Homework No. 06

Due: 23:59, 22 December, 2023

Max points: 100

Rules

- **No late homeworks.** A penalty of 10 points is applied for each day.
- **No plagiarism.** Collaboration is encouraged, but copying someone else's work without proper attribution is not admitted and invalidates the submission. A penalty is applied to all parties included.

Submission procedure

- Each problem solution should be saved in a separate file. The following naming convention should be used: `problem{number}.{extension}`. For example, `problem1.py` or `problem1.pdf`.
- At the start of each file, homework number, student full name and problem number should be mentioned. For example:

```
"""
Homework 6
Name: John Doe
Problem 1
"""
```

- Solution files should be uploaded to YSU Moodle. Alternatively, you can commit your solutions to a Git repository and provide the repository URL on Moodle.

Problem 1: Build the following numpy arrays [50 points]

1.1 [30 points]

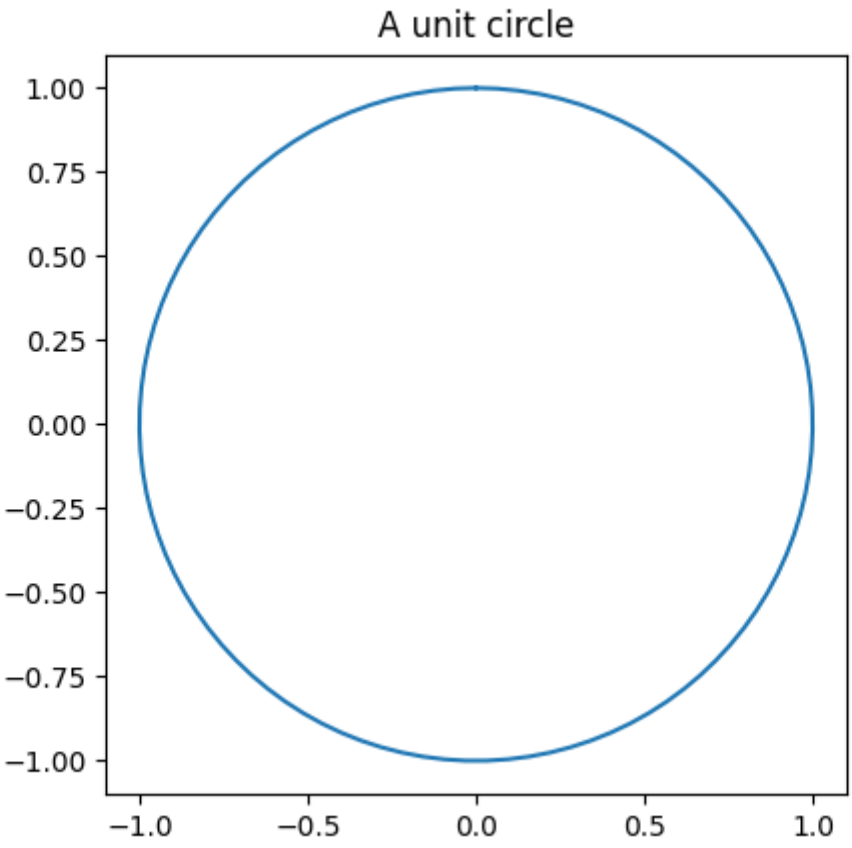
1	1	2	3	4	5	6	7	8	10
1	3	3	4	5	6	7	8	10	10
2	3	5	5	6	7	8	10	10	11
3	4	5	7	7	8	10	10	11	12
4	5	6	7	9	10	10	11	12	13
5	6	7	8	10	11	11	12	13	14
6	7	8	10	10	11	13	13	14	15
7	8	10	10	11	12	13	15	15	16
8	10	10	11	12	13	14	15	17	17
10	10	11	12	13	14	15	16	17	19

1.2 [20 points]

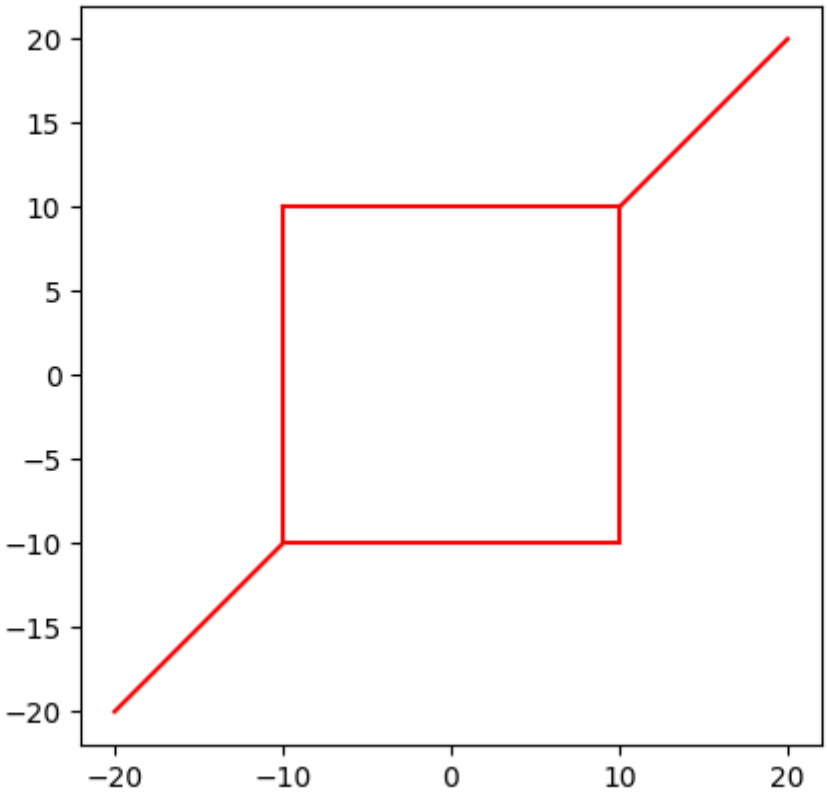
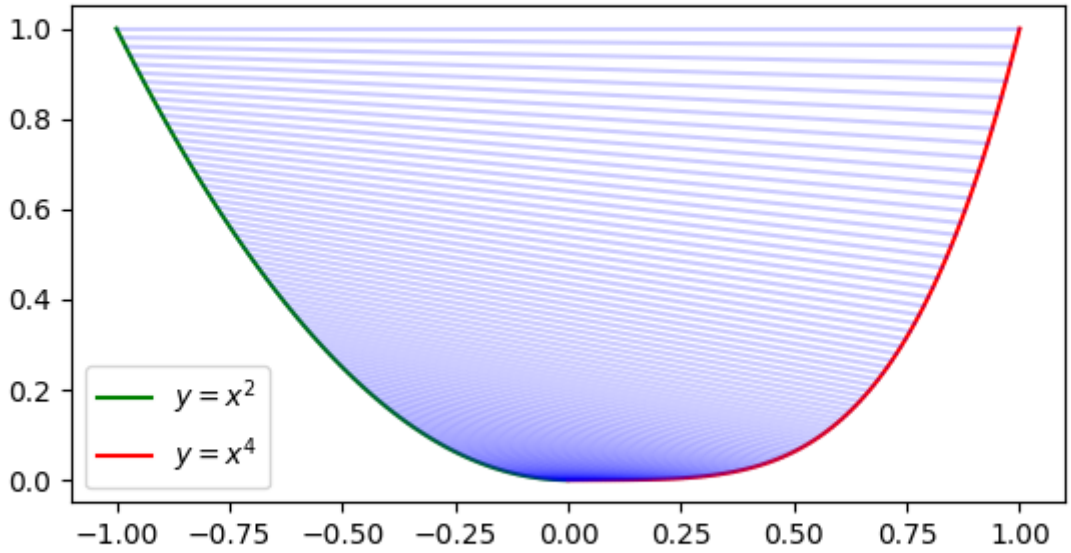
6	6	10	10	6	6
6	0	4	4	0	6
10	4	14	14	4	10
10	4	14	14	4	10
6	0	4	4	0	6
6	6	10	10	6	6

Problem 2: Replicate given plots [50 points]

2.1 [15 points]



2.2 [15 points]



2.3 [20 points]