WEEK 2 PRACTICE PROBLEMS

SL 1

Problem statement

Write a program (WAP) that will print following series upto Nth terms.
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, ...
Sample input Sample output

Sample input	*Sample output*
2	1, 2
5	1, 2, 3, 4, 5
11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

SL 2

Problem statement

Write a program (WAP) that will print following series upto Nth terms.
1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 .....

Sample input	*Sample output*
2	1, 3
5	1, 3, 5, 7, 9
11	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21

SL 3

Problem statement

Write a program (WAP) that will print following series upto Nth terms.
1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, ...

Sample input	*Sample output*
1	1
2	1, 0
3	1, 0, 1
4	1, 0, 1, 0
7	1, 0, 1, 0, 1, 0, 1
13	1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1

SL 4

Problem statement

Write a program (WAP) that will take N numbers as inputs and compute their average.
(Restriction: Without using any array)

Sample input	*Sample output*
3 10 20 30.5	AVG of 3 inputs: 20.166667
2 22.4 11.1	AVG of 2 inputs: 16.750000

SL 5

Problem statement

Write a program (WAP) that will take two numbers X and Y as inputs. Then it will print the square of X and increment (if X<Y) or decrement (if X>Y) X by 1, until X reaches Y. If and when X is equal to Y, the program prints "Reached!"

Sample input(X,Y)	*Sample output*
10 5	100, 81, 64, 49, 36, Reached!
5 10	25, 36, 49, 64, 81, Reached!
10 10	Reached!

SL 6

Problem statement

Write a program (WAP) that will run and show keyboard inputs until the user types an 'A' at the keyboard.

Sample input	*Sample output*
X 1 a A	Input 1: X Input 2: 1 Input 3: a

7 **Write a program (WAP) that will reverse the digits of an input integer.**

Sample input	*Sample output*
13579	97531
4321	1234

8 **Write a program (WAP) that will give the sum of first Nth terms for the following series.**
1, -2, 3, -4, 5, -6, 7, -8, 9, -10, 11, -12, 13, -14, ...

Sample input	*Sample output*
2	Result: -1
3	Result: 2
4	Result: -2

9 **Write a program (WAP) that will print Fibonacci series upto Nth terms.**
1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, ...

Sample input	*Sample output*
1	1
2	1, 1
4	1, 1, 2, 3
7	1, 1, 2, 3, 5, 8, 13

10 **Write a program (WAP) that will print the factorial (N!) of a given number N. Please see the sample input output.**

Sample input	Sample output
1	1! = 1 = 1
2	2! = 2 X 1 = 2
3	3! = 3 X 2 X 1 = 6
4	4! = 4 X 3 X 2 X 1 = 24