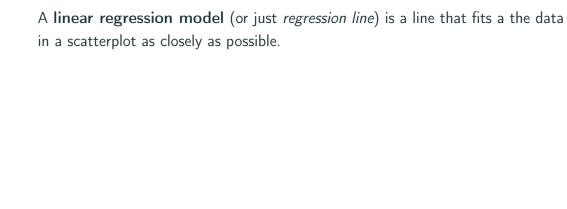
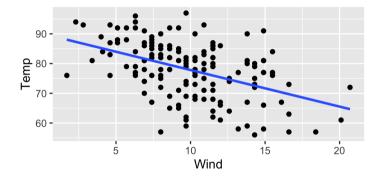
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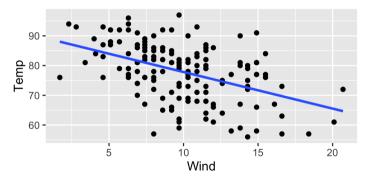
Simple linear regression in R



A **linear regression model** (or just *regression line*) is a line that fits a the data in a scatterplot as closely as possible. Here's an example using R's built-in airquality data set.



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Remember, a regression model like this is only appropriate if the data has an approximately linear shape. If it doesn't, then other techniques are needed.

Use R to answer the following questions about the airquality data set, using Wind as the explanatory variable and Temp as the response variable.

1. Find the equation of the regression line.

2. Use this equation to predict the temperature on a day when the observed wind speed is 8 mph.

3. Determine the residual of the observation in this set with a wind speed of 8 mph and a temperature of 72° Fahrenheit.