Important Note: Please write your student number on the back of this page.

APS 105   QUIZ # 2   Computer Fundamentals

Fall 2010   SECTION: 2-3PM   Tuesday, October 12

All quizzes, tests, and exams in this course are **closed book** with **no calculators**.

[10 Marks] Write a complete C program that prompts the user for a positive integer using the message "Give a positive integer:" and computes:

- the number of odd integers between zero and the user provided integer (inclusive)

- the sum of these odd integers

- the average of these odd integers

Your program should output two lines (other than the prompt):

- the first line lists the odd integers between zero and the user provided integer (inclusive), each separated by a space

- the second line lists the three quantities computed, in the order given above, each separated by a comma

Here is an example output from the execution of the program:

```
Give a positive integer:10
1 3 5 7 9
5, 25, 5
```

Note 1: Your program can assume the input is valid (i.e., a positive integer).

Note 2: Your program should **not** make use of arrays.

Place your solution on the back of this page.

Your Solution:

```c
#include <stdio.h>

int main(void)
{
        int num, n = 0, count = 0, sum = 0, avg = 0;

        // Prompt user and read input
        printf("Give a positive integer: ");
        scanf("%d", &num);

        // Check all numbers up to num
        while(n <= num){
                // Check if it is odd
                if( n % 2 != 0){
                        printf("%d ", n);        // Print it
                        count++;                 // Count it
                        sum = sum + n;           // Sum it up
                }
                n++;
        }
        printf("\n");                            // Change line

        if(count > 0){
                avg = sum / count;               // Compute average
        }

        printf("%d, %d, %d\n", count, sum, avg);// Print values

        return 0;
}
```