

# Arithmetic Mean



**ADVANCED**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_/\_\_\_\_

**Key Formula: Mean = Sum of all observations ÷ Number of observations | Range = Highest value – Lowest value**

## Section A: Challenge Problems

**Q1.** The mean of 5 numbers is 20 and the mean of 3 other numbers is 12.

Find the mean of all 8 numbers combined. (5 marks)

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**Q2.** The mean monthly rainfall for a year is 4.2 cm. The total rainfall for the first

8 months is 38.4 cm. Find the mean rainfall for the remaining 4 months. (5 marks)

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**Q3.** Three numbers are in the ratio **2 : 3 : 5**. Their mean is 40. Find the three numbers. (5 marks)

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**Q4. (Open-ended)** Collect data on the number of glasses of water you drink each day for one week. Calculate the mean, range, and identify days above and below the mean.

Write a 3-sentence interpretation of your data. (5 marks)

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**Q5.** The mean of a data set of 6 values is 15. If you add a 7th value of 29,

without recalculating the full sum, find the new mean. Show your method. (5 marks)

