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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

06 - Standard Deviation and the Normal Model

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|  |  |  |  |  |  |  |  |  |  |  |  |  | 1  N |  | 2  Z |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | O |  | S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 3  S |  | 4  E | M | P | I | R | I | C | A | L | R | U | L | E |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | T |  |  |  |  |  | M |  | O |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | A |  |  |  |  |  | A |  | R |  | 5  P |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | N |  |  |  |  |  | L |  | E |  | A |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | D |  |  |  |  |  | P |  |  |  | 6  R | E | S | C | A | L | I | N | G |  |  |  |  |
|  |  |  |  |  |  |  | A |  | 7  S |  |  |  | R |  | 8  V |  | A |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | R |  | T |  |  |  | O |  | A |  | 9  M | E | A | N |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | D |  | A |  |  |  | B |  | R |  | E |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | D |  | N |  | 10  S | T | A | T | I | S | T | I | C |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | E |  | D |  |  |  | B |  | A |  | E |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | V |  | A |  |  |  | I |  | 11  N | O | R | M | A | L |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | I |  | R |  |  |  | L |  | C |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 12  S | T | A | N | D | A | R | D | I | Z | E | D | V | A | L | U | E |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | T |  |  |  |  |  | T |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | I |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | O |  |  |  |  |  | P |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | N |  |  |  |  |  | L |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Across**  **4.** In a Normal model, about 68% of the values within 1 standard deviation of the mean, about 95% within 2 standard deviations, and about 99.7% within 3 standard deviations.  **6.** The process of multiplying each value by a constant that multiplies both the measures of position and measures of spread by that constant.  **9.** center of the Normal model.  **10.** Numerical attribute of a set of data.  **11.** model used for certain unimodal, symmetric distributions.  **12.** The value found by subtracting the mean and dividing by the standard deviation. | **Down**  **1.** Display to help assess whether a distribution of data is approximately Normal.  **2.** Tells how many standard deviations a value is from the mean.  **3.** The square root of the variance.  **5.** Numerical attribute of a model.  **7.** Type of Normal model with mean 0 and standard deviation 1.  **8.** The sum of the squared deviations from the mean, divided by the count minus one. |