Answer on Question #82000 - Math - Statistics and Probability

Question

Find the variance and standard deviation of ungrouped data in which n = 15, $\sum (x_i - \overline{x})^2 = 48$, $\overline{x} = 10$.

Solution

Find the variance of ungrouped data

$$\sigma^2 = \frac{\sum (x_i - \overline{x})^2}{n} = \frac{48}{15} = 3.2$$

Find the standard deviation

$$\sigma = \sqrt{variance} = \sqrt{3.2} \approx 1.789$$