Edexcel GCSE
Mathematics (Linear) – 1MA0

POWERS, ROOTS & BIDMAS

Materials required for examination	**Items included with question papers**
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser. Tracing paper may be used.	Nil

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.
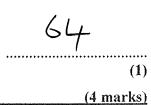Keep an eye on the time.
Try to answer every question.
Check your answers if you have time at the end.

1. (a) Work out $4 \times 3 + 2$

$\underline{12} + 2$

14 ....

(1)

(b) Work out $20 - 12 \div 4$

$20 - \underline{3}$

17 ....

(1)

(c) Work out $(18 \div 3) + (20 \div 5)$

$\underline{6} + \underline{4}$

10 ....

(1)

(d) Work out $(3 + 5)^2$

8^2

64 ....

(1)

(4 marks)

2. Work out

(i) $\dfrac{3 \times 3 - 5}{}$

$\underline{9} - 5$

4 ....

(ii) $20 \div (12 - 2)$

$20 \div \underline{10}$

2 ....

(iii) $7 + 8 \div 4$

$7 + \underline{2}$

9 ....

(3 marks)

3. Beth says $20 - 5 \times 3$ is 45

Pat says $20 - 5 \times 3$ is 5

(a) Who is right?
     Give a reason for your answer.

$20 - 5 \times 3$ "x" befor "−"

$20 - 15 = 5$

Pat is right

..................Pat.................. is right

(2)

(b) Work out $(12 + 9) \div 3$

$21 \div 3$

.............7.............

(1)

(3 marks)

4. (a)   Work out the value of

   (i)   the square of 6

36

   (ii) 2^4

16

(2)

(b) Work out the value of

   (i) $-10 \div 5$

−2

   (ii) -3×-4

12

(2)

(4 marks)

5. (a) Work out $2 \times (11 + 9)$

2×20

40 ....

(1)

(b) Work out $3 \times 5 + 4$

$15 + 4$

19 ....

(1)

(c) Work out $20 - 5 \times 3$

$20 - 15$

5 ....

(1)

(3 marks)

6. (a) Work out the value of $(4 + 5) \times 2 + 3$

$9 \times 2 + 3$

$18 + 3$

21 ....

(1)

(b) Add brackets ( ) to make each statement correct.
You may use more than one pair of brackets in each statement.

(i) $4 + 5 \times (2 + 3) = 29$

(ii) $(4 + 5) \times (2 + 3) = 45$

(2)

(3 marks)

7.   (a)   Work out the value of $(2 + 3) \times 4 + 5$

$5 \times 4 + 5$

$20 + 5$

25

(1)

   (b)   Add brackets ( ) to make each statement correct.
         You may use more than one pair of brackets in each statement.

   (i) $2 + (3 \times 4) + 5 = 29$

   (ii) $(2 + 3) \times (4 + 5) = 45$

(2)
(3 marks)

8.   Work out

   (i) $2 \times 3 + 4$

$12 + 4$

16

   (ii) $3 + 5 \times 2$

$3 + 10$

13

   (ii) $16 \div (2 \times 4)$

$16 \div 8$

2
(3 marks)

9. (a) Work out

$$\frac{-8 \times -3}{-6} = \frac{24}{-6}$$

$$-4$$

(1)

(b) Work out

$$\frac{33 \times 10 - 6 \times 5}{}$$

$$330 - 30$$

$$300$$

(2)

(c) Work out

$$6 + 2 \times (5 - 1)$$

$$6 + 2 \times 4$$

$$6 + 8$$

$$14$$

(2)

(5 marks)

10. Frankie says that $\quad 15 - 3 \times 2 = 24$

Frankie is wrong.
Explain why.

'x' befor '-' $15 - 3 \times 2$

$= 15 - 6$

$= 9$

(3 marks)

11. (a) Work out $4 \times 5 - 8$

$20 - 8$

................12................ **(1)**

(b) Work out $18 + 2 \times 3$

$18 + 6$

................24................ **(1)**

(c) Work out $7 + 3 \times 5$

$7 + 15$

................22................ **(1)**

(d) Work out $13 - 3 \times 4 + 2$

$13 - 12 + 2$

................3................ **(1)**

(e) Work out $(4 + 3) \times 7$

7×7

................49................ **(1)**

(e) Work out $20 - (4 + 10)$

$20 - 14$

................6................ **(1)**

(6 marks)

12. (a)   Write down the value of $\sqrt{81}$

9

(1)

(b)   Work out the value of $5^2 + 2^3$

$25 + 8$

33

(2)

(3 marks)

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13. (a)   Work out the value of $(9 + 2) \times 6 - 3$

$11 \times 6 - 3$

$66 - 3$

63

(1)

(b)   Add brackets ( ) to make each statement correct.
You may use more than one pair of brackets in each statement.

(i) $9 + (2 \times 6) - 3 = 18$

(ii) $9 + 2 \times (6 - 3) = 15$

(2)

(3 marks)