



EP.M147 CEM Style Maths Mixed Section 2

CEM CEM-MOCK-MATHS · Calculators not allowed · about 40 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1 A loaf of bread costs £1.40. Amal buys 3 loaves and pays with a £5 note. How much change should she receive?

(Total for Question 1 is 2 marks)

- 2 Write 0.375 as a fraction in its simplest form.

(Total for Question 2 is 2 marks)

- 3 A bus journey takes 2 hours 15 minutes. Tom leaves at 08:40. At what time does he arrive?

(Total for Question 3 is 1 mark)

- 4 Multiply 24 by 15.

(Total for Question 4 is 1 mark)

- 5 A recipe needs 450 g of flour. Lara wants to make half of the recipe. How much flour should she use?

(Total for Question 5 is 1 mark)

6 Complete the sequence: 7, 10, 13, 16, __, __

(Total for Question 6 is 1 mark)

7 A pencil costs 28 pence. How many pencils can you buy with £2.80?

(Total for Question 7 is 1 mark)

8 Simplify $\frac{42}{56}$ to its lowest terms.

(Total for Question 8 is 1 mark)

9 A tank is filled at 12 litres per minute. How many litres are added in 7 minutes and 30 seconds?

(Total for Question 9 is 2 marks)

10 A rectangle has length 12 cm and width 5 cm. Find its area in cm^2 .

(Total for Question 10 is 1 mark)

11 A shop reduces the price of a jacket from £45 to £36. What is the percentage reduction to the nearest whole percent?

(Total for Question 11 is 2 marks)

12 Work out $3\frac{1}{2} + 2\frac{3}{4}$.

(Total for Question 12 is 2 marks)

13 Two numbers have a product of 168. One number is 12. What is the other number?

(Total for Question 13 is 1 mark)

14 A pack of pens weighs 240 g. What is the mass of 7 such packs in kilograms?

(Total for Question 14 is 2 marks)

15 Sanjay counts the faces on some cubes. He has 6 cubes. How many faces are there altogether?

(Total for Question 15 is 1 mark)

16 A taxi fare is £4.20 for the first kilometre and then £1.35 for each extra kilometre. What does a 5 km journey cost?

(Total for Question 16 is 2 marks)

17 A juice bottle is 1.5 litres. How many whole bottles are needed to hold 9 litres?

(Total for Question 17 is 2 marks)

18 A school orders 48 identical chairs. They are packed into boxes of 6. How many boxes are needed?

(Total for Question 18 is 2 marks)

19 A train ticket costs £12.40. Two friends share the cost equally. How much does each pay?

(Total for Question 19 is 2 marks)

20 A fruit seller has 90 apples. He packs them equally into 5 crates. How many apples are in each crate?

(Total for Question 20 is 2 marks)

21 Maya buys 3 shirts at £14.50 each and a belt for £9. What is the total cost?

(Total for Question 21 is 3 marks)

22 Express 15 minutes as a fraction of 2 hours, in lowest terms.

(Total for Question 22 is 2 marks)

23 A baker divides a batch of 56 cupcakes equally among 7 friends. How many cupcakes does each friend get?

(Total for Question 23 is 2 marks)

24 A farmer has 250 metres of fencing. He wants to make square pens each with perimeter 25 metres. How many pens can he make?

(Total for Question 24 is 2 marks)

Mark scheme · EP.M147 CEM Style Maths Mixed Section 2

Question 1

- **M1** Multiply 1.40×3 or equivalent method seen
- **A1** £0.80 cao
- **Answer: £0.80**

Question 2

- **M1** Conversion to $375/1000$ or equivalent seen
- **A1** $3/8$ in lowest terms cao
- **Answer: $3/8$**

Question 3

- **B1** 10:55 cao
- **Answer: 10:55**

Question 4

- **B1** 360 cao
- **Answer: 360**

Question 5

- **B1** 225 g cao
- **Answer: 225 g**

Question 6

- **B1** 19, 22 cao
- **Answer: 19, 22**

Question 7

- **B1** 10 cao
- **Answer: 10 pencils**

Question 8

- **B1** $3/4$ cao
- **Answer: $3/4$**

Question 9

- **M1** Use of 12 l/min and time 7.5 minutes leading to 12×7.5 or equivalent
- **A1** 90 litres cao
- **Answer: 90 litres**

Question 10

- **B1** 60 cm^2 cao
- **Answer: 60 cm^2**

Question 11

- **M1** Method: $(45-36)/45 = 9/45$ seen or equivalent
- **A1** 20% cao
- **Answer: 20%**

Question 12

- **M1** Conversion to improper fractions or adding whole and fractional parts seen
- **A1** $6 \frac{1}{4}$ or $25/4$ cao
- **Answer: $6 \frac{1}{4}$**

Question 13

- **B1** 14 cao
- **Answer: 14**

Question 14

- **M1** Multiplying 240 g by 7 seen giving 1680 g
- **A1** 1.68 kg cao
- **Answer: 1.68 kg**

Question 15

- **B1** 36 cao
- **Answer: 36**

Question 16

- **M1** Compute extra kilometres: 4×1.35 or equivalent
- **A1** £9.60 cao
- **Answer: £9.60**

Question 17

- **M1** Divide 9 by 1.5 or show $1.5 \times 6 = 9$ seen
- **A1** 6 cao
- **Answer: 6 bottles**

Question 18

- **M1** $48/6 = 8$ seen or equivalent
- **A1** 8 boxes cao
- **Answer: 8 boxes**

Question 19

- **M1** Divide 12.40 by 2 seen
- **A1** £6.20 cao
- **Answer: £6.20 each**

Question 20

- **M1** Division $90/5$ seen
- **A1** 18 cao
- **Answer: 18 apples**

Question 21

- **M1** Multiply 3×14.50 seen
- **M1** Add belt cost to subtotal seen
- **A1** £52.50 cao
- **Answer: £52.50**

Question 22

- **M1** Convert 15 minutes to $15/120$ hours or equivalent
- **A1** $1/8$ in lowest terms cao
- **Answer: $1/8$**

Question 23

- **M1** $56/7$ or equivalent division seen
- **A1** 8 cao
- **Answer: 8 cupcakes**

Question 24

- **M1** Divide total fencing by perimeter of one pen: $250/25$ or equivalent
- **A1** 10 pens cao
- **Answer: 10 pens**