



EP.M137 GL Assessment Style Maths Mock Paper 3

GL ASSESSMENT GL-11PLUS-MOCK3 · Calculators not allowed · about 55 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

1 What is $7,204 + 6,398$?

(Total for Question 1 is 1 mark)

2 Write 0.375 as a fraction in its simplest form.

(Total for Question 2 is 1 mark)

3 A rectangle has length 12 cm and width 7 cm. Work out its area in cm^2 .

(Total for Question 3 is 1 mark)

4 A shop sells 3 cans of juice for £2.70. What is the cost of one can?

(Total for Question 4 is 1 mark)

5 Order these numbers from smallest to largest: 3.14, 3.1, 3.041, 3.140

(Total for Question 5 is 2 marks)

6 Which of the following is equal to $\frac{4}{5}$?

- ☐ A) 0.45
- ☐ B) 0.8
- ☐ C) 0.85
- ☐ D) 4.05
- ☐ E) $\frac{5}{6}$

(Total for Question 6 is 1 mark)

7 A number is multiplied by 8 then 5 is subtracted. The result is 51. Work out the number.

(Total for Question 7 is 2 marks)

8 The bar chart shows number of books sold in a week by three shops. Shop A sold 24, Shop B sold 18 and Shop C sold 30. What fraction of the total books sold were sold by Shop B?

(Total for Question 8 is 1 mark)

9 Calculate 15% of £240.

(Total for Question 9 is 1 mark)

10 A triangular garden has sides of lengths 7 m, 7 m and 8 m. Work out its perimeter.

(Total for Question 10 is 1 mark)

11 Saira thinks of a number. She adds 12, multiplies the result by 3 then subtracts 9 and gets 60. Write down an equation to represent this and solve it.

(Total for Question 11 is 2 marks)

- 12** A right-angled triangle has legs of length 6 cm and 8 cm. Work out the length of the hypotenuse to the nearest mm.

(Total for Question 12 is 2 marks)

- 13** The scale on a map is 1 cm represents 5 km. Distance between two towns on the map is 3.6 cm. Work out the actual distance in km.

(Total for Question 13 is 1 mark)

- 14** Which number is a multiple of both 6 and 15?

- ☐ A) 30
- ☐ B) 18
- ☐ C) 45
- ☐ D) 50
- ☐ E) 36

(Total for Question 14 is 1 mark)

- 15** A sequence is: 5, 8, 11, 14, ... What is the 10th term?

(Total for Question 15 is 1 mark)

- 16** A bottle contains 2.5 litres of juice. It is poured equally into 5 glasses. How many millilitres are in each glass?

(Total for Question 16 is 1 mark)

- 17** A classroom has 28 pupils. $\frac{3}{7}$ of them are left-handed. How many pupils are right-handed?

(Total for Question 17 is 1 mark)

18 Which of these angles is acute?

- ☐ A) 90 degrees
- ☐ B) 100 degrees
- ☐ C) 60 degrees
- ☐ D) 180 degrees
- ☐ E) 120 degrees

(Total for Question 18 is 1 mark)

19 A cuboid has dimensions 4 cm by 3 cm by 2 cm. Work out its volume in cm^3 .

(Total for Question 19 is 1 mark)

20 A recipe needs 350 g of flour. Sam wants to make half the recipe. How much flour should he use?

(Total for Question 20 is 1 mark)

21 The perimeter of an isosceles triangle is 26 cm. The two equal sides are each 9 cm. Find the length of the base.

(Total for Question 21 is 1 mark)

22 A car travels 150 km in 2 hours 30 minutes. Work out its average speed in km/h to 1 decimal place.

(Total for Question 22 is 2 marks)

23 A number pattern: $n^2 + 2$ for $n = 1, 2, 3, \dots$ Give the sum of the first three terms.

(Total for Question 23 is 1 mark)

- 24** A bag contains red, blue and green counters. The ratio of red to blue to green is 3:2:1. If there are 36 counters in total, how many are blue?

(Total for Question 24 is 1 mark)

- 25** Multiply out and simplify: $3(2x + 4)$.

(Total for Question 25 is 1 mark)

- 26** A farmer has rectangular field 120 m long and 75 m wide. He wants to fence it with posts every 5 m along the perimeter including the corners. How many posts does he need?

(Total for Question 26 is 2 marks)

- 27** An angle and its supplement differ by 40 degrees. Find the larger angle.

(Total for Question 27 is 2 marks)

- 28** A list of five scores has mean 18. The four known scores are 15, 22, 17 and 21. Find the missing score.

(Total for Question 28 is 2 marks)

- 29** A spinner has 4 equal sections numbered 1 to 4. Two independent spins are made. What is the probability the total is 5? Give your answer as a fraction in simplest form.

(Total for Question 29 is 2 marks)

30 A shop reduces the price of a jacket by 20% to £64. Work out the original price.

(Total for Question 30 is 2 marks)

Mark scheme · EP.M137 GLAssessment Style Maths Mock Paper 3

Question 1

- **B1** 13,602 cao
- **Answer: 13,602**

Question 2

- **B1** $\frac{3}{8}$ cao
- **Answer: $\frac{3}{8}$**

Question 3

- **B1** 84 cm^2 cao
- **Answer: 84 cm^2**

Question 4

- **B1** £0.90 cao
- **Answer: £0.90**

Question 5

- **M1** Compare numbers to show smallest and largest identified oe (3.041 and 3.140)
- **A1** Complete correct order: 3.041, 3.1, 3.14, 3.140 cao
- **Answer: 3.041, 3.1, 3.14, 3.140**

Question 6

- **B1** correct option B (0.8) cao
- **Answer: B) 0.8**

Question 7

- **M1** Method seen: $(n \times 8) - 5 = 51$ or equivalent leading to $8n = 56$
- **A1** $n = 7$ cao
- **Answer: 7**

Question 8

- **B1** $\frac{1}{4}$ cao
- **Answer: $\frac{1}{4}$**

Question 9

- **B1** £36 cao
- **Answer: £36**

Question 10

- **B1** 22 m cao
- **Answer: 22 m**

Question 11

- **M1** Correct equation: $3(x + 12) - 9 = 60$ or equivalent
- **A1** $x = 11$ cao
- **Answer: Equation: $3(x + 12) - 9 = 60$. Solution: $x = 11$**

Question 12

- **M1** Pythagoras method: $\text{hyp}^2 = 6^2 + 8^2 = 36 + 64 = 100$
- **A1** Hypotenuse = 10.0 cm = 100 mm cao
- **Answer: 10.0 cm (100 mm)**

Question 13

- **B1** 18 km cao
- **Answer: 18 km**

Question 14

- **B1** correct option A (30) cao
- **Answer: A) 30**

Question 15

- **B1** 32 cao
- **Answer: 32**

Question 16

- **B1** 500 ml cao
- **Answer: 500 ml**

Question 17

- **B1** 16 cao
- **Answer: 16 pupils**

Question 18

- **B1** correct option C (60 degrees) cao
- **Answer: C) 60 degrees**

Question 19

- **B1** 24 cm^3 cao
- **Answer: 24 cm^3**

Question 20

- **B1** 175 g cao
- **Answer: 175 g**

Question 21

- **B1** 8 cm cao
- **Answer: 8 cm**

Question 22

- **M1** Method: speed = distance / time with time in hours: 2.5 h used
- **A1** 60.0 km/h cao
- **Answer: 60.0 km/h**

Question 23

- **B1** 20 cao
- **Answer: 20**

Question 24

- **B1** 12 cao
- **Answer: 12 counters**

Question 25

- **B1** $6x + 12$ cao
- **Answer: $6x + 12$**

Question 26

- **M1** Find perimeter: $2(120 + 75) = 390$ m and divide by 5 to find intervals: $390/5 = 78$
- **A1** 78 posts cao
- **Answer: 78 posts**

Question 27

- **M1** Let angles be x and $180 - x$; difference given: $(180 - x) - x = 40$ leading to $180 - 2x = 40$ or $2x = 140$
- **A1** $x = 70$ so larger is 110 degrees cao
- **Answer: 110 degrees**

Question 28

- **M1** Total of five scores = mean $\times 5 = 90$; sum known = $15 + 22 + 17 + 21 = 75$
- **A1** Missing score = $90 - 75 = 15$ cao
- **Answer: 15**

Question 29

- **M1** List or count outcomes giving total 5: (1,4), (2,3), (3,2), (4,1) = 4 favourable out of 16 total
- **A1** $1/4$ cao
- **Answer: $1/4$**

Question 30

- **M1** Let original be P ; after 20% reduction price = $0.8P = 64$ so show method leading to $P = 64/0.8$
- **A1** Original price = £80.00 cao
- **Answer: £80.00**