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| Do Now |
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| Vocabulary |
| Variance  Standard Deviation |
| Steps to Calculate Standard Deviation |
| 1.  2.  3.  4.  5. |
| Examples  Find the standard deviation of five hourly pay values: {$6, $6.50, $7, $7, $7.50}  Step 1: Find the mean:   |  |  |  | | --- | --- | --- | | Data Value (x) | Deviation from the Mean | Square Deviation | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |  |  |  |   Step 4: Find the average of the square deviations (called the variance)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Step 5: The standard deviation is the square root the variance.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Empirical Rule |
| When a distribution is bell-shaped (or normal), the empirical rule states that the standard deviation  has the following characteristics:  http://cwx.prenhall.com/bookbind/pubbooks/esm_sincich_pracstats_2/chapter7/medialib/Image386.gif |