Worksheet: Tales by Dots and Lines

IGCSE · Class 8 · Mathematics · 8 questions · 12 marks

Name: _____ Date: _____ Score: _____ / 12

Q1. The mean of a set of 15 values is 134. What is the sum of the data? *[1 mark]*

A) 149

B) 119

C) 8.93

D) 2010

Q2. The mean of the first 50 odd numbers 1, 3, 5, …, 99 is: *[1 mark]*

A) 25.5

B) 100

C) 49.5

D) 50

Q3. A class of 24 students has an average height of 150.2 cm, but every measurement included 1 cm of shoe. What is the correct average height? *[1 mark]*

A) Insufficient information

B) 149.2 cm

C) 126.2 cm

D) 150.2 cm

Q4. In a group, one person loses 2 kg and two people each gain 1 kg. What happens to the group's mean weight and median weight? *[1 mark]*

A) Mean unchanged; median cannot be determined

B) Both cannot be determined

C) Both unchanged

D) Mean increases; median unchanged

Q5. The median of 8, 10, 19, 23, 26, 34, 40, 41, 41, 48, 51, 55, 70, 84, 91, 92 is 41. Which single value can be added without changing the median? *[1 mark]*

A) Any value at all

B) Only a value greater than 41

C) Only a value equal to 41

D) Only a value less than 41

Q6. A dot plot shows 25 values whose deviations from 17 add up to +18. What is the mean? *[1 mark]*

A) 18

B) 17

C) 17.18

D) 17.72

Q7. The family sizes reported by a class are 3 (3 students), 4 (11), 5 (9), 6 (7), 7 (3), 8 (1), 9 (1), 10 (1). Find the mean and median family size, and explain why (3 + 4 + 5 + 6 + 7 + 8 + 9 + 10) ÷ 8 = 6.5 is wrong. *[3 marks]*

Q8. Fill in the blanks so that the mean of 3, 11, ___, ___, 15, 6 is 6.5. How many possibilities exist if only counting numbers are allowed? *[3 marks]*