

Lab – week5 – comparing means

1. Downloads

TASK: download the file “**marks.txt**” from Learning Central, save it to your **Home Folder**.

TASK: download the file “**Lab_Week5-Tasks.ipynb**” from Learning Central, save it to your **Home Folder** and upload it to your Jupyter Notebook

2. Comparing means

TASK: Run the first cell to populate the interactive namespace from Python libraries

TASK: Read the given data contained in a text file “**marks.txt**” into a DataFrame. Display the returned DataFrame in your programme.

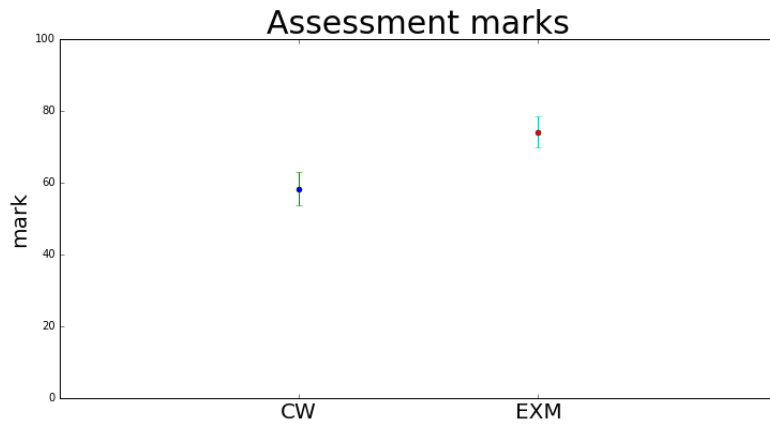
The data set shows the coursework (CW) and exam (EXM) marks of students.

	CW	EXM
0	63	79
1	23	36
2	50	73
3	40	57
4	27	90
5	73	86
6	57	67

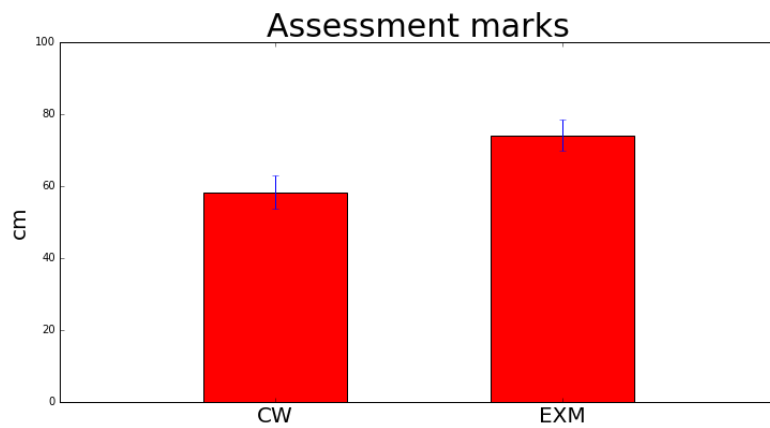
TASK: Write code to compute the mean and 95% confidence interval for each of the variables CW and EXM.

```
sample mean: CW =  
sample mean: EXM =  
95% CI: CW =  
95% CI: EXM =
```

TASK: Write code to visualise the mean and 95% confidence interval for each of the variables CW and EXM in a single graph as shown below.



TASK: Write code to visualise the mean and 95% confidence interval for each of the variables CW and EXM in a single graph as shown below.



TASK: Which of the following conclusions is correct?

- A: There is no difference in students' performance between coursework assessment and exam.
- B. Students' performance in exam is statistically significantly better than their performance in coursework.
- C. Student's performance in coursework is statistically significantly better than their performance in exam.