1. Write a function exps, say, that takes as its arguments x and n and returns the sum:

$$\sum_{k=0}^{n} \frac{x^k}{k!}$$

   At the exercise session, a solution using a for-loop will be presented. It is your task to write a new function called expw, that calculates the sum using a while-loop. Compare your results to the ones given by the function exp(x). Print to screen the result of your function and that of exp(x). (You get the exp(x) function by addin the line #include <math.h> to the start of your program, and it computes the value of)

2. Write a program that calculates the growth of an amount of money in a bank account. The growth should be calculated in its own function using a for-loop. The user inputs the initial capital, the interest rate and the savings time in years. The capital grows each year according to the formula:

$$end\ of\ year\ capital = beginning\ of\ year\ capital \cdot \frac{100 + interest\ rate}{100}$$

   The function could be of the form calcinterest(double initcapital, double interestrate, int savingstime); The function should return the amount of money on the account at the end of the given time.

3. Write a program that prints the values of the following four expressions to the screen, so that x gets values -1.0, -0.9, ..., 2.9, 3: $\sin x$, $x^{-2.5}$, $\lceil x \rceil$ (ceiling) ja $\log x$.