⚠ System maintenance is scheduled for Thursday, March 29, 2018 from 14:00-16:00 UTC. Courses might not be available during this time.

edX

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Lab Instructions
Lab: Exploring Data

In this lab, you'll have a chance to put some of the principles and techniques you've seen in the course into practice. To complete the lab:

1. Ensure you have the necessary software. You need a Windows PC or a Mac, with Microsoft Excel 2016 installed. If you don't have Excel 2016, you can sign up for a free trial of Microsoft Office 365 at http://aka.ms/edx-dat101x-o365 and install the Office applications.

2. Download and extract the lab files for this course from dat101x-labs.

3. Follow the instructions in the lab document, which you can download from dat101x-labdoc.

4. Answer the verification questions below. You can attempt each question only twice, so make sure you've performed the tasks in the lab carefully before answering!

This assessment is ungraded, but you should use it to test your basic skills in working with data in Excel. Later courses in the curriculum include labs with assessments like this that are graded, and in which you may be restricted to only one attempt per question; so use this lab as practice, and try to the questions carefully and answer correctly in as few attempts as possible.

If you have any questions about grading or specific questions, please post them in the course discussion forum. However, please avoid posting any information that will reveal answers to your fellow students. In the event of a dispute, the decision of the course staff is final.

Total Revenue

1/1 point (ungraded)
What was the total revenue for the summer?

| 2138 | ✔ |

| **2138** |

Submit   You have used 1 of 2 attempts

Highest and Lowest Temperatures

2/2 points (ungraded)
What was the highest temperature recorded?

84   ✔

84

What was the lowest temperature recorded?

70   ✔

70

Submit   You have used 1 of 2 attempts

Revenue Line Chart

1/1 point (ungraded)
Based on your chart showing revenue by date, revenue is:
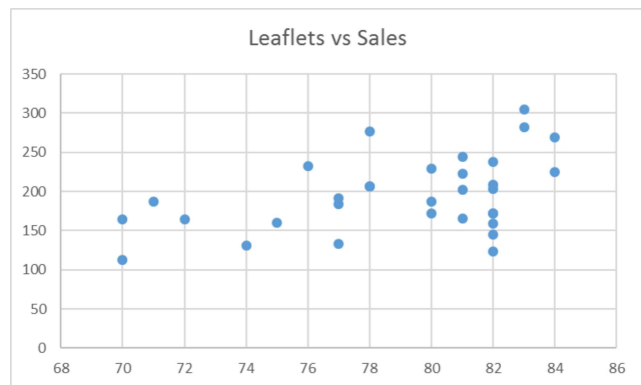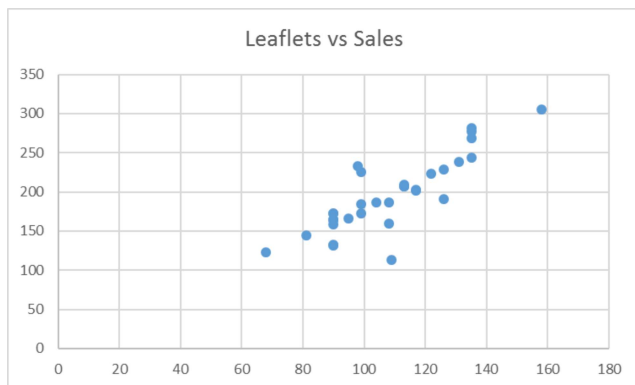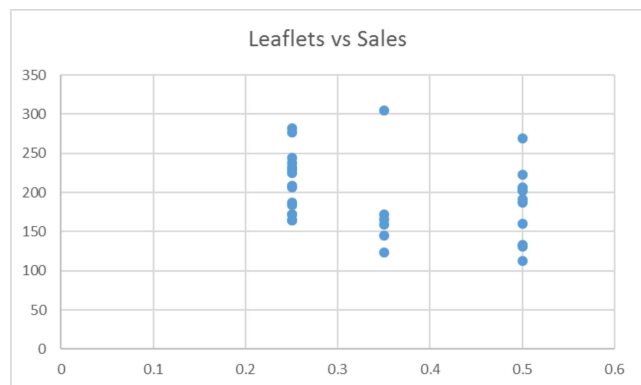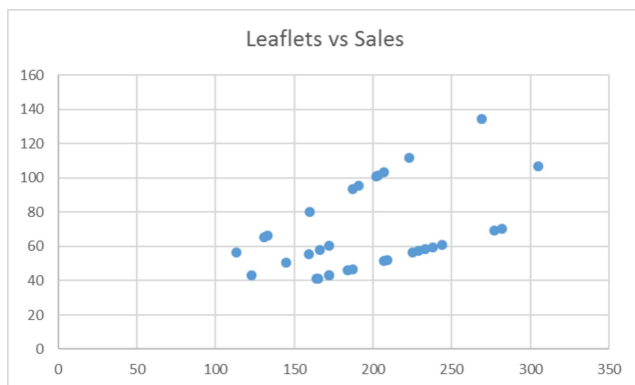
rising   ▼   ✔

Submit   You have used 1 of 2 attempts

Leaflets vs Sales Scatter-Plot Chart

1/1 point (ungraded)
Which of the following charts most closely resembles the scatter-plot chart you created for
Leaflets vs Sales?

Chart A

Chart B

Chart C

Chart D

○ Chart A

○ Chart B

◉ Chart C ✔

○ Chart D

Submit　　　　You have used 2 of 2 attempts

Revenue Histogram

1/1 point (ungraded)

The histogram showing revenue divided into 10 bins reveals the distribution curve of the data to be:

○ Normal

◉ Right-Skewed ✔

○ Left-Skewed

| Submit | You have used 2 of 2 attempts |

Descriptive Statistics

2/2 points (ungraded)
What is the mean of the Temperature column (rounded to 2 decimal places)?

78.87   ✔

78.87

What is the standard deviation of the Leaflets column (rounded to 2 decimal places)

19.82   ✔

19.82

| Submit | You have used 2 of 2 attempts |

✔ Correct (2/2 points)

Correlation

1.2/2.0 points (ungraded)
Which two of the following statements are true based on the correlations you have calculated?

☑ There is a strong positive correlation between leaflet distributions and sales.

☑ There is a moderate positive correlation between price and sales.

☐ There is a moderate negative correlation between price and sales.

☐ There is a moderate negative correlation between temperature and sales.

☐ There is a strong negative correlation between leaflet distributions and sales.

✱

Note: Make sure you select all of the correct options—there are TWO!

Submit   You have used 2 of 2 attempts

Comparing Flavor Sales

1/1 point (ungraded)
The difference in Lemon and Orange sales is:

Statistically significant   ▼   ✔

Submit   You have used 1 of 2 attempts

✔ Correct (1/1 point)

Regression

2/2 points (ungraded)
Based on the function generated by regression, what is the predicted value for sales (to the nearest whole number) when the following feature values are used:

- Temperature: 80

- Leaflets: 110

- Price: 0.35

203   ✔

203

To the nearest whole number, what is the predicted value for Sales when the number of leaflets is increased to 120

222 ✔

222

Submit   You have used 1 of 2 attempts

✔ Correct (2/2 points)

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