## Edexcel GCSE

Mathematics (Linear) - 1MA0

## METRIC \& IMPERIAL

## MEASURES

## Materials required for examination

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

## Instructions

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

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

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.

1. Complete this table.

Write a sensible unit for each measurement.

2. Complete this table.

Write a sensible unit for each measurement.

|  | Metric | Imperial |
| :--- | :---: | :---: |
| The weight of a turkey | $\ldots \ldots \ldots \ldots \ldots \ldots .$. | pounds |
| The volume of water in a <br> swimming pool | $\ldots \ldots \ldots \ldots \ldots \ldots$. | gallons |
| The width of this page | centimetres | $\ldots \ldots \ldots \ldots \ldots \ldots$ |

3. Complete this table by writing a sensible unit for each measurement.

|  | Metric | Imperial |
| :---: | :---: | :---: |
| The height of a door | $\ldots . . . . . . . . . . . . . . . . . . . . ~$ | feet |
| The weight of a man | kilograms | $\ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . .$. |
| The volume of water <br> in a bucket | $\ldots . . . . . . . . . . . . . . . . . . . ~$ | gallons |

4. (a) Write down a sensible metric unit that can be used to measure
(i) the height of a tree,
(ii) the weight of a person.
(b) Change 2 centimetres to millimetres.
millimetres
5. (a) Write down the name of a sensible metric unit that can be used to measure
(i) the weight of a grape,
(ii) the diameter of a CD.
(2)
(b) Change 7 kilometres to metres. m
6. (a) Write down the name of the metric unit used to measure
(i) the weight of a man,
(ii) the distance from New York to London.
$\qquad$
(b) Change 4 metres to centimetres.
(c) Change 9000 millilitres to litres.
$\qquad$
7. (a) (i) Change 5.6 metres to centimetres.
(ii) Change 6700 millilitres to litres.
$\qquad$
(b) Write down the name of the metric unit which is usually used to measure the weight of a person.
8. (a) Write down a sensible metric unit that should be used to measure
(i) the height of a school hall,
(ii) the weight of a pencil.
(b) Write down a sensible imperial unit that should be used to measure the distance between London and Manchester.
$\qquad$
9. (a) Write down a sensible metric unit for measuring
(i) the distance from London to Paris,
(ii) the amount of water in a swimming pool.
$\qquad$
(b) (i) Change 5 centimetres to millimetres.
$\qquad$
(ii) Change 4000 grams to kilograms.
$\qquad$
10. (a) Complete the table by writing a sensible metric unit on each dotted line.

The first one has been done for you.

| The distance from London to Birmingham | 179 kilometres |
| :---: | :---: |
| The weight of a twenty pence coin | $5 \ldots \ldots \ldots \ldots \ldots \ldots \ldots . .$. |
| The height of the tallest living man | $232 \ldots \ldots \ldots \ldots \ldots \ldots \ldots .$. |
| The volume of lemonade in a glass | 250 ............... |

(b) Change 5000 metres to kilometres.
11. (a) Complete this table.

Write a sensible unit for each measurement.
Three have been done for you.

|  | Metric | Imperial |
| :--- | :---: | :---: |
| The length of your finger | $\ldots \ldots . . . . . . . . . . . . . . . . . ~$ | inches |
| The distance between America and England | kilometres | $\ldots . . . . . . . . . . . . . . . . . . . . . . ~$ |
| The amount of petrol in a petrol tank | $\ldots \ldots . . . . . . . . . . . . . . . . . ~$ | gallons |

(3)
(b) Change 3 metres to centimetres.
cm
(c) Shalim says 1.5 km is less than 1400 m .

Is he right?
Explain your answer.
$\qquad$
$\qquad$
12. (a) Write down the name of a metric unit which is used to measure
(i) the distance from London to Brighton,
(ii) the weight of a bar of soap.
$\qquad$
(b) (i) Change 240 millimetres to centimetres.
(ii) Change 3.8 litres to millilitres.
13. (a) Complete this table.

Write a sensible unit for each measurement.
Three have been done for you.

|  | Metric | Imperial |
| :---: | :---: | :---: |
| Distance from London to Cradiff | km | $\ldots \ldots \ldots \ldots$ |
| Weight of a bag of potatoes | $\ldots \ldots \ldots \ldots$ | pounds |
| Volume of fuel in a car's fuel tank | $\ldots \ldots \ldots \ldots$ | gallons |

(b) Here is a picture of a woman opening a door that is 2 m high.

Estimate the height of the woman.

$\qquad$
m
14. (a) Complete the table by writing a sensible metric unit for each measurement. The first one has been done for you.

| The length of the river Nile | 6700 | ............kilometres........... |
| :---: | :---: | :---: |
| The height of the world's tallest tree | 110 | ................................. |
| The weight of a chicken's egg | 70 | ................................. |
| The amount of petrol in a full petrol tank of a car | 40 | ... |

(b) Change 4 metres to centimetres.
(c) Change 1500 grams to kilograms.
15. Write down a sensible metric unit for each measurement.
(i) The weight of a pair of sunglasses.
(ii) The height of a house.
(iii) The volume of toothpaste in a tube of toothpaste.
16. Complete this table.

Write a sensible unit for each measurement.

|  | Metric | Imperial |
| :--- | :---: | :---: |
| The weight of a bicycle | $\ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ | pounds |
| The volume of water in a watering can | $\ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ | pints |
| The length of this page | centimetres | $\ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . ~$ |

17. 



The diagram shows a man standing next to a lamppost.
The man is of normal height.
(a) Write down an estimate for the height, in metres, of the man.
(b) Estimate the height, in metres, of the lamppost.
18. (a) Complete this table.

Write a sensible unit for each measurement.

|  | Metric | Imperial |
| :--- | :---: | :---: |
| Diameter of a football | $\ldots \ldots . . . . . . . . . . . . . . . . . . . ~$ | inches |
| Amount of fuel in a car fuel tank | litres | $\ldots$ |

(b) (i) Change 4 kg to grams.
(ii) Change 3500 ml to litres.
19.


The diagram shows a building and a man.
The man is of normal height.
The man and the building are drawn to the same scale.
(a) Write down an estimate for the height of the man.
(b) Write down an estimate for the height of the building.
$\qquad$
20. Complete this table.

Write a sensible unit for each measurement.

|  | Metric | Imperial |
| :--- | :---: | :---: |
| The weight of a chicken | $\ldots \ldots \ldots \ldots \ldots \ldots \ldots$ | pounds |
| The volume of water in a <br> petrol tanker | $\ldots \ldots \ldots \ldots \ldots \ldots$. | gallons |
| The length of a finger | centimetres | $\ldots \ldots \ldots \ldots \ldots \ldots$ |

21. 



The picture shows a man standing next to a flagpole.
The man is of normal height.
The man and the flagpole are drawn to the same scale.
(a) Write down an estimate for the height, in metres, of the man.
(b) Work out an estimate for the height, in metres, of the flagpole.
22. (a) Write down a sensible metric unit for measuring
(i) the distance from London to Birmingham,
(ii) the weight of a pencil.
(b) (i) Change 7 centimetres to millimetres.
$\qquad$
(ii) Change 4500 grams to kilograms.
23.


The diagram shows a man and a bus.
The man and the bus are drawn to the same scale.
The man is of average height.
(i) Write down an estimate for the height of the man.
(ii) Find an estimate for the length of the bus.
24. (a) Write a sensible unit for each measurement.

|  | Metric | Imperial |
| :--- | :---: | :---: |
| The weight of a man | $\ldots \ldots \ldots \ldots \ldots \ldots$. | pounds |
| The volume of water in a <br> bath | $\ldots \ldots \ldots \ldots \ldots \ldots$. | gallons |
| The length of an arm | centimetres | $\ldots \ldots \ldots \ldots \ldots \ldots$. |

(b) Change 6.8 metres to centimetres.
cm
(c) Change 7500 grams to kilograms. kg

## NOTES

## DISTANCE

| METRIC |  | IMPERIAL |
| :--- | :--- | :--- |
| Kilometres $\quad \mathbf{~ k m ~}$ | Miles |  |
| Metres | $\mathbf{m}$ | Yards |
| Centimetres | $\mathbf{c m}$ | Feet |
| Millimetres | $\mathbf{m m}$ | Inches |

$$
\begin{aligned}
>1 \mathrm{~km} & =1000 \mathrm{~m} \\
>1 \mathrm{~m} & =100 \mathrm{~cm} \\
>1 \mathrm{~cm} & =10 \mathrm{~mm}
\end{aligned}
$$

## WEIGHT

| METRIC |  |
| :--- | :--- |
| Kilograms $\quad \mathbf{k g}$ | Ton |
| Grams $\quad \mathbf{g}$ | Stone |
| Milligrams $\quad \mathbf{~ m g}$ | Pounds |
|  | Ounces |

$>1 \mathrm{~kg}=1000 \mathrm{~g}$
$>1 \mathrm{~g}=1000 \mathrm{~g}$

## CAPACITY / VOLUME

| METRIC |  |
| :--- | :--- |
| Litres $\quad \boldsymbol{l}$ | IMPERIAL |
| Millilitres $\quad \boldsymbol{m l}$ | Gallons |

$>1 l=1000 \mathrm{ml}$

