2.77 Rounding and Estimating to Check an Answer: Test Pack

Total Marks

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

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Round 48 to the nearest 10.

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

---

2 A town's population was 36,000 to the nearest 1000. What is the smallest whole number it could be?

- ☐ A) 35,000
- ☐ B) 35,500
- ☐ C) 35,501
- ☐ D) 36,500
- ☐ E) 35,499

---

3 The number of visitors to a museum was 9,900 to the nearest 100. What is the largest whole number it could be?

- ☐ A) 9,849
- ☐ B) 9,949
- ☐ C) 10,000
- ☐ D) 9,950
- ☐ E) 9,948

---

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

(1)

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5 Estimate the value of 634 x 12 by rounding each number to 1 significant figure.

- [ ] A) 610
- [ ] B) 7,608
- [ ] C) 6,000
- [ ] D) 60,000
- [ ] E) 600

---

6 Estimate the value of 265 x 27 by rounding each number to 1 significant figure.

- [ ] A) 90,000
- [ ] B) 8,100
- [ ] C) 9,000
- [ ] D) 900
- [ ] E) 330

---

7 The number of visitors to a museum was 5,000 to the nearest 100. What is the smallest whole number it could be?

- [ ] A) 4,951
- [ ] B) 4,900
- [ ] C) 4,949
- [ ] D) 5,050
- [ ] E) 4,950

---

8 The number of visitors to a museum was 520 to the nearest 10. What is the largest whole number it could be?

- [ ] A) 526
- [ ] B) 530
- [ ] C) 525
- [ ] D) 514
- [ ] E) 524

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9 The crowd at a match was 2,400 to the nearest 100. What is the smallest whole number it could be?

- [ ] A) 2,300
- [ ] B) 2,450
- [ ] C) 2,349
- [ ] D) 2,350
- [ ] E) 2,351

---

10 The number of visitors to a museum was 4,000 to the nearest 1000. What is the smallest whole number it could be?

- [ ] A) 4,500
- [ ] B) 3,000
- [ ] C) 3,499
- [ ] D) 3,500
- [ ] E) 3,501

---

11 A town's population was 83,000 to the nearest 1000. What is the largest whole number it could be?

- [ ] A) 83,499
- [ ] B) 82,499
- [ ] C) 83,501
- [ ] D) 83,500
- [ ] E) 84,000

---

12 A town's population was 200 to the nearest 100. What is the smallest whole number it could be?

- [ ] A) 100
- [ ] B) 150
- [ ] C) 250
- [ ] D) 149
- [ ] E) 151

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13 A town's population was 3,900 to the nearest 100. What is the largest whole number it could be?

- [ ] A) 4,000
- [ ] B) 3,950
- [ ] C) 3,849
- [ ] D) 3,951
- [ ] E) 3,949

---

14 A town's population was 45,000 to the nearest 1000. What is the smallest whole number it could be?

- [ ] A) 44,500
- [ ] B) 44,499
- [ ] C) 44,000
- [ ] D) 44,501
- [ ] E) 45,500

---

15 A town's population was 73,000 to the nearest 1000. What is the largest whole number it could be?

- [ ] A) 74,000
- [ ] B) 73,499
- [ ] C) 73,500
- [ ] D) 72,499
- [ ] E) 73,501

---

16 The crowd at a match was 280 to the nearest 10. What is the largest whole number it could be?

- [ ] A) 285
- [ ] B) 283
- [ ] C) 274
- [ ] D) 286
- [ ] E) 284

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17 The number of visitors to a museum was 1,600 to the nearest 100. What is the largest whole number it could be?

- [ ] A) 1,650
- [ ] B) 1,651
- [ ] C) 1,700
- [ ] D) 1,549
- [ ] E) 1,649

---

18 The number of visitors to a museum was 38,000 to the nearest 1000. What is the smallest whole number it could be?

- [ ] A) 37,501
- [ ] B) 38,500
- [ ] C) 37,500
- [ ] D) 37,499
- [ ] E) 37,000

---

19 The number of visitors to a museum was 4,500 to the nearest 100. What is the smallest whole number it could be?

- [ ] A) 4,451
- [ ] B) 4,400
- [ ] C) 4,449
- [ ] D) 4,450
- [ ] E) 4,550

---

20 Estimate the value of 73.3 x 8.8 by rounding each number to 1 significant figure.

- [ ] A) 645.04
- [ ] B) 630
- [ ] C) 63
- [ ] D) 6,300
- [ ] E) 616

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21 Estimate the value of 79 x 18 by rounding each number to 1 significant figure.

- [ ] A) 1,422
- [ ] B) 16,000
- [ ] C) 1,600
- [ ] D) 1,440
- [ ] E) 160

---

22 Estimate the value of 57 x 3.8 by rounding each number to 1 significant figure.

- [ ] A) 240
- [ ] B) 216.6
- [ ] C) 24
- [ ] D) 2,400
- [ ] E) 64

---

23 A town's population was 390 to the nearest 10. What is the largest whole number it could be?

- [ ] A) 395
- [ ] B) 384
- [ ] C) 400
- [ ] D) 394
- [ ] E) 396

---

24 Estimate the value of 69 x 4.4 by rounding each number to 1 significant figure.

- [ ] A) 28
- [ ] B) 2,800
- [ ] C) 303.6
- [ ] D) 308
- [ ] E) 280

---

25 Estimate the value of 90.1 x 26 by rounding each number to 1 significant figure.

- [ ] A) 270
- [ ] B) 27,000
- [ ] C) 2,342.6
- [ ] D) 2,340
- [ ] E) 2,700

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26 The number of visitors to a museum was 310 to the nearest 10. What is the smallest whole number it could be?

- [ ] A) 305
- [ ] B) 315
- [ ] C) 300
- [ ] D) 306
- [ ] E) 304

---

27 The crowd at a match was 9,100 to the nearest 100. What is the smallest whole number it could be?

- [ ] A) 9,049
- [ ] B) 9,150
- [ ] C) 9,000
- [ ] D) 9,051
- [ ] E) 9,050

---

28 A town's population was 900 to the nearest 100. What is the largest whole number it could be?

- [ ] A) 951
- [ ] B) 948
- [ ] C) 950
- [ ] D) 949
- [ ] E) 849

---

29 Estimate the value of 41 x 4.8 by rounding each number to 1 significant figure.

- [ ] A) 20
- [ ] B) 196.8
- [ ] C) 200
- [ ] D) 2,000
- [ ] E) 192

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30 Estimate the value of 8,560 ÷ 4.5 by rounding each number to 1 significant figure.

- [ ] A) 8,995
- [ ] B) 2,000
- [ ] C) 1,800
- [ ] D) 180
- [ ] E) 18,000

---

31 Estimate the value of 308 x 8.3 by rounding each number to 1 significant figure.

- [ ] A) 2,400
- [ ] B) 308
- [ ] C) 240
- [ ] D) 24,000
- [ ] E) 2,556.4

---

32 The crowd at a match was 28,000 to the nearest 1000. What is the largest whole number it could be?

- [ ] A) 28,499
- [ ] B) 27,499
- [ ] C) 29,000
- [ ] D) 28,498
- [ ] E) 28,500

---

33 Round 6,386 to the nearest 100.

- [ ] A) 6,400
- [ ] B) 6,390
- [ ] C) 6,000
- [ ] D) 640
- [ ] E) 6,300

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34 Estimate the value of 86 x 2.9 by rounding each number to 1 significant figure.

- [ ] A) 261
- [ ] B) 249.4
- [ ] C) 270
- [ ] D) 27
- [ ] E) 2,700

---

35 Estimate the value of 1,843 ÷ 3.8 by rounding each number to 1 significant figure.

- [ ] A) 485
- [ ] B) 50
- [ ] C) 500
- [ ] D) 1,996
- [ ] E) 5,000

---

36 Estimate the value of 18.9 x 2.4 by rounding each number to 1 significant figure.

- [ ] A) 400
- [ ] B) 4
- [ ] C) 40
- [ ] D) 45.36
- [ ] E) 22

---

37 Estimate the value of 88.2 x 85 by rounding each number to 1 significant figure.

- [ ] A) 7,497
- [ ] B) 81,000
- [ ] C) 180
- [ ] D) 810
- [ ] E) 8,100

---

38 Estimate the value of 249 x 31 by rounding each number to 1 significant figure.

- [ ] A) 600
- [ ] B) 6,200
- [ ] C) 230
- [ ] D) 6,000
- [ ] E) 60,000

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39 Estimate the value of 453 x 278 by rounding each number to 1 significant figure.

- [ ] A) 125,934
- [ ] B) 1,500,000
- [ ] C) 800
- [ ] D) 150,000
- [ ] E) 15,000

---

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

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

---

41 Estimate the value of 93 x 364 by rounding each number to 1 significant figure.

- [ ] A) 3,600
- [ ] B) 36,000
- [ ] C) 360,000
- [ ] D) 33,852
- [ ] E) 490

---

42 Round 18 to the nearest 10.

- [ ] A) 18
- [ ] B) 10
- [ ] C) 2
- [ ] D) 20
- [ ] E) 80

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43 A town's population was 81,000 to the nearest 1000. What is the largest whole number it could be?

- [ ] A) 81,501
- [ ] B) 81,500
- [ ] C) 82,000
- [ ] D) 80,499
- [ ] E) 81,499

---

44 Estimate the value of 87 x 2.2 by rounding each number to 1 significant figure.

- [ ] A) 180
- [ ] B) 92
- [ ] C) 198
- [ ] D) 1,800
- [ ] E) 18

---

45 A town's population was 640 to the nearest 10. What is the smallest whole number it could be?

- [ ] A) 634
- [ ] B) 636
- [ ] C) 630
- [ ] D) 635
- [ ] E) 645

---

46 Round 999 to the nearest 100.

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

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47 Estimate the value of 31 x 144 by rounding each number to 1 significant figure.

- [ ] A) 3,000
- [ ] B) 130
- [ ] C) 4,464
- [ ] D) 300
- [ ] E) 30,000

---

48 The number of visitors to a museum was 5,800 to the nearest 100. What is the largest whole number it could be?

- [ ] A) 5,851
- [ ] B) 5,850
- [ ] C) 5,749
- [ ] D) 5,849
- [ ] E) 5,848

---

49 The number of visitors to a museum was 950 to the nearest 10. What is the smallest whole number it could be?

- [ ] A) 944
- [ ] B) 945
- [ ] C) 946
- [ ] D) 940
- [ ] E) 955

---

50 The crowd at a match was 5,700 to the nearest 100. What is the smallest whole number it could be?

- [ ] A) 5,750
- [ ] B) 5,600
- [ ] C) 5,650
- [ ] D) 5,649
- [ ] E) 5,651

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51 The number of visitors to a museum was 6,100 to the nearest 100. What is the largest whole number it could be?

- ☐ A) 6,151
- ☐ B) 6,150
- ☐ C) 6,049
- ☐ D) 6,149
- ☐ E) 6,148

---

52 Write 7,845 rounded to the nearest 100.

(1)

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53 Estimate the value of 522 x 8.3 by rounding each number to 1 significant figure.

- ☐ A) 40,000
- ☐ B) 400
- ☐ C) 4,000
- ☐ D) 4,150
- ☐ E) 4,332.6

---

54 Estimate the value of 56 x 2.1 by rounding each number to 1 significant figure.

- ☐ A) 62
- ☐ B) 1,200
- ☐ C) 117.6
- ☐ D) 12
- ☐ E) 120

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55 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.

(2)

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56 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.

(2)

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Mark scheme · 2.77 Rounding and Estimating to Check an Answer: Test Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

correct option B (50) cao **B1**

Answer: B) 50

Question 2

correct option B (35,500) cao **B1**

Answer: B) 35,500

Question 3

correct option B (9,949) cao **B1**

Answer: B) 9,949

Question 4

13,000 cao **B1**

Answer: 13,000

Question 5

correct option C (6,000) cao **B1**

Answer: C) 6,000

Question 6

correct option C (9,000) cao **B1**

Answer: C) 9,000

Question 7

correct option E (4,950) cao **B1**

Answer: E) 4,950

Question 8

correct option E (524) cao **B1**

Answer: E) 524

Question 9

correct option D (2,350) cao **B1**

Answer: D) 2,350

Question 10

correct option D (3,500) cao **B1**

Answer: D) 3,500

Question 11

correct option A (83,499) cao **B1**

Answer: A) 83,499

Question 12

correct option B (150) cao **B1**

Answer: B) 150

Question 13

correct option E (3,949) cao **B1**

Answer: E) 3,949

Question 14

correct option A (44,500) cao **B1**

Answer: A) 44,500

Question 15

correct option B (73,499) cao **B1**

Answer: B) 73,499

Question 16

correct option E (284) cao **B1**

Answer: E) 284

Question 17

correct option E (1,649) cao **B1**

Answer: E) 1,649

Question 18

correct option C (37,500) cao **B1**

Answer: C) 37,500

Question 19

correct option D (4,450) cao **B1**

Answer: D) 4,450

Question 20

correct option B (630) cao **B1**

Answer: B) 630

Question 21

correct option C (1,600) cao **B1**

Answer: C) 1,600

Question 22

correct option A (240) cao **B1**

Answer: A) 240

Question 23

correct option D (394) cao **B1**

Answer: D) 394

Question 24

correct option E (280) cao **B1**

Answer: E) 280

Question 25

correct option E (2,700) cao **B1**

Answer: E) 2,700

Question 26

correct option A (305) cao **B1**

Answer: A) 305

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Question 27

correct option E (9,050) cao **B1**

Answer: E) 9,050

Question 28

correct option D (949) cao **B1**

Answer: D) 949

Question 29

correct option C (200) cao **B1**

Answer: C) 200

Question 30

correct option C (1,800) cao **B1**

Answer: C) 1,800

Question 31

correct option A (2,400) cao **B1**

Answer: A) 2,400

Question 32

correct option A (28,499) cao **B1**

Answer: A) 28,499

Question 33

correct option A (6,400) cao **B1**

Answer: A) 6,400

Question 34

correct option C (270) cao **B1**

Answer: C) 270

Question 35

correct option C (500) cao **B1**

Answer: C) 500

Question 36

correct option C (40) cao **B1**

Answer: C) 40

Question 37

correct option E (8,100) cao **B1**

Answer: E) 8,100

Question 38

correct option D (6,000) cao **B1**

Answer: D) 6,000

Question 39

correct option D (150,000) cao **B1**

Answer: D) 150,000

Question 40

correct option A (16,000) cao **B1**

Answer: A) 16,000 (correct option A).

Question 41

correct option B (36,000) cao **B1**

Answer: B) 36,000

Question 42

correct option D (20) cao **B1**

Answer: D) 20

Question 43

correct option E (81,499) cao **B1**

Answer: E) 81,499

Question 44

correct option A (180) cao **B1**

Answer: A) 180

Question 45

correct option D (635) cao **B1**

Answer: D) 635

Question 46

correct option A (1,000) cao **B1**

Answer: A) 1,000

Question 47

correct option A (3,000) cao **B1**

Answer: A) 3,000

Question 48

correct option D (5,849) cao **B1**

Answer: D) 5,849

Question 49

correct option B (945) cao **B1**

Answer: B) 945

Question 50

correct option C (5,650) cao **B1**

Answer: C) 5,650

Question 51

correct option D (6,149) cao **B1**

Answer: D) 6,149

Question 52

7,800 cao **B1**

Answer: 7,800

Question 53

correct option C (4,000) cao **B1**

Answer: C) 4,000

Question 54

correct option E (120) cao **B1**

Answer: E) 120

Question 55

rounding to 1 dp shown: 2.37 -> 2.4, 2.41 -> 2.4 **M1**

2.4 + 2.4 = 4.8 and statement that 4.8 is sensible ft rounding **A1**

Answer: Rounded estimate 4.8, so the answer 4.8 is sensible.

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Question 56

conversion/rounding seen: 18,750 ml = 18.75 L -> round to 19 L **M1**

statement that 19 L is a reasonable estimate ft rounding **A1**

Answer: 18.75 L rounds to 19 L, so about 19 litres is reasonable.

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