2.103 Mean, Median, Mode and Range in Depth: 1-hour Pack

Total Marks

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 60 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 What is the median of these 8 numbers? 14, 1, 18, 34, 34, 24, 12, 28

- ☐ A) 34
- ☐ B) 22
- ☐ C) 21
- ☐ D) 18
- ☐ E) 20.625

---

2 Kwame scores 7, 20, 15, 7 in 4 games. Kwame wants a mean score of 13 over 5 games. What must Kwame score in the last game?

- ☐ A) 65
- ☐ B) 21
- ☐ C) 16
- ☐ D) 15
- ☐ E) 13

---

3 Here are some numbers: 33, 23, 9, 30, 36, 30. What is the mode?

- ☐ A) 9
- ☐ B) 29
- ☐ C) 2
- ☐ D) 30
- ☐ E) 36

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4 The mean score in 3 weekly spelling tests is 17. After one more weekly spelling test the mean score is 18. What was the score in the last weekly spelling test?

- [ ] A) 72
- [ ] B) 21
- [ ] C) 20
- [ ] D) 18
- [ ] E) 14

---

5 The values for the heights of sunflowers in cm are 14, 12, 13, 12, 6, 1, 15, 15. What is the mean?

- [ ] A) 10
- [ ] B) 12
- [ ] C) 88
- [ ] D) 12.5
- [ ] E) 11

---

6 Sienna scores 22, 49, 25 in 3 games. Sienna wants a mean score of 33 over 4 games. What must Sienna score in the last game?

- [ ] A) 132
- [ ] B) 41
- [ ] C) 36
- [ ] D) 33
- [ ] E) 37

---

7 Here are some numbers: 1, 33, 24, 20, 33. What is the range?

- [ ] A) 33
- [ ] B) 32
- [ ] C) 34
- [ ] D) 1
- [ ] E) 31

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8 The mean score in 4 tests is 39. After one more test the mean score is 40. What was the score in the last test?

- [ ] A) 44
- [ ] B) 4
- [ ] C) 40
- [ ] D) 200
- [ ] E) 35

---

9 The values for the heights of sunflowers in cm are 7, 26, 19, 58, 47, 54, 55. What is the mean?

- [ ] A) 37
- [ ] B) 266
- [ ] C) 38
- [ ] D) 47
- [ ] E) 39

---

10 What is the median of these 5 numbers? 103, 24, 67, 7, 64

- [ ] A) 65
- [ ] B) 64
- [ ] C) 63
- [ ] D) 67
- [ ] E) 53

---

11 Noah scores 27, 24, 12, 12, 10 in 5 games. Noah wants a mean score of 16 over 6 games. What must Noah score in the last game?

- [ ] A) 10
- [ ] B) 16
- [ ] C) 96
- [ ] D) -5
- [ ] E) 11

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12 Here are some numbers: 39, 28, 16, 6, 29, 8, 29, 31, 4. What is the range?

- ☐ A) 35
- ☐ B) 36
- ☐ C) 4
- ☐ D) 34
- ☐ E) 39

---

13 Here are 4 numbers: 82, 37, 67, 58. What is the mean?

- ☐ A) 60
- ☐ B) 244
- ☐ C) 61
- ☐ D) 45
- ☐ E) 62.5

---

14 What is the median of these 9 numbers? 14, 40, 32, 25, 37, 16, 16, 36, 26

- ☐ A) 32
- ☐ B) 27
- ☐ C) 37
- ☐ D) 25
- ☐ E) 26

---

15 Ffion scores 17, 18, 23, 34, 23 in 5 games. Ffion wants a mean score of 23 over 6 games. What must Ffion score in the last game?

- ☐ A) 24
- ☐ B) 23
- ☐ C) 138
- ☐ D) 0
- ☐ E) 46

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16 Here are some numbers: 110, 56, 63, 56, 66, 16, 28. What is the mode?

- ☐ A) 56
- ☐ B) 2
- ☐ C) 55
- ☐ D) 16
- ☐ E) 110

---

17 The mean score in 3 tests is 39. After one more test the mean score is 40. What was the score in the last test?

- ☐ A) 160
- ☐ B) 36
- ☐ C) 42
- ☐ D) 43
- ☐ E) 40

---

18 Here are 3 numbers: 12, 9, 15. What is the mean?

- ☐ A) 6
- ☐ B) 36
- ☐ C) 9
- ☐ D) 13
- ☐ E) 12

---

19 Sana scores 20, 36, 20, 23, 20, 40, 20 in 7 games. Sana wants a mean score of 27 over 8 games. What must Sana score in the last game?

- ☐ A) 37
- ☐ B) 64
- ☐ C) 38
- ☐ D) 216
- ☐ E) 27

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20 Here are some numbers: 9, 37, 30, 18, 36, 34, 24, 7, 12, 9, 3. What is the mode?

- ☐ A) 3
- ☐ B) 37
- ☐ C) 9
- ☐ D) 2
- ☐ E) 8

---

21 The mean score in 5 tests is 6. After one more test the mean score is 8. What was the score in the last test?

- ☐ A) 8
- ☐ B) 10
- ☐ C) 17
- ☐ D) 18
- ☐ E) 48

---

22 What is the median of these 7 numbers? 73, 67, 16, 24, 103, 4, 79

- ☐ A) 24
- ☐ B) 66
- ☐ C) 67
- ☐ D) 68
- ☐ E) 73

---

23 Chloe scores 41, 21, 20, 44, 40, 57 in 6 games. Chloe wants a mean score of 40 over 7 games. What must Chloe score in the last game?

- ☐ A) 57
- ☐ B) 40
- ☐ C) 280
- ☐ D) 62
- ☐ E) 97

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24 The mean score in 8 weekly spelling tests is 8. After one more weekly spelling test the mean score is 10. What was the score in the last weekly spelling test?

- [ ] A) 16
- [ ] B) 25
- [ ] C) 90
- [ ] D) 10
- [ ] E) 26

---

25 The values for daily temperatures in °C are 8, 9, 22, 21, 20. What is the mean?

- [ ] A) 14
- [ ] B) 16
- [ ] C) 20
- [ ] D) 15
- [ ] E) 80

---

26 What is the median of these 9 numbers? 9, 84, 65, 101, 67, 54, 34, 20, 113

- [ ] A) 67
- [ ] B) 54
- [ ] C) 65
- [ ] D) 66
- [ ] E) 64

---

27 Amara scores 21, 8, 27, 9, 19 in 5 games. Amara wants a mean score of 16 over 6 games. What must Amara score in the last game?

- [ ] A) 16
- [ ] B) 11
- [ ] C) 96
- [ ] D) 12
- [ ] E) -4

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28 Here are some numbers: 13, 22, 34, 34, 9. What is the mode?

- ☐ A) 34
- ☐ B) 9
- ☐ C) 2
- ☐ D) 33
- ☐ E) 22

---

29 The mean score in 8 weekly spelling tests is 26. After one more weekly spelling test the mean score is 24. What was the score in the last weekly spelling test?

- ☐ A) 24
- ☐ B) 8
- ☐ C) 9
- ☐ D) 7
- ☐ E) 216

---

30 Here are 7 numbers: 11, 29, 48, 13, 12, 17, 10. What is the mean?

- ☐ A) 17.5
- ☐ B) 38
- ☐ C) 20
- ☐ D) 13
- ☐ E) 140

---

31 Sana scores 29, 35, 20 in 3 games. Sana wants a mean score of 23 over 4 games. What must Sana score in the last game?

- ☐ A) 8
- ☐ B) 92
- ☐ C) 23
- ☐ D) -15
- ☐ E) 7

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32 Here are some numbers: 110, 97, 88, 92, 102, 15, 46, 115, 101, 31, 110. What is the mode?

- ☐ A) 15
- ☐ B) 109
- ☐ C) 97
- ☐ D) 110
- ☐ E) 115

---

33 The mean score in 4 games is 30. After one more game the mean score is 31. What was the score in the last game?

- ☐ A) 4
- ☐ B) 31
- ☐ C) 155
- ☐ D) 34
- ☐ E) 35

---

34 Here are 3 numbers: 23, 18, 58. What is the mean?

- ☐ A) 23
- ☐ B) 33
- ☐ C) 49.5
- ☐ D) 32
- ☐ E) 99

---

35 What is the median of these 8 numbers? 11, 20, 3, 23, 28, 37, 28, 17

- ☐ A) 25.5
- ☐ B) 20.875
- ☐ C) 21.5
- ☐ D) 22.5
- ☐ E) 20.5

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36 Lily scores 40, 30, 45, 26, 43, 17 in 6 games. Lily wants a mean score of 31 over 7 games. What must Lily score in the last game?

- [ ] A) 16
- [ ] B) 31
- [ ] C) -15
- [ ] D) 217
- [ ] E) 47

---

37 Here are some numbers: 12, 13, 23, 4, 4, 17. What is the range?

- [ ] A) 12.5
- [ ] B) 4
- [ ] C) 23
- [ ] D) 20
- [ ] E) 19

---

38 Here are 4 numbers: 28, 23, 37, 52. What is the mean?

- [ ] A) 140
- [ ] B) 36
- [ ] C) 28
- [ ] D) 35
- [ ] E) 32.5

---

39 What is the median of these 9 numbers? 109, 68, 13, 2, 60, 82, 87, 114, 54

- [ ] A) 69
- [ ] B) 67
- [ ] C) 68
- [ ] D) 82
- [ ] E) 60

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40 Noah scores 23, 24, 34, 23 in 4 games. Noah wants a mean score of 25 over 5 games. What must Noah score in the last game?

- [ ] A) -4
- [ ] B) 25
- [ ] C) 125
- [ ] D) 21
- [ ] E) 22

---

41 Here are some numbers: 33, 30, 36, 30, 5, 34. What is the mode?

- [ ] A) 31.5
- [ ] B) 30
- [ ] C) 36
- [ ] D) 5
- [ ] E) 31

---

42 The mean score in 8 weekly spelling tests is 5. After one more weekly spelling test the mean score is 9. What was the score in the last weekly spelling test?

- [ ] A) 41
- [ ] B) 9
- [ ] C) 81
- [ ] D) 32
- [ ] E) 42

---

43 Here are 6 numbers: 14, 16, 13, 7, 13, 9. What is the mean?

- [ ] A) 14.4
- [ ] B) 13
- [ ] C) 12
- [ ] D) 11
- [ ] E) 72

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44 Callum scores 47, 25, 40 in 3 games. Callum wants a mean score of 38 over 4 games. What must Callum score in the last game?

- [ ] A) 2
- [ ] B) 38
- [ ] C) 40
- [ ] D) 41
- [ ] E) 152

---

45 Here are some numbers: 37, 5, 22, 14, 28, 15, 37. What is the range?

- [ ] A) 42
- [ ] B) 32
- [ ] C) 37
- [ ] D) 31
- [ ] E) 5

---

46 The mean score in 4 tests is 36. After one more test the mean score is 39. What was the score in the last test?

- [ ] A) 51
- [ ] B) 52
- [ ] C) 195
- [ ] D) 12
- [ ] E) 39

---

47 What is the median of these 8 numbers? 31, 8, 16, 39, 20, 30, 11, 28

- [ ] A) 29.5
- [ ] B) 25
- [ ] C) 24
- [ ] D) 20
- [ ] E) 22.875

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48 Ffion scores 19, 8, 12, 6 in 4 games. Ffion wants a mean score of 11 over 5 games. What must Ffion score in the last game?

- [ ] A) 11
- [ ] B) 9
- [ ] C) -1
- [ ] D) 55
- [ ] E) 10

---

49 The mean score in 5 games is 8. After one more game the mean score is 10. What was the score in the last game?

- [ ] A) 20
- [ ] B) 19
- [ ] C) 10
- [ ] D) 21
- [ ] E) 60

---

50 The values for points scored in netball matches are 39, 18, 3, 43, 42. What is the mean?

- [ ] A) 28
- [ ] B) 30
- [ ] C) 29
- [ ] D) 145
- [ ] E) 39

---

51 What is the median of these 8 numbers? 36, 20, 10, 4, 16, 18, 6, 16

- [ ] A) 15
- [ ] B) 10
- [ ] C) 15.75
- [ ] D) 16
- [ ] E) 17

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52 Dylan scores 7, 7, 10, 6 in 4 games. Dylan wants a mean score of 7 over 5 games. What must Dylan score in the last game?

- [ ] A) 35
- [ ] B) 5
- [ ] C) 6
- [ ] D) 7
- [ ] E) -2

---

53 Here are some numbers: 4, 5, 10, 26, 28, 5. What is the range?

- [ ] A) 7.5
- [ ] B) 28
- [ ] C) 32
- [ ] D) 24
- [ ] E) 4

---

54 The mean score in 3 tests is 18. After one more test the mean score is 15. What was the score in the last test?

- [ ] A) 15
- [ ] B) 6
- [ ] C) 5
- [ ] D) 60
- [ ] E) 27

---

55 The values for the ages of members of a swimming club are 46, 47, 34, 22, 48, 31. What is the mean?

- [ ] A) 39
- [ ] B) 40
- [ ] C) 45.6
- [ ] D) 228
- [ ] E) 38

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56 Rhys scores 11, 14, 7, 15, 14, 8 in 6 games. Rhys wants a mean score of 10 over 7 games. What must Rhys score in the last game?

- [ ] A) 1
- [ ] B) 10
- [ ] C) 70
- [ ] D) 11
- [ ] E) 9

---

57 Here are some numbers: 10, 2, 7, 7, 24, 33, 6. What is the range?

- [ ] A) 33
- [ ] B) 2
- [ ] C) 35
- [ ] D) 31
- [ ] E) 7

---

58 The mean score in 5 games is 21. After one more game the mean score is 20. What was the score in the last game?

- [ ] A) 15
- [ ] B) 20
- [ ] C) 16
- [ ] D) 120
- [ ] E) 14

---

59 The values for books borrowed each week are 18, 56, 34, 20. What is the mean?

- [ ] A) 27
- [ ] B) 33
- [ ] C) 128
- [ ] D) 31
- [ ] E) 32

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60 What is the median of these 10 numbers? 29, 32, 69, 55, 13, 109, 70, 8, 72, 9

- ☐ A) 32
- ☐ B) 43.5
- ☐ C) 42.5
- ☐ D) 61
- ☐ E) 46.6

---

61 Callum scores 53, 31, 30, 48, 28, 35, 38 in 7 games. Callum wants a mean score of 39 over 8 games. What must Callum score in the last game?

- ☐ A) 54
- ☐ B) 50
- ☐ C) 49
- ☐ D) 312
- ☐ E) 39

---

62 The mean score in 8 tests is 29. After one more test the mean score is 28. What was the score in the last test?

- ☐ A) 20
- ☐ B) 252
- ☐ C) 21
- ☐ D) 28
- ☐ E) 19

---

63 The numbers of books read by six pupils are: 2, 3, 3, 4, 5 and 5. Calculate the mean number of books read, giving your answer to two decimal places.

(2)

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Mark scheme · 2.103 Mean, Median, Mode and Range in Depth: 1-hour Pack

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

Question 1

correct option C (21) cao **B1**

Answer: C) 21

Question 2

correct option C (16) cao **B1**

Answer: C) 16

Question 3

correct option D (30) cao **B1**

Answer: D) 30

Question 4

correct option B (21) cao **B1**

Answer: B) 21

Question 5

correct option E (11) cao **B1**

Answer: E) 11

Question 6

correct option C (36) cao **B1**

Answer: C) 36

Question 7

correct option B (32) cao **B1**

Answer: B) 32

Question 8

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

Answer: A) 44

Question 9

correct option C (38) cao **B1**

Answer: C) 38

Question 10

correct option B (64) cao **B1**

Answer: B) 64

Question 11

correct option E (11) cao **B1**

Answer: E) 11

Question 12

correct option A (35) cao **B1**

Answer: A) 35

Question 13

correct option C (61) cao **B1**

Answer: C) 61

Question 14

correct option E (26) cao **B1**

Answer: E) 26

Question 15

correct option B (23) cao **B1**

Answer: B) 23

Question 16

correct option A (56) cao **B1**

Answer: A) 56

Question 17

correct option D (43) cao **B1**

Answer: D) 43

Question 18

correct option E (12) cao **B1**

Answer: E) 12

Question 19

correct option A (37) cao **B1**

Answer: A) 37

Question 20

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

Answer: C) 9

Question 21

correct option D (18) cao **B1**

Answer: D) 18

Question 22

correct option C (67) cao **B1**

Answer: C) 67

Question 23

correct option A (57) cao **B1**

Answer: A) 57

Question 24

correct option E (26) cao **B1**

Answer: E) 26

Question 25

correct option B (16) cao **B1**

Answer: B) 16

Question 26

correct option C (65) cao **B1**

Answer: C) 65

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Question 27

correct option D (12) cao **B1**

Answer: D) 12

Question 28

correct option A (34) cao **B1**

Answer: A) 34

Question 29

correct option B (8) cao **B1**

Answer: B) 8

Question 30

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

Answer: C) 20

Question 31

correct option A (8) cao **B1**

Answer: A) 8

Question 32

correct option D (110) cao **B1**

Answer: D) 110

Question 33

correct option E (35) cao **B1**

Answer: E) 35

Question 34

correct option B (33) cao **B1**

Answer: B) 33

Question 35

correct option C (21.5) cao **B1**

Answer: C) 21.5

Question 36

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

Answer: A) 16

Question 37

correct option E (19) cao **B1**

Answer: E) 19

Question 38

correct option D (35) cao **B1**

Answer: D) 35

Question 39

correct option C (68) cao **B1**

Answer: C) 68

Question 40

correct option D (21) cao **B1**

Answer: D) 21

Question 41

correct option B (30) cao **B1**

Answer: B) 30

Question 42

correct option A (41) cao **B1**

Answer: A) 41

Question 43

correct option C (12) cao **B1**

Answer: C) 12

Question 44

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

Answer: C) 40

Question 45

correct option B (32) cao **B1**

Answer: B) 32

Question 46

correct option A (51) cao **B1**

Answer: A) 51

Question 47

correct option C (24) cao **B1**

Answer: C) 24

Question 48

correct option E (10) cao **B1**

Answer: E) 10

Question 49

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

Answer: A) 20

Question 50

correct option C (29) cao **B1**

Answer: C) 29

Question 51

correct option D (16) cao **B1**

Answer: D) 16

Question 52

correct option B (5) cao **B1**

Answer: B) 5

Question 53

correct option D (24) cao **B1**

Answer: D) 24

Question 54

correct option B (6) cao **B1**

Answer: B) 6

Question 55

correct option E (38) cao **B1**

Answer: E) 38

Question 56

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

Answer: A) 1

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Question 57

correct option D (31) cao **B1**

Answer: D) 31

Question 58

correct option A (15) cao **B1**

Answer: A) 15

Question 59

correct option E (32) cao **B1**

Answer: E) 32

Question 60

correct option B (43.5) cao **B1**

Answer: B) 43.5

Question 61

correct option C (49) cao **B1**

Answer: C) 49

Question 62

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

Answer: A) 20

Question 63

Total seen: 2+3+3+4+5+5 = 22 or equivalent **M1**

Mean = 22/6 = 3.666... => 3.67 to 2 d.p. cao **A1**

Answer: 3.67 (mean = 22/6 = 3.666..., rounded to 3.67).

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