

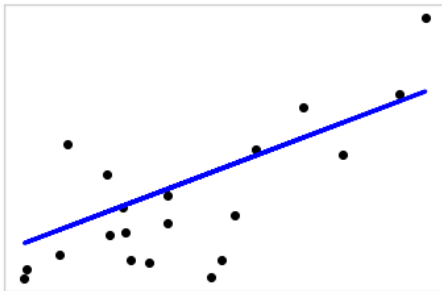
Homework 3 Q&A

Q: How can I show my manual computation?

One most efficient, compact way of showing your manual computation is to show your Excel calculation (snipped or similarly captured) as illustrated below. Here the regression code in https://docs.w3cub.com/scikit_learn/auto_examples/linear_model/plot_ols was used to produce the plot. In the Excel computation image, f1, f2, etc. are the features you should compute, e.g., sum of squares, sum of residuals, etc. whichever you think you should show that you know what you are doing. This illustration is only one option. There are other ways but please make it short.

```
plt.show()
```

```
Coefficients:  
[938.23786125]  
Mean squared error: 2548.07  
Coefficient of determination: 0.47
```

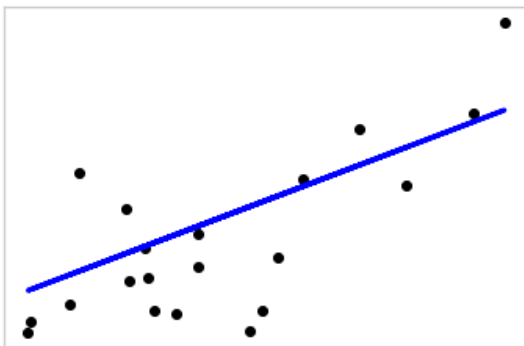


Here is markdown example incorporating a clipped image from Excel.

	X	Y	f1	f2	f3	f4			
a:	2	2	...	...	...	...
b:	3	3	...	...	...	...
c:	4	5	...	...	...	...
d:	6	4	...	...	...	...
sum:	15	14							
mean:	3.75	3.5		slope:		intersept:			

When you embed the snipped image, your markdown cell look different (shown below). Note that you must change the cell to a markdown cell and use `ctrl v` to paste the image acquired using MS Snipping tool off of Excel. It shows the pasting action occurred. Only when you actually run the cell, the image will appear as shown above.

Coefficient of determination: 0.47



Here is markdown example incorporating a clipped image from Excel.
`![[image.png](attachment:8c0391cc-cfd6-4d07-a3ad-c7de85686a83.png)]`

Q: Is the set of data points a set of four 2-dimensional vectors?

There was a typo. The incorrect sentence in Part 1 was $\{ \langle 2, 2 \rangle, \langle 3, 3 \rangle, \langle 4, 5 \rangle, \langle 6, 4 \rangle \}$. It has been revised to “Consider a simple set of data points $\{ \langle 2, 2 \rangle, \langle 3, 3 \rangle, \langle 4, 5 \rangle, \langle 6, 4 \rangle \}$ ” as shown in the latest version HW3. As an answer for Step 1, you should have a plot like:

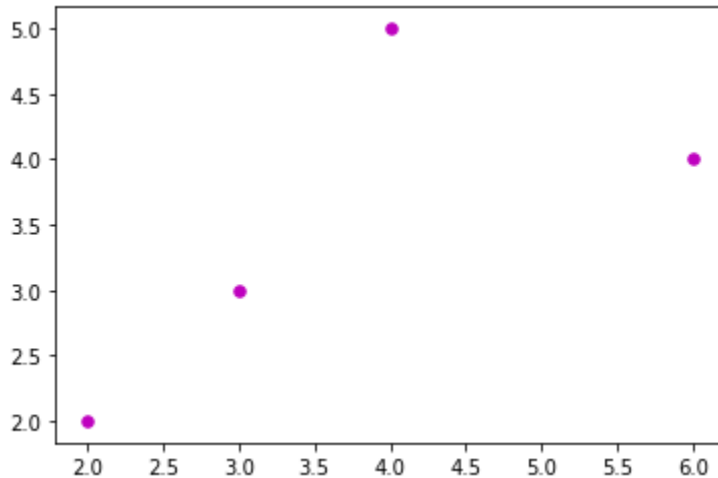


Illustration given in the above Excel screenshot should make the data points (annotated as a, b, c, d) clearer. You are dealing with 4 data points in 2D.