FOUNDATION

1.2 Multiplication and Division: Test Pack

EDEXCEL 1MA1 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 389 sweets are shared equally between 8 children. Work out how many each child gets and how many are left over.

(Total for Question 1 is 3 marks)

2 A school trip has 557 people. Each coach holds 36 people. Work out the smallest number of coaches needed.

(Total for Question 2 is 3 marks)

3 Work out 839 x 25

(Total for Question 3 is 3 marks)

4 Work out 391 x 36

(Total for Question 4 is 3 marks)

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5 Kira books 12 concert tickets at £9 each. There is a booking fee of £4 for the whole order. Work out the total cost.

(Total for Question 5 is 3 marks)

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6 Work out 23 x 4.

(Total for Question 6 is 1 mark)

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7 Work out 46 x 3.

(Total for Question 7 is 1 mark)

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8 Work out 432 ÷ 8.

(Total for Question 8 is 1 mark)

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9 Calculate 175 x 4.

(Total for Question 9 is 1 mark)

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10 Work out 306 x 7.

(Total for Question 10 is 2 marks)

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11 A baker fills trays that hold 24 buns. She has 1864 buns. How many full trays can she fill and how many buns are left over?

(Total for Question 11 is 2 marks)

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12 A student calculates 384 x 6 and writes:

384 x 6 = 2504

Identify the mistake in the calculation and write down the correct answer.

(Total for Question 12 is 2 marks)

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13 Show that 27 x 24 = 648.

(Total for Question 13 is 2 marks)

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14 Divide 997 by 9. Express your answer in three ways: (i) as a quotient with remainder, (ii) as a mixed number, (iii) as a decimal rounded to 3 decimal places.

(Total for Question 14 is 3 marks)

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15 Use long division to work out 9876 ÷ 12.

(Total for Question 15 is 3 marks)

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16 A factory packs 4598 widgets into boxes holding 36 widgets each.

(a) How many full boxes are there and how many widgets are left over? **(2)**

.....

(b) If the factory needs enough boxes so that every widget is in a box (partial boxes allowed), how many boxes are needed in total? **(2)**

.....

(Total for Question 16 is 4 marks)

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17 A 45.6 m length of rope is cut into 8 equal pieces. Work out the length of each piece.

(Total for Question 17 is 2 marks)

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18 Calculate 732 x 45 using a written method.

(Total for Question 18 is 3 marks)

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19 A printing press prints 480 leaflets every 15 minutes, running at a constant rate. Work out how many leaflets it prints in 7 hours.

(Total for Question 19 is 3 marks)

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Mark scheme · 1.2 Multiplication and Division: Test Pack

Question 1

divides 389 by 8	M1
48 each	A1
5 left over	B1

Answer: 48 each and 5 left over

Question 2

557 / 36	M1
15.47 or 'between 15 and 16'	A1
16 coaches	B1

Answer: 16

Question 3

method for multiplying, e.g. partial products or grid, with at most one arithmetic error	M1
complete method with all parts added	M1
20975 cao	A1

Answer: 20975

Question 4

method for multiplying, e.g. partial products or grid, with at most one arithmetic error	M1
complete method with all parts added	M1
14076 cao	A1

Answer: 14076

Question 5

12 x 9	M1
adds 4 to the cost of the tickets	M1
£112 cao	A1

Answer: £112

Question 6

92 cao	B1

Answer: 92

Question 7

138 cao	B1

Answer: 138

Question 8

54 cao	B1

Answer: 54

Question 9

700 cao	B1

Answer: 700

Question 10

attempt to use long or column multiplication (e.g. 300 x 7 and 6 x 7 shown) oe	M1
2142 cao	A1

Answer: 2142

Question 11

correct division method or statement showing 1864 ÷ 24 = 77 remainder 16 or equivalent	M1
77 full trays and 16 buns left over cao	A1

Answer: 77 full trays, 16 buns left over

Question 12

correct recalculation shown, e.g. 384 x 6 = 2304 oe	M1
identifies the error (e.g. an incorrect carry into the hundreds column) and states the correct answer 2304 cao	A1

Answer: 2304 (the student's answer of 2504 is incorrect)

Question 13

one correct partial product shown, e.g. 27 x 20 = 540 or 27 x 4 = 108 oe	M1
both partial products shown and correctly combined to give 648 cso	C1

Answer: 648 (shown)

Question 14

correct integer quotient and remainder identified, e.g. 997 = 9 x 110 + 7 or 110 r 7	M1
mixed number 110 7/9 cao (ft from previous)	A1
decimal 110.778 cao (110.777... rounded to 3 dp)	A1

Answer: (i) 110 r 7; (ii) 110 7/9; (iii) 110.778

Question 15

correct stages of long division shown (e.g. subtract 9600 leaving 276 or equivalent)	M1
correct subsequent division step shown (e.g. 276 ÷ 12 = 23)	M1
823 cao	A1

Answer: 823

Question 16

(a) correct division showing 4598 ÷ 36 = 127 remainder 26 or equivalent	M1
(a) 127 full boxes and 26 widgets left over cao	A1

(a) Answer: 127 full boxes and 26 widgets left over

(b) recognise need to round up from 127 full boxes to include remainder	M1
(b) 128 boxes cao	A1

(b) Answer: 128 boxes

Question 17

correct method shown, e.g. 45.6 / 8 oe	M1
5.7 m cao	A1

Answer: 5.7 m

Question 18

correct first partial product, e.g. 732 x 5 = 3660 or equivalent shown	M1
correct second partial product, e.g. 732 x 40 = 29280 or equivalent shown	M1
32940 cao	A1

Answer: 32940

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Question 19

converts 7 hours to 420 minutes oe	**M1**
correct method to find the number of 15-minute intervals in 420 minutes, e.g. 420 / 15 = 28, or equivalent scaling	**M1**
13440 leaflets cao	**A1**

Answer: 13440 leaflets

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