

**TRUE!** by Daryl Cagle



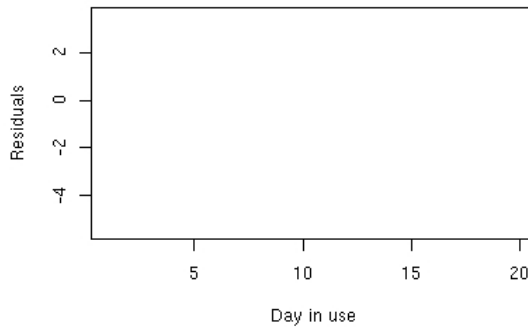
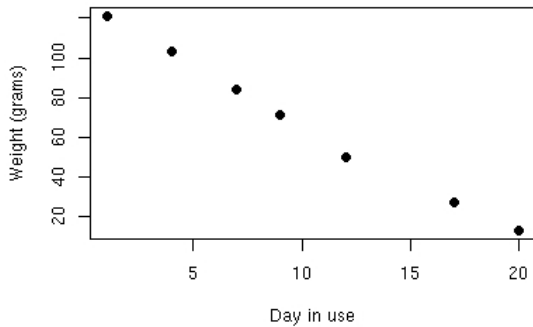
The average Frenchman uses only two bars of soap per year.

**Question:** How long does a bar of soap last?

**Data Collection:** A high school student in Australia performed the following observational study. He bought a new bar of soap and used it in his shower. Periodically he weighed the bar over a course of approximately three weeks.

**Data:**

Day in use	1	4	7	9	12	17	20
Weight (grams)	121	103	84	71	50	27	13



$r = -0.997$   
 $s_x = 6.83, s_y = 39.4$   
 $\bar{x} = 10, \bar{y} = 67$

$b_1 =$   
 $b_0 =$   
 $R^2 =$

The regression equation is \_\_\_\_\_.

Draw the regression line on the plot.

Plot the residuals against the explanatory variable.

How would you describe the fit?

Predict the weight of the soap at 25 days. Would you believe that it will weight this?