COEN 10 – Quiz III

Use C.

1. (20 points) What does the code below output?

for(i=0;i<10;i++)

printf("%d",i+2);

2 3 4 5 6 7 8 9 10 11

1. (20 points) What are the numbers in array x after the code below execute, and you type 1 2 3 4 5 6 7 8 9 10. Show how the values in the array change.

for(i=9;i>=0;i--)

scanf("%d",&x[i]);

for(i=0;i<10;i+=2)

x[i]\*=2;

20 16 12 8 4

1. (30 points) Write a loop to find a number in array x that has an even number as the right neighbor. Your code outputs the position of the first one found or “not found”, if it was not found. For full credit, do it efficiently. Assume the size of the array is given by variable size.

#include<stdio.h>

int

main(void)

{

int i;

int size;

size=count(i);

for(i=1;i<size;i++) //\*because i=0 does not have left neighbour\*//

{

if(x[i]%2==0)

{

printf("%d",i-1);

break;

}

}

if(i==size)

printf("not found");

}

In this loop, there are only two outputs: position or the “not found”(after the loop). If it’s inside the loop, it’s going to say “not found” every time it does not have an even neighbor.

1. (30 points) Write a loop to read 100 numbers from the keyboard, place each in array x, and count both the number of multiples of 2 and the number of multiples of 3. Output the counters at the end. Assume the array has 100 positions.

$include<stdio.h>

int

main(void)

{

int counter1;

counter1=0;

int counter2;

counter2=0;

int i;

for(i=0;i<100;i++)

{

int x;

scanf("%d",&x[i]);

if(x[i]%2==0)

{

counter1++;

}

if(x[i]%3==0)

{

counter2++;

}

}

printf("Have %d multiples of 2\n", counter1);

printf("Have $d multiples of 3\n", counter2);

return 0;

}

Can’t use “else”, because some numbers can be multiple of both 2 and 3

