Practice Examples for Lab: Set 5

- 1

Write a program that reads 3 numbers and prints them in non-decreasing order.

- 2

Write a program which takes as input a number denoting the `year`, and says whether the year is a leap year or not a leap year.

- 3

Write a program that takes as input 3 numbers a, b, c and prints out the roots of the quadratic equation $ax^2 + bx + c = 0$. Make sure that you handle all possible values of a, b, c without running into a division by zero or having to take the square root of a negative number. Even if the roots are complex, you should print them out suitably.

- 4

Write a program that reads in 3 characters. If the three characters consist of two digits with a '.' between them, then your program should print the square of the decimal number represented by the characters. Otherwise your program should print a message saying that the input given is invalid.

Practice Examples for Lab: Set 5

- 5

Write a program which prints all the prime numbers smaller than n, where n is to be read from the keyboard.

- 6
  en.wikipedia.org/wiki/Perfect_number

A number is said to be perfect if it is equal to the sum of all numbers which are its factors (excluding itself). So for example, 6 is perfect, because it is the sum of its factors 1, 2, 3. Write a program which determines if a number is perfect. It should also print its factors.