



Sheet 2

1. Write a Java program to find factorial of a number.
 - a. using for loop
 - b. using while loop
 - c. finding factorial of a number entered by user
2. Write a Java program to find the sum of the series $(1/a + 2/a^2 + 3/a^3 + \dots + n/a^n)$.
3. Write a Java program to compute the cosine of x. The user should supply x and a positive integer n. We compute the cosine of x using the series and the computation should use all terms in the series up through the term involving x^n . $\cos x = 1 - x^2/2! + x^4/4! - x^6/6! \dots$
4. Write a Java program to Compute Sum of Series $1/1! + 1/2! + 1/3! + 1/4! + \dots + 1/n!$
5. Write a Java program to print following:

i) *****

ii) *
**

iii) *
**

iv) *

v) 1
222
33333
4444444
555555555

vi) 1
212
32123
4321234
543212345

6. Write a java program to compute $\sin x$ for given x.

Hint: $\sin x = x - x^3/3! + x^5/5! - x^7/7! + x^9/9! \dots$