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# 7.R Review Questions

### 7.R.R1

1/1 point (graded)

Load the data from the file 7.R.RData, and plot it using plot(x,y). What is the slope coefficient in a linear regression of y on x (to within 10%)?

-0.6748

**✓ Answer:** -0.6748

-0.6748

#### **Explanation**

The slope is negative for most of the data, and the coefficient reflects that.

Submit

**1** Answers are displayed within the problem

## 7.R.R2

1/1 point (graded)

For the model  $y \sim 1+x+x^2$ , what is the coefficient of x (to within 10%)?

77.7

**✓ Answer:** 77.7

77.7

#### **Explanation**

Despite the fact that the overall slope is slightly negative, the linear term is very positive. Because the values of x are far from zero, a large linear term is needed to offset the quadratic term; otherwise the slope would be very negative in the

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range of the data. This is why we usually do not interpret the lower-order terms in a polynomial regression.

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**1** Answers are displayed within the problem

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