**CS120 Fundamental of Programming**

**Lab No. 6: Repetition Structure**

**Objective:**

The objective of this lab is to practice loops in C.

**Example 1:**

/\* Prints a table of squares using a for statement \*/

#include <stdio.h>

int main(void)

{

int i, n;

printf("This program prints a table of squares.\n");

printf("Enter number of entries in table: ");

scanf("%d", &n);

for (i = 1; i <= n; i++)

printf("%10d%10d\n", i, i \* i);

return 0;

}

**Example 2:**

/\* display all numbers in the range 5-100 which are multiples of 7 \*/

#include<stdio.h>

int main()

{

int i;

for(i = 5; i < 100; i++) {

if(!( i % 7 )) {

printf("%d ", i);

}

}

return 0;

}

**Example 3:**

/\* sum of even integers from 2 to 100 \*/

#include<stdio.h>

int main()

{

int x, sum =0;

for(x=2 ; x<= 100; x=x+2)

sum = sum + x;

printf(" sum of even integers from 2 to 100 is: %d", sum);

return 0;

}

**Exercises**

1. Write a program which takes two numbers x and y as input from the keyboard. The program then computes and displays x to the power y (x^y). You can run a loop y number of times to compute the answer.
2. Write a C program that reads N integers and finds the number of integers that are larger than 50

(for example N=10; 56, 70, 20, 35, 63, 48, 74, 22, 83, 18 has 5 integers larger than 50)