for Gary's questionnaire to find out how much time teenagers spend listening to music. (2)

*How many hours do you spend listening to music a week?*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	1-5	6-10	11-15	16 or more

(Total 4 marks)

10. Sophie wants to find out the amount of time people exercise. She will use a questionnaire.

- (a) Design a suitable question for Sophie to use in her questionnaire. You must include some response boxes.

*How much time do you spend exercising a week?*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0 hours	1-2 hours	3-4 hours	5 or more hours

(2)

Sophie asks the people at her swimming pool to complete her questionnaire. This may not be a suitable sample.

- (b) Give a reason why.

..... people at the swimming pool will not represent all people .....

(1)

(Total 3 marks)