

matplotlib_scatter_graphs_workbook

September 21, 2020

1 MATPLOTLIB SCATTER GRAPHS WORKBOOK

Have a go at the following questions to practice your new found skills.

If you have any questions, go back to the course videos and have another look. One version of the answers is available in the next download. Remember, there are different ways to write code to get the same answer, so your answer can be correct and different to the answer example!

If you feel stuck and want some in person help, then have a look at the events page to join in a workshop <https://swamphen.co.uk/events>.

```
In [19]: # upload the butterflies data set
```

```
In [20]: # read the butterflies data set in to this colab sheet
```

```
In [21]: # split the data into 3 lists.  
# 0th element is temperature (C), needs to be changed into a float  
# 1st element is wing length (mm), needs to be changed into a float  
# 2nd element is sex, needs to be changed to 0 or 1
```

```
In [22]: # import matplotlib
```

```
In [23]: # create a scatter plot with green dots for temp
```

```
In [24]: # what does this tell you about the data?
```

```
In [25]: # create a scatter plot with red stars for wings
```

```
In [26]: # what does this tell you about the data
```

```
In [27]: #create a scatter plot of temperature against wingspan with blue circles  
# label the axes
```

```
In [28]: # what does this tell you about the data?
```

```
In [29]: # does there look to be any outliers?
```

```
In [30]: # look at the relationship between wingspan and sex with red diamonds  
# add in axis labels
```

```
In [31]: # what does this tell you about the relationship between wingspan and sex
```

In [22]: # does there look to be any outliers?

In [1]: # do any of the points you identified as outliers match between the two graphs?
do you think there are any outliers in this data set?

In []: # are there any other graphs you should plot?