Exercises 9

1. The following Java method **f** gets an integer array **x** and the length **n** of the array as arguments:

```
public int f(int x[], int n)
   {
   int i, k = 0;
   if (n <= 0) return -1;
   i = 1;
   while (i < n)
      {
      if (x[k] > x[i])
          k = i;
      i = i+1;
      }
   return k;
   }
```

(a) What does the method **f** calculate?

(b) What does it give as result if all fields of the array **x** contain the same number, let us say, 1 ?

2. Write an XL (or Java) program which prints all prime numbers between 1 and 1000 on the screen (and no other numbers).

Remark 1: An integer is a prime number if it is larger than 1 and if it is not divisible without rest by any other positive integer except 1 and itself.

Remark 2: **a % b** = rest of the division of integer **a** by integer **b** ($0 \le$ (**a % b**) $<$ **b**).