Problem​ ​Statement​ ​1:

You survey households in your area to find the average rent they are paying. Find the

standard deviation from the following data: $1550,​ ​$1700,​ ​$900,​ ​$850,​ ​$1000,​ ​$950

Solution:

**Step 1: Identify the Mean:**

Mean = (1550+1700+900+850+1000+950)/6 = 1158.33

**Step 2: Identify the Variance:**

Var = ((1550-1158.33)^2+(1700-1158.33)^2+(900-1158.33)^2+(850-1158.33)^2+(1000-1158.33)^2+(950-1158.33)^2)/6

= (153405.389 + 293406.389 + 66734.3889 + 95067.3889 + 25068.3889 + 43401.3889) / 6

= 677083 / 6

= 112847.167

**Step 3: Identify the Standard Deviation:**

SD = Sqrt (Variance) = Sqrt (112847.167)^2

SD = 335.927

Therefore the **Standard Deviation for the Data Set is 335.927**