Chapter 9

# Try It Yourself: Compute a Correlation and Fit a Regression Line

## Excel Instructions

Create a Scatterplot for bill\_depth\_mm and flipper\_length\_mm:

1. Open the penguins.csv dataset.
2. Select columns D and E
3. Click “Insert” tab -> Charts -> Insert Scatter (X, Y) or Bubble Chart -> Scatter
4. Right-click the plot -> “Select Data…”
5. Click “Edit”
6. Set appropriate axes
   1. Series X values -> =penguins!$E$2:$E$334
   2. Series Y values -> =penguins!$D$2:$D$334
7. Click “OK”
8. Click “OK”
9. Click the plus sign to add elements to the plot -> Check “Trendline”
10. Adjust style of the line and range of the axes.

Compute a Correlation:

1. Open the penguins.csv dataset.
2. Click “Data” tab
3. Click “Data Analysis”
4. Click “Correlation”
5. Click “OK”
6. Input Range → select all data in the bill\_depth\_mm and flipper\_length\_mm columns (D2:E334)
   1. Your data selection can include more than these two columns as long as it contains at least these two.
   2. Be sure that your data selection does not include any non-numeric values.
7. Click “OK”
8. The correlation is in Cell B3.

Fit a Regression Line:

1. Open the penguins.csv dataset.
2. Click “Data” tab
3. Click “Data Analysis”
4. Click “Regression”
5. Input Y Range → select all data in the bill\_depth\_mm column D2:D334
6. Input X Range → select all data in the flipper\_length\_mm column E2:E334
   1. Be sure that your columns do not contain any missing values!
7. Click “OK”
8. Observe the slope coefficient in cell B18.