Homework 2

Due by the end of Thursday, Feb 06, 2025

[Last revision Feb 03, 10:09 PM]

Please complete the following questions

- **Problem set 5**

  - Question 1
  - Question 3
  - Question 4

- **Problem set 6**

  - Question 1
    - The filename of the plot you are asked to create should be called `ps_6_qu_1_linear.pdf` .

  - Question 3
    - The filename of the plot you are asked to create should be called `ps_6_qu_3_sin.pdf` .

  - Question 4

- **Problem set 7**

  - Question 1
  - Question 2
  - Question 3
  - Question 4

Preparing your submission

- Where code is required to answer a question, please put the code for each question in a seperate Python (`.py`) file. The file should be named

```
ps_M_qu_N.py
```

where `M` and `N` should be the problem set number and question number respectively.

- If the question contains multiple parts and you wrote code for each part, you can include all parts in a single Python file. Within the Python file, please clearly label with python comments where that start of each part begins. For example

```
# Answer for Problem set 4, Question 4

# Part 1 (computing derivatives using different approx.)
... code goes here ...

# Part 2 (compute the true error)
... more code goes here ...
```

- I will be running your Python code. Please make sure that code you submit runs.

- Where possible, use `print()` to display the answer to the question.

- All files for homework 2 should be contained with a directory called `YOUR_NAME_homework_2` . Please zip this directory and upload only this zip file to Moodle.