

**CS 107: Computer Programming – Sections: 1, 2, 3 – College of Engineering**  
**1433/1434: First Semester; Monday 11/02/1433; Duration: 30 minutes**

**Quiz 2 Solution (2 exercises, 2 pages)**

**Exercise 1 (2 points)**

What is the output of the following code?

```
#include <iostream>
using namespace std;

void printArray(int x[], int n) {
    for (int i = 0; i < n; i++) {
        cout << "x[" << i << "] = " << x[i] << endl;
    }
}

int non(int x[], int n) {
    int c = 0;
    for (int i = 0; i < n; i++) {
        if (x[i] % 2 == 1) {
            c++;
        }
    }
    return c;
}

int main() {
    int x[8];
    int n = 8;
    int p;
    for (int i = 0; i < n; i++) {
        x[i] = i;
    }
    printArray(x, n);
    p = non(x, n);
    cout << "Number of odd numbers in the array = " << p << endl;
    return 0;
}
```

**$x[0] = 0$**

**$x[1] = 1$**

**$x[2] = 2$**

**$x[3] = 3$**

**$x[4] = 4$**

**$x[5] = 5$**

**$x[6] = 6$**

**$x[7] = 7$**

**Number of odd numbers in the array = 4**

### **Exercise 2 (3 points)**

Write a C++ function that returns the position of the first even number in an array of integers of size **n**.

**Example 1:**

`x = {88, 13, 56, 4, 76, 99}`

The function should return 0 which is the position of 88

**Example 2:**

`x = {31, 1, 79, 161, 12, 21, 90}`

The function should return 4 which is the position of 12

**Example 3:**

`x = {7, 11, 5, 177}`

The function should return -1

```
int pofen(int x[], int n) {
    for (int i = 0; i < n; i++) {
        if (x[i] % 2 == 0) {
            return i;
        }
    }
    return -1;
}
```