



EP.M95 Fractions of Amounts and Remainders

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 45 minutes

Total Marks

--

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

1 What is $\frac{2}{5}$ of 25?

- ☐ A) 5
- ☐ B) 8
- ☐ C) 10
- ☐ D) 12
- ☐ E) 15

(Total for Question 1 is 1 mark)

2 Find $\frac{3}{4}$ of 48.

- ☐ A) 36
- ☐ B) 12
- ☐ C) 32
- ☐ D) 24
- ☐ E) 18

(Total for Question 2 is 1 mark)

3 Work out $\frac{3}{8}$ of 64, then add 5.

(Total for Question 3 is 2 marks)

4 $\frac{3}{10}$ of the money in a charity box is £18. Work out the total amount of money in the box.

(Total for Question 4 is 2 marks)

5 Sam gives $\frac{2}{5}$ of his stickers to Mia and has 12 stickers left. How many stickers did Sam start with?

- ☐ A) 15
- ☐ B) 20
- ☐ C) 18
- ☐ D) 24
- ☐ E) 30

(Total for Question 5 is 1 mark)

6 Priya has 73 sweets. She shares them equally between 8 friends. How many sweets does each friend get and how many sweets are left over?

(Total for Question 6 is 2 marks)

7 What is $\frac{1}{6}$ of 30?

- ☐ A) 6
- ☐ B) 4
- ☐ C) 5
- ☐ D) 3
- ☐ E) 8

(Total for Question 7 is 1 mark)

8 A water tank is $\frac{5}{8}$ full and contains 40 litres of water. What is the capacity of the tank in litres?

(Total for Question 8 is 2 marks)

9 Find $\frac{2}{5}$ of 60.

- ☐ A) 20
- ☐ B) 24
- ☐ C) 30
- ☐ D) 12
- ☐ E) 18

(Total for Question 9 is 1 mark)

- 10** A school collects 240 items. One third are books. One quarter of the remaining items are games. How many games were collected?

(Total for Question 10 is 3 marks)

- 11** $\frac{3}{7}$ of a number is 18. What is the number?

- ☐ A) 21
- ☐ B) 42
- ☐ C) 36
- ☐ D) 49
- ☐ E) 54

(Total for Question 11 is 1 mark)

- 12** A 200 g packet of nuts is opened. $\frac{2}{5}$ of the packet is eaten. How many grams are left?

(Total for Question 12 is 2 marks)

- 13** A jar contains 120 marbles. $\frac{2}{5}$ of them are red. How many marbles are not red?

(Total for Question 13 is 2 marks)

- 14** Find $\frac{1}{8}$ of £3.20.

- ☐ A) £0.20
- ☐ B) £0.40
- ☐ C) £0.80
- ☐ D) £1.00
- ☐ E) £0.60

(Total for Question 14 is 1 mark)

- 15** Sanaa eats $\frac{3}{8}$ of a pizza and Ben eats $\frac{1}{4}$ of the same pizza. What fraction of the pizza remains?

(Total for Question 15 is 2 marks)

- 16** If $\frac{1}{5}$ of a number is 14, what is the number?

- ☐ A) 54
- ☐ B) 65
- ☐ C) 70
- ☐ D) 75
- ☐ E) 80

(Total for Question 16 is 1 mark)

- 17** A coach makes 5 trips. On each trip it is $\frac{4}{5}$ full. Altogether 240 passengers are carried. How many seats does the coach have?

(Total for Question 17 is 3 marks)

- 18** A farmer has 50 eggs. He packs them into boxes of 6 eggs. How many full boxes can he fill?

- ☐ A) 7
- ☐ B) 8
- ☐ C) 9
- ☐ D) 6
- ☐ E) 10

(Total for Question 18 is 1 mark)

- 19** A number when divided by 7 gives remainder 4. The number is less than 50 and is the greatest possible such number. Find it.

(Total for Question 19 is 2 marks)

20 There are 8 pens each filled with 7 animals and 5 animals left unpened. What fraction of the total animals are in the filled pens? Also state the total number of animals.

(Total for Question 20 is 4 marks)

Mark scheme · EP.M95 Fractions of Amounts and Remainders

Question 1

- **B1** correct option C (10) cao
- **Answer: C) 10** ($2/5$ of $25 = 2 \times 5 = 10$)

Question 2

- **B1** correct option A (36) cao
- **Answer: A) 36** ($3/4$ of $48 = 48 \times 3/4 = 36$)

Question 3

- **M1** $3/8$ of 64 obtained (24) oe
- **A1** final answer 29 cao
- **Answer: 29**

Question 4

- **M1** method to divide £18 by $3/10$ seen (eg $£18 \times 10/3 = £60$) oe
- **A1** £60 cao
- **Answer: £60**

Question 5

- **B1** correct option B (20) cao
- **Answer: B) 20** (12 is $3/5$ so total = $12 \div 3/5 = 12 \times 5/3 = 20$)

Question 6

- **M1** correct division seen: $73 \div 8 = 9$ remainder 1 oe
- **A1** 9 sweets each and 1 sweet left over cao
- **Answer: Each friend gets 9 sweets, 1 sweet left over**

Question 7

- **B1** correct option C (5) cao
- **Answer: C) 5** ($30 \div 6 = 5$)

Question 8

- **M1** method dividing 40 by $5/8$ seen ($40 \times 8/5$) oe
- **A1** 64 litres cao
- **Answer: 64 litres**

Question 9

- **B1** correct option B (24) cao
- **Answer: B) 24** ($60 \times 2/5 = 24$)

Question 10

- **M1** books = $1/3$ of 240 = 80 seen
- **M1** remaining after books found ($240 - 80 = 160$) oe
- **A1** games = $1/4$ of 160 = 40 cao
- **Answer: 40 games**

Question 11

- **B1** correct option B (42) cao
- **Answer: B) 42** ($18 \div 3/7 = 18 \times 7/3 = 42$)

Question 12

- **M1** amount eaten = $\frac{2}{5}$ of 200 = 80 g seen
- **A1** grams left = $200 - 80 = 120$ g cao
- **Answer: 120 g**

Question 13

- **M1** red marbles = $\frac{2}{5}$ of 120 = 48 seen
- **A1** not red = $120 - 48 = 72$ cao
- **Answer: 72 marbles**

Question 14

- **B1** correct option B (£0.40) cao
- **Answer: £0.40** ($3.20 / 8 = 0.40$)

Question 15

- **M1** sum eaten = $\frac{3}{8} + \frac{1}{4} = \frac{3}{8} + \frac{2}{8} = \frac{5}{8}$ seen
- **A1** remaining = $1 - \frac{5}{8} = \frac{3}{8}$ cao
- **Answer: $\frac{3}{8}$**

Question 16

- **B1** correct option C (70) cao
- **Answer: C) 70** ($14 \times 5 = 70$)

Question 17

- **M1** relationship $5 \times (\frac{4}{5} \times \text{seats}) = 240$ or equivalent equation seen (eg $4 \times \text{seats} = 240$) oe
- **M1** solve $4 \times \text{seats} = 240$ to get seats = 60 seen
- **A1** 60 seats cao
- **Answer: 60 seats**

Question 18

- **B1** correct option B (8) cao
- **Answer: B) 8 full boxes** ($50 \div 6 = 8 \text{ remainder } 2$)

Question 19

- **M1** find k such that $7k + 4 < 50$ and k maximised (k = 6) seen
- **A1** 46 cao
- **Answer: 46**

Question 20

- **M1** total animals calculated ($8 \times 7 + 5 = 61$) seen
- **M1** animals in filled pens given as $8 \times 7 = 56$ seen
- **M1** fraction formed as $56/61$ seen
- **A1** final fraction $56/61$ and total 61 cao
- **Answer: Fraction in filled pens = $56/61$; Total = 61**