



EP.M100 Rounding and Estimating to Check an Answer

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

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

1 Round 48 to the nearest 10.

- ☐ A) 40
- ☐ B) 45
- ☐ C) 50
- ☐ D) 48
- ☐ E) 60

(Total for Question 1 is 1 mark)

2 Round 3,476 to the nearest 100.

- ☐ A) 3,400
- ☐ B) 3,480
- ☐ C) 3,500
- ☐ D) 3,000
- ☐ E) 3,476

(Total for Question 2 is 1 mark)

3 Round 16,249 to the nearest 1,000.

- ☐ A) 16,000
- ☐ B) 16,200
- ☐ C) 17,000
- ☐ D) 15,000
- ☐ E) 16,249

(Total for Question 3 is 1 mark)

4 Round 0.76 to one decimal place.

- ☐ A) 0.7
- ☐ B) 0.8
- ☐ C) 0.76
- ☐ D) 1.0
- ☐ E) 0.6

(Total for Question 4 is 1 mark)

5 Round 5.05 to one decimal place.

- ☐ A) 5.0
- ☐ B) 5.1
- ☐ C) 5.05
- ☐ D) 5.01
- ☐ E) 5.2

(Total for Question 5 is 1 mark)

6 Round 999 to the nearest 100.

- ☐ A) 900
- ☐ B) 1,000
- ☐ C) 1,100
- ☐ D) 990
- ☐ E) 999

(Total for Question 6 is 1 mark)

7 Round 2,345 to the nearest 10.

- ☐ A) 2,340
- ☐ B) 2,350
- ☐ C) 2,300
- ☐ D) 2,345
- ☐ E) 2,400

(Total for Question 7 is 1 mark)

8 Round -3.6 to the nearest whole number.

- ☐ A) -3
- ☐ B) -4
- ☐ C) -3.6
- ☐ D) -3.0
- ☐ E) -2

(Total for Question 8 is 1 mark)

9 Write 7,845 rounded to the nearest 100.

(Total for Question 9 is 1 mark)

10 Round 0.249 to one decimal place.

(Total for Question 10 is 1 mark)

11 Round 12,550 to the nearest 1,000.

(Total for Question 11 is 1 mark)

12 Round 6.74 to one decimal place.

(Total for Question 12 is 1 mark)

13 A school orders two items priced £23.78 and £9.46. Estimate the total by rounding each price to the nearest pound, and say whether the exact total £33.24 is sensible.

(Total for Question 13 is 2 marks)

- 14** Someone calculates $2.37 + 2.41 = 4.8$. Round each addend to 1 decimal place and use that estimate to say whether 4.8 is sensible.

(Total for Question 14 is 2 marks)

- 15** A pupil writes $149 \div 6 = 24.5$. Use estimation (rounding 149 to a nearby sensible number) to decide whether 24.5 is reasonable.

(Total for Question 15 is 2 marks)

- 16** A calculator shows $18.9 \times 4.2 = 79.38$. By rounding 18.9 and 4.2 to sensible values estimate the product and say if 79.38 is plausible.

(Total for Question 16 is 2 marks)

- 17** A lorry carries 12,345 kg of apples. The driver claims the load is about 12 tonnes. Round the mass to the nearest tonne and say if the claim is reasonable.

(Total for Question 17 is 2 marks)

- 18** A hospital needs 18,750 ml of saline. A nurse says this is about 19 litres. Round to a sensible unit and say if 19 litres is reasonable.

(Total for Question 18 is 2 marks)

- 19** Round 2.15 to one decimal place.

(Total for Question 19 is 1 mark)

- 20** A student calculates $246 \times 39 = 9,594$. Use estimation by rounding each number to a nearby value, find the approximate product and say whether 9,594 is reasonable.

(Total for Question 20 is 3 marks)

Mark scheme · EP.M100 Rounding and Estimating to Check an Answer

Question 1

- **B1** correct option C (50) cao
- **Answer: C) 50 (correct option C).**

Question 2

- **B1** correct option C (3,500) cao
- **Answer: C) 3,500 (correct option C).**

Question 3

- **B1** correct option A (16,000) cao
- **Answer: A) 16,000 (correct option A).**

Question 4

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

Question 5

- **B1** correct option B (5.1) cao
- **Answer: B) 5.1 (correct option B).**

Question 6

- **B1** correct option B (1,000) cao
- **Answer: B) 1,000 (correct option B).**

Question 7

- **B1** correct option B (2,350) cao
- **Answer: B) 2,350 (correct option B).**

Question 8

- **B1** correct option B (-4) cao
- **Answer: B) -4 (correct option B).**

Question 9

- **B1** 7,800 cao
- **Answer: 7,800**

Question 10

- **B1** 0.2 cao
- **Answer: 0.2**

Question 11

- **B1** 13,000 cao
- **Answer: 13,000**

Question 12

- **B1** 6.7 cao
- **Answer: 6.7**

Question 13

- **M1** rounding to nearest pound seen: 23.78 -> 24, 9.46 -> 9 or equivalent
- **A1** estimate $24 + 9 = £33$ and statement that £33.24 is sensible ft from estimate
- **Answer: Estimated total £33.00, so £33.24 is a sensible exact total.**

Question 14

- **M1** rounding to 1 dp shown: 2.37 → 2.4, 2.41 → 2.4
- **A1** $2.4 + 2.4 = 4.8$ and statement that 4.8 is sensible ft rounding
- **Answer: Rounded estimate 4.8, so the answer 4.8 is sensible.**

Question 15

- **M1** round 149 to 150 or $150/6$ seen
- **A1** $150 \div 6 = 25$ and statement that 24.5 is close to 25 so reasonable
- **Answer: Estimate $150 \div 6 = 25$ so 24.5 is a reasonable answer.**

Question 16

- **M1** rounding shown, e.g. 18.9 → 19 and 4.2 → 4
- **A1** estimate $19 \times 4 = 76$ and statement that 79.38 is slightly larger but plausible
- **Answer: Estimate $19 \times 4 = 76$ so 79.38 is plausible.**

Question 17

- **M1** rounding to nearest tonne shown: 12,345 kg → 12 tonnes
- **A1** statement that 'about 12 tonnes' is reasonable ft rounding
- **Answer: Rounded mass 12 tonnes, so the claim is reasonable.**

Question 18

- **M1** conversion/rounding seen: 18,750 ml = 18.75 L → round to 19 L
- **A1** statement that 19 L is a reasonable estimate ft rounding
- **Answer: 18.75 L rounds to 19 L, so about 19 litres is reasonable.**

Question 19

- **B1** 2.2 cao
- **Answer: 2.2**

Question 20

- **M1** rounding shown, e.g. 246 → 250 and 39 → 40
- **M1** approximate multiplication shown: $250 \times 40 = 10,000$
- **A1** statement that 9,594 is close to estimate 10,000 so the answer is reasonable
- **Answer: Estimated product 10,000 so 9,594 is a reasonable exact result.**