

Warm-up #12

1-3 Use the 68-95-99.7 rule. The age of a homeowner in Sun City is normally distributed with a mean age of 71 years and a standard deviation of 4 years.

- 1) What percent of the homeowners in Sun City are older than 83?

- 2) What percent of the homeowners in Sun City are younger than 67?

- 3) What percent of the homeowners in Sun City are between 71 and 79 years old?

4-6 Use the z-chart. The age of a homeowner in Sun City is normally distributed with a mean age of 71 years and a standard deviation of 4 years.

- 4) What percent of the homeowners in Sun City are older than 77.8?

- 5) What percent of the homeowners in Sun City are younger than 67.6?

- 6) What percent of the homeowners in Sun City are between 72.2 and 81 years old?

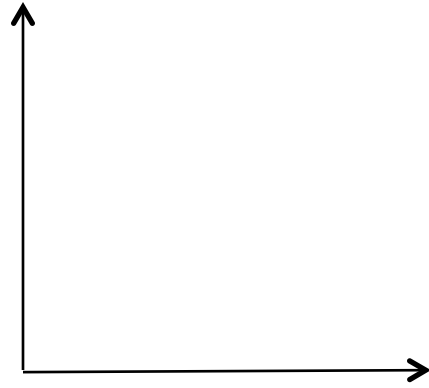
7) Find the standard deviation of the given set of numbers without using the STAT button: 6, 8, 9, 15, 17

$$s = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

x	$x - \bar{x}$	$(x - \bar{x})^2$

8-11 Refer to the table that shows the number of hours per week a person sleeps and their age.

Age	Hours Sleeping
15	70
25	65
35	52
45	46
55	37



8) Draw a scatter plot using your graphing calculator.

9) Find r

10) Write the regression equation.

11) Based on your equation, how many hours would a 18 year old sleep per week?

12-17 Refer to the frequency chart.

Data Item	Frequency
5	7
7	3
9	4
12	2

12) Find the mean

13) Find the median

14) Find the mode

15) Find the midrange

16) Find the range

17) Find the standard deviation