**LSS: Standard Deviation Exercise – labeled s for sample, σ (Sigma) for population**

**Case 1**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Variable** | | **Deviation** | **Squared** |  |  |  |  |
| **Obs** | **Value** | | **from Mean** | **Deviation** |  |  |  |  |
| 1 | 5 | |  |  |  |  |  |  |
| 2 | 6 | |  |  |  |  |  |  |
| 3 | 7 | |  |  |  |  |  |  |
| 4 | 8 | |  |  |  |  | Sum of Squared | |
| 5 | 9 | |  |  |  |  | Deviations (SSD) | |
| **Sum =** |  | |  |  |  |  |  |  |
| **Mean =** |  | |  |  |  |  | Mean Squared | |
|  |  | |  |  |  |  | Deviation (MSD = SSD/n-1)) | |
|  |  | Standard Deviation = Square Root of MSD = | | | | |  |  |

**Case 2**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Variable** | | **Deviation** | **Squared** |  |  |  |  |
| **Obs** | **Value** | | **from Mean** | **Deviation** |  |  |  |  |
| 1 | 5 | |  |  |  |  |  |  |
| 2 | 8 | |  |  |  |  |  |  |
| 3 | 11 | |  |  |  |  |  |  |
| 4 | 14 | |  |  |  |  | Sum of Squared | |
| 5 | 17 | |  |  |  |  | Deviations (SSD) | |
| **Sum =** |  | |  |  |  |  |  |  |
| **Mean =** |  | |  |  |  |  | Mean Squared | |
|  |  | |  |  |  |  | Deviation (MSD = SSD/n-1) | |
|  |  | Standard Deviation = Square Root of MSD = | | | | |  |  |

What do the two standard deviation values tell us about the respective datasets?