FOUNDATION

1.10 BIDMAS: 1-hour Pack

EDEXCEL 1MA1 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Work out 20 + 5 x 9

(Total for Question 1 is 2 marks)

2 Here is a calculation: 9 - 6 x 2 = 6. Put one pair of brackets into the left-hand side to make the calculation correct.

(Total for Question 2 is 2 marks)

3 Work out $14 + 3^2 \times 2 - 2$

(Total for Question 3 is 3 marks)

4 Work out 7 x 3 + 2

(Total for Question 4 is 2 marks)

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5 Work out 3 x (17 - 9) + 2

(Total for Question 5 is 3 marks)

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6 Here is a calculation: 5 - 4 x 4 = 4. Put one pair of brackets into the left-hand side to make the calculation correct.

(Total for Question 6 is 2 marks)

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7 Work out (6 + 4) x 3

(Total for Question 7 is 1 mark)

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8 Work out 11 x 2 + 9

(Total for Question 8 is 2 marks)

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9 Here is a calculation: 10 - 7 x 3 = 9. Put one pair of brackets into the left-hand side to make the calculation correct.

(Total for Question 9 is 2 marks)

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10 Work out (2 + 12) x 6 - 5

(Total for Question 10 is 3 marks)

11 Work out 11 - 4 x 2

(Total for Question 11 is 2 marks)

12 Work out $12 + 6^2 \times 4 - 3$

(Total for Question 12 is 3 marks)

13 Work out 110 - 7 x 8

(Total for Question 13 is 2 marks)

14 Work out $4 + 6^2 \times 4 - 3$

(Total for Question 14 is 3 marks)

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15 Work out 10 x 9 + 2

(Total for Question 15 is 2 marks)

16 Work out $3^2 + 4$

(Total for Question 16 is 1 mark)

17 Work out 6 x (5 - 2)

(Total for Question 17 is 1 mark)

18 Insert one pair of brackets into 12 - 4 x 2 + 6 to make the calculation equal to 22.

(Total for Question 18 is 2 marks)

19 A stationery shop sells notebooks at £3 each and pens at £1 each. Aaliyah buys 4 notebooks and 5 pens, and pays with a £20 note. Work out how much change Aaliyah receives.

(Total for Question 19 is 3 marks)

20 Show that $(4 + 2^3) / (3 - 1) = 6$.

(Total for Question 20 is 4 marks)

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Mark scheme · 1.10 BIDMAS: 1-hour Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

multiplication done before addition or subtraction	**M1**
65 cao	**A1**

Answer: 65

Question 2

tries brackets round the first two numbers	**M1**
(9 - 6) x 2 = 6	**A1**

Answer: (9 - 6) x 2

Question 3

$3^2 = 9$ seen	**M1**
9 x 2 = 18 seen	**M1**
30 cao	**A1**

Answer: 30

Question 4

multiplication done before addition or subtraction	**M1**
23 cao	**A1**

Answer: 23

Question 5

brackets evaluated first	**M1**
next operation correct	**M1**
26 cao	**A1**

Answer: 26

Question 6

tries brackets round the first two numbers	**M1**
(5 - 4) x 4	**A1**

Answer: (5 - 4) x 4

Question 7

30 cao	**B1**

Answer: 30

Question 8

multiplication done before addition or subtraction	**M1**
31 cao	**A1**

Answer: 31

Question 9

tries brackets round the first two numbers	**M1**
(10 - 7) x 3 = 9	**A1**

Answer: (10 - 7) x 3

Question 10

brackets evaluated first	**M1**
next operation correct	**M1**
79 cao	**A1**

Answer: 79

Question 11

multiplication done before addition or subtraction	**M1**
3 cao	**A1**

Answer: 3

Question 12

$6^2 = 36$ seen	**M1**
36 x 4 = 144 seen	**M1**
153 cao	**A1**

Answer: 153

Question 13

multiplication done before addition or subtraction	**M1**
54 cao	**A1**

Answer: 54

Question 14

$6^2 = 36$ seen	**M1**
36 x 4 = 144 seen	**M1**
145 cao	**A1**

Answer: 145

Question 15

multiplication done before addition or subtraction	**M1**
92 cao	**A1**

Answer: 92

Question 16

13 cao	**B1**

Answer: 13

Question 17

18 cao	**B1**

Answer: 18

Question 18

correct trial of a bracket placement shown, e.g. (12 - 4) x 2 + 6	**M1**
(12 - 4) x 2 + 6 written, oe, cao	**A1**

Answer: (12 - 4) x 2 + 6

Question 19

4 x 3 = 12 (cost of notebooks) or 5 x 1 = 5 (cost of pens) seen	**M1**
total cost 12 + 5 = 17 (or 20 - 17 attempted)	**M1**
3 cao	**A1**

Answer: £3

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Question 20

evaluate $2^3 = 8$	**M1**
add 4 + 8 = 12 (numerator)	**M1**
evaluate denominator 3 - 1 = 2	**M1**
6 cso	**A1**

Answer: 6

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