CLASS 8 MATHS REVISION NOTES

# Revision Notes for Class 8 Maths Chapter 12: Tales by Dots and Lines

Condensed revision notes for Class 8 Maths Chapter 12: Tales by Dots and Lines - Ganita Prakash.

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**Mean** (average) = sum of all values ÷ number of values.

**Mean of first n natural numbers** = (n+1)/2. **Mean of first n odd numbers** = n.

**Median:** the middle value of a sorted data set. For odd count n, it's the ((n+1)/2)th term. For even count n, it's the average of the (n/2)th and (n/2+1)th terms.

**Effect of adding a value:** adding a value above the current mean increases the mean; below it, decreases the mean; equal to it, leaves the mean unchanged.

**Effect on median:** unlike the mean, the median depends only on rank/position, not exact size — so it's much less sensitive to outliers than the mean.

**Dot plot:** a simple chart showing each data value as a dot above a number line, useful for quickly seeing spread and repeated values.

**Line graph:** connects data points with straight lines, ideal for showing how a quantity changes over time.

**Combined mean** of two groups = (sum of group 1 + sum of group 2) ÷ (count 1 + count 2) — NOT simply the average of the two group means unless the groups are equal size.

**Outliers** (unusually large/small values) can distort the mean significantly while barely affecting the median — this is why median is often preferred for skewed real-world data like income or house prices.

**Reading graphs critically:** always check what a graph actually shows (and doesn't show) before accepting a claim based on it — a graph about lighting sources says nothing about power cuts, for example.

**More on this chapter:** NCERT Solutions for Class 8 Maths Chapter 12 | Extra Questions for Class 8 Maths Chapter 12 | Class 8 Maths Book | Formulas Handbook