Name:d

Collaboration Statement

- Collaboratively interpreting course material is allowed; however, you must complete the homework individually;
- you are not allowed exchange the solution, or procedure to the answer in any form;
- it is strictly forbidden to find reference answer from previous terms; you will be graded zero if found;

Program-based HW submission

If the problem is program-based, in your submission, you shall submit

(1) A written answer, in PDF, include the screenshot of your program output, and a few comments of your solution (especially if your code doesn't function fully)
(2) Your code in .zip file

Non-program based HW submission

If the problem doesn't need a program, you may submit the answer/explanation by hand-writing (submit the scan) or computer typing;

Time report

It is mandatory to report your time spent on completing the homework. It will help the teaching team to further adjust the homework;

- Total time spent on this homework (including study, discussion, and solution writing time, excluding other irrelevant activity time) (XX hr XX min)

Special Statement for HW0 only

This homework is intended to figure out the basic preparation of programming. You may answer using any computer language you are comfortable with.

Recommended ones include:

MATLAB (You can use MATLAB online at: https://www.mathworks.com/products/matlab-online.html/, create/sign-in with your CPP account)

C/C++, Python, Java, Lua, etc. (Online Integrated Development Environment: https://ideone.com/)

Question 1   Array Operation

Initialize an array

$$a = [0, 1, 2, ..., 99, 100]$$

Write a program to:

1. Find the sum of the array a (you must use loop; an existing function like sum() is not allowed)

2. Count how many odd numbers and even numbers in the array a (Again, you cannot use any existing functions). Also, remember, 0 and 1 are not prime numbers.

3. Find all prime numbers in the array. Do not manually type in any known prime numbers except 2. (Hint: you probably want a new array to store all known prime numbers you found)

4. Reverse array a. (i.e., let $a = [100, 99, 98, ..., 1, 0]$). Again, you cannot use any existing reversing functions. You must move the numbers one by one, using loops.

Question 2   Not really a question

When was your last time to write a program to solve a problem? What problem is it? If it was for a Cal Poly course, please also name the course with course number/name.

DO not forget to report the time stamp