Congratulations! You passed!

Grade received 66.66% **To pass** 66% or higher

Go to next item

Introduction to Data Visualization Tools

Latest Submission Grade 66.66%

1. Matplotlib was created by **1 / 1 point**

- ○ Daniel Johnson, a German physicist.
- ○ Cleve Moler, an American mathematician and computer programmer.
- ◉ John Hunter, an American neurobiologist.
- ○ John Butler, an American psychologist.
- ○ James Gosling, a Canadian computer scientist.

Correct
Correct.

2. Using the notebook backend, you can modify a figure after it is rendered. **1 / 1 point**

- ◉ True.
- ○ False.

Correct
Correct. You can modify a figure after it is rendered using the notebook backend.

3. **%matplotlib inline** is an example of Matplotlib magic functions. **0 / 1 point**

- ○ True.
- ◉ False.

Incorrect
Incorrect. %matplotlib inline is an example of Matplotlib magic functions.

Congratulations! You passed!

Grade received 66.66% **To pass** 66% or higher

Go to next item

Basic Visualization Tools

Latest Submission Grade 66.66%

1. Area plots are stacked by default. **1 / 1 point**

- (•) True
- ( ) False

Correct
Correct.

2. The following code will create a histogram of a *pandas* series, **series_data**, and align the bin edges with the horizontal tick marks. **0 / 1 point**

```
count, bin_edges = np.histogram(series_data)
series_data.plot(kind='hist', xticks = count, bin_edges)
```

- (•) True.
- ( ) False.

Incorrect
Incorrect. The parameter xticks should be equal to bin_edges only.

3. Given a *pandas* dataframe, **question**, which of the following will create a horizontal bar chart of the data in **question**? **1 / 1 point**

- ( )
```
question.plot(type='bar', rot=90)
```
- ( )
```
question.plot(kind='bar', orientation='horizontal')
```
- (•)
```
question.plot(kind='barh')
```

2. The following code will create a histogram of a *pandas* series, **series_data**, and align the bin edges with the horizontal tick marks. **0 / 1 point**

```
count, bin_edges = np.histogram(series_data)
series_data.plot(kind='hist', xticks = count, bin_edges)
```

- (●) True.
- ( ) False.

Incorrect
Incorrect. The parameter xticks should be equal to bin_edges only.

3. Given a *pandas* dataframe, **question**, which of the following will create a horizontal bar chart of the data in **question**? **1 / 1 point**

- ( )
```
question.plot(type='bar', rot=90)
```
- ( )
```
question.plot(kind='bar', orientation='horizontal')
```
- (●)
```
question.plot(kind='barh')
```
- ( )
```
question.plot(kind='bar')
```
- ( )
```
question.plot(kind='bar', type='horizontal')
```

Correct
Correct.

Congratulations! You passed!

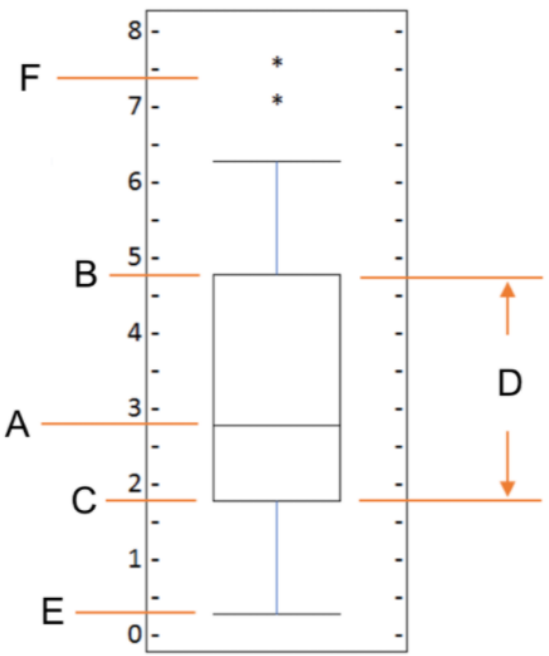
Grade received 100% **To pass** 66% or higher

Go to next item

Specialized Visualization Tools

Latest Submission Grade 100%

1. 1 / 1 point



What do the letters in the box plot above represent?

- ○ A = Mean, B = Third Quartile, C = First Quartile, D = Inter Quartile Range, E = Minimum, and F = Maximum
- ◉ A = Median, B = Third Quartile, C = First Quartile, D = Inter Quartile Range, E = Minimum, and F = Outliers
- ○ A = Median, B = Third Quartile, C = Mean, D = Inter Quartile Range, E = Lower Quartile, and F = Outliers
- ○ A = Mean, B = Upper Mean Quartile, C = Lower Mean Quartile, D = Inter Quartile Range, E = Minimum, and F = Outliers
- ○ A = Mean, B = Third Quartile, C = First Quartile, D = Inter Quartile Range, E = Minimum, and F = Outliers

What do the letters in the box plot above represent?

- A = Mean, B = Third Quartile, C = First Quartile, D = Inter Quartile Range, E = Minimum, and F = Maximum
- A = Median, B = Third Quartile, C = First Quartile, D = Inter Quartile Range, E = Minimum, and F = Outliers
- A = Median, B = Third Quartile, C = Mean, D = Inter Quartile Range, E = Lower Quartile, and F = Outliers
- A = Mean, B = Upper Mean Quartile, C = Lower Mean Quartile, D = Inter Quartile Range, E = Minimum, and F = Outliers
- A = Mean, B = Third Quartile, C = First Quartile, D = Inter Quartile Range, E = Minimum, and F = Outliers

Correct
Correct.

2. What is the correct combination of function and parameter to create a box plot in Matplotlib? **1 / 1 point**

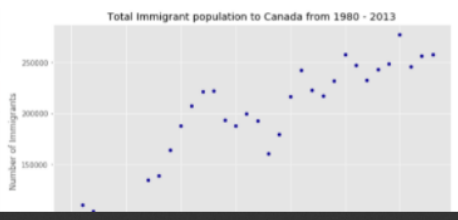
- Function = boxplot, and Parameter = type with value = "plot"
- Function = box, and Parameter = type with value = "plot"
- Function = plot, and Parameter = kind with value = "box"
- Function = plot, and Parameter = kind with value = "boxplot"
- Function = plot, and Parameter = type with value = "box"

Correct
Correct.

3. Which of the lines of code below will create the following scatter plot, given the *pandas* dataframe, df_total? **1 / 1 point**

df_total

year	total
1980	99137
1981	110563
1982	104271
1983	75550
1984	73417



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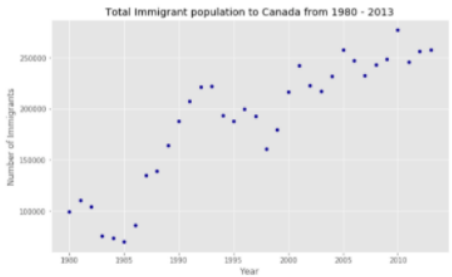
df_total

year	total
1980	99137
1981	110563
1982	104271
1983	75550
1984	73417
.	.
.	.
2013	258654




```
import matplotlib.pyplot as plt

df_total.plot(type='scatter', x='year', y='total')

plt.title('Total Immigrant population to Canada from 1980 - 2013')
plt.label ('Year')
plt.label('Number of Immigrants')
```

```
import matplotlib.scripting.pyplot as plt

df_total.plot(type='scatter', y='year', x='total')

plt.title('Total Immigrant population to Canada from 1980 - 2013')
plt.xlabel ('Year')
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plt.xlabel ('Year')
plt.ylabel('Number of Immigrants')
```

```
import matplotlib.pyplot as plt

plot(kind='scatter', x='year', y='total', data=df_total)

plt.title('Total Immigrant population to Canada from 1980 - 2013')
plt.label ('Year')
plt.label('Number of Immigrants')
```

```
import matplotlib.scripting.pyplot as plt

df_total.plot(kind='scatter', x='year', y='total')
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