EP.M154 Kent Test Style Maths Paper 1

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

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A car park has 128 spaces. At 9:00 there are 47 cars parked. By 11:00 another 36 cars arrive and 12 cars leave. How many spaces are free at 11:00?

(Total for Question 1 is 1 mark)

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2 Complete the calculation: 3/4 + 1/8

- ☐ A) 7/8
- ☐ B) 4/5
- ☐ C) 1
- ☐ D) 5/8
- ☐ E) 3/8

(Total for Question 2 is 1 mark)

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3 The number 5.407 is rounded to 2 decimal places. What is the result?

(Total for Question 3 is 1 mark)

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4 A baker makes 96 mince pies and packs them into boxes of 6. Part a asks how many full boxes he can fill. Part b asks how many pies are left over.

(a) How many full boxes can he fill? **(1)**

.....

(b) How many pies are left over? **(1)**

.....

(Total for Question 4 is 2 marks)

5 A rectangular garden measures 12.5 m by 7.2 m. Calculate its area in square metres, giving your answer to 1 decimal place.

(Total for Question 5 is 2 marks)

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6 Sofia buys a jumper for £24 and a scarf for £8. How much change should she get from £50?

(Total for Question 6 is 1 mark)

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7 Which of the following numbers is a prime number?

- ☐ A) 21
- ☐ B) 27
- ☐ C) 29
- ☐ D) 33
- ☐ E) 35

(Total for Question 7 is 1 mark)

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8 A recipe uses 250 g of flour to make 10 biscuits. How much flour is needed to make 25 biscuits?

(Total for Question 8 is 2 marks)

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9 A number sequence begins 4, 7, 11, 16, ... What is the 7th term?

(Total for Question 9 is 2 marks)

10 Round 0.0498 to 2 significant figures.

- ☐ A) 0.05
- ☐ B) 0.049
- ☐ C) 0.050
- ☐ D) 0.04
- ☐ E) 0.0498

(Total for Question 10 is 1 mark)

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11 Write 4.2×10^3 as an ordinary number.

(Total for Question 11 is 2 marks)

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12 A bag contains red, blue and green counters in the ratio 3:2:1. If there are 36 counters in total, how many are blue?

(Total for Question 12 is 2 marks)

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13 Calculate 15% of £240.

- ☐ A) £30
- ☐ B) £36
- ☐ C) £42
- ☐ D) £24
- ☐ E) £18

(Total for Question 13 is 1 mark)

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14 A train journey takes 2 hours 45 minutes. If the train leaves at 09:20, what time does it arrive?

(Total for Question 14 is 3 marks)

15 Solve for n: 5n - 7 = 18

(Total for Question 15 is 2 marks)

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16 A cinema sells tickets for £7 each. If 213 tickets are sold, what is the total takings?

(Total for Question 16 is 1 mark)

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17 Which shape has rotational symmetry of order 4?

- ☐ A) Rectangle (not a square)
- ☐ B) Equilateral triangle
- ☐ C) Regular pentagon
- ☐ D) Square
- ☐ E) Isosceles trapezium

(Total for Question 17 is 1 mark)

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18 A shop sells pens at 3 for £2.40. How much would 8 pens cost?

(Total for Question 18 is 2 marks)

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19 A spinner has three equal red sections and two equal blue sections. The spinner is spun twice. Calculate the probability that both spins land on red. Give your answer as a fraction in lowest terms.

(Total for Question 19 is 3 marks)

20 A school orders 48 identical exercise books. They are placed into stacks of equal height so that each stack has the same number of books and there are at least 3 stacks and at most 8 stacks. Part a asks how many books per stack if there are 6 stacks. Part b asks for all possible numbers of stacks meeting the criteria and give the corresponding books per stack for each.

(Total for Question 20 is 4 marks)

Mark scheme · EP.M154 Kent Test Style Maths Paper 1

Question 1

- **B1** 57 cao
- **Answer: 57 spaces free at 11:00 (128 - (47 + 36 - 12) = 128 - 71 = 57)**

Question 2

- **B1** correct option A (7/8) cao
- **Answer: A) 7/8**

Question 3

- **B1** 5.41 cao
- **Answer: 5.41**

Question 4

- (a) **B1** 16 cao
- **(a) Answer: 16 boxes**
- (b) **B1** 0 cao
- **(b) Answer: 0 pies left over**

Question 5

- **M1** method: 12.5 x 7.2 seen
- **A1** 90.0 m^2 cao
- **Answer: 90.0 m^2**

Question 6

- **B1** £18 cao
- **Answer: £18**

Question 7

- **B1** correct option C (29) cao
- **Answer: C) 29**

Question 8

- **M1** method: 250/10 x 25 or 25/10 x 250 seen
- **A1** 625 g cao
- **Answer: 625 g**

Question 9

- **M1** method: find differences 3,4,5,... or formula "add n-1 increments"
- **A1** 37 cao
- **Answer: 37**

Question 10

- **B1** correct option A (0.05) cao
- **Answer: A) 0.05**

Question 11

- **M1** method: shift decimal 3 places right seen
- **A1** 4200 cao
- **Answer: 4200**

Question 12

- **M1** method: 3+2+1=6, 36/6 x 2 seen
- **A1** 12 cao
- **Answer: 12**

Question 13

- **B1** correct option B (£36) cao
- **Answer: B) £36**

Question 14

- **M1** method: add 2 hours to 09:20 and then add 45 minutes seen
- **M1** converts minutes correctly (09:20 + 2:00 = 11:20; +0:45 = 12:05) dep on previous
- **A1** 12:05 cao
- **Answer: 12:05**

Question 15

- **M1** method: add 7 to both sides or show 5n = 25
- **A1** n = 5 cao
- **Answer: n = 5**

Question 16

- **B1** £1491 cao
- **Answer: £1,491**

Question 17

- **B1** correct option D (Square) cao
- **Answer: D) Square**

Question 18

- **M1** method: find unit price (2.40/3) then x8
- **A1** £6.40 cao
- **Answer: £6.40**

Question 19

- **M1** method: probability for one spin = 3/5 or equivalent seen
- **M1** method: multiply probabilities for two independent spins: (3/5) x (3/5) seen
- **A1** 9/25 cao
- **Answer: 9/25**

Question 20

- **M1** method for (a): 48/6 seen
- **A1** 8 books per stack for (a) cao
- **M1** method: find divisors of 48 between 3 and 8 inclusive seen
- **A1** possible stacks: 3 -> 16, 4 -> 12, 6 -> 8, 8 -> 6 cao
- **Answer: (a) 8 per stack. (b) 3 stacks:16, 4 stacks:12, 6 stacks:8, 8 stacks:6**