Lab 1: NumPy

1. Write a NumPy program to create an array of 10 zeros, array of 10 ones, and array of 10 fives.

2. Write a NumPy program to create an array of all **even integers** from 30 to 70.

3. Write a NumPy program to create an array of given shape (5,6) and integer type, **filled with zeros**.

4. Create a 10x10 array with random values and find the minimum and maximum values.

5. Write a NumPy program to create a 3x3 array with values ranging from 2 to 10.

6. Write a NumPy program to create an array of size = 20 using **arrange**, then extract all numbers from a given array greater than 15.

7. Write a NumPy program to combine the two 2-dimensional arrays using **hstack** and **vstack**.
   Array 1: [[0, 1, 3], [5, 7, 9]]
   Array 2: [[0, 2, 4], [6, 8, 10]]

8. Write a NumPy program to create **ones** array of size 10 and change the 6_{th} element to 11.

9. Write a NumPy program to append a value to the end of an array.

10. Write a NumPy program to reverse an array [using two different methods].