**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?