

Sheet #5: Loops

- 1- Write a C++ program that reads a set of integers and then prints the sum of the even numbers.
- 2- Write a C++ program to count and print all numbers from LOW to HIGH by steps of STEP. Test with LOW=0 and HIGH=100 and STEP=5.
- 3- Write a C++ program to find and print the largest of N (N can be any number) numbers. Read numbers one by one. Verify your result by a trace table. (Assume N to be 5 and the following set to be the numbers {1 4 2 6 8 })

- 4- Suppose you want to create the following multiplication table using C++ program:

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
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- 5- Given a set of numbers, calculate their sum and the average value (mean) using C++

$$x = \frac{1}{n} \sum_{i=1}^n x_i$$

Where n is the number of numbers in the set

- 6- Write a C++ program to get the sum of the series

$$\text{Sum} = 1 - \frac{1}{2!} + \frac{1}{3!} - \frac{1}{4!} + \dots + \frac{1}{99!} - \frac{1}{100!}$$