**In this lab we will try to learn how to pass one or more arguments to the program, then we will show how we can get this arguments and how to use them inside the program.**

**The variable argc contains the number of parameters passed to the program.**

**The variable argv is a vector that have the parameters passed to the program (So, argc is the length of argv).**

**The command lindex allows us to take the case of the vector pointed by the second parameter.**

**The next example of a tcl program check a given number and show whether this number is bigger than 50 or no. We have to type simply "ns prime.tcl (the value of the number)". The line set h [lindex $argv 0] assigns to the variable h the value of the first parameters passed to the program which has been saved on the variable argv.**

```
#    NUMBER is the number we want to check
if {$argc != 1} {
# Must get a single argument or program fails.
   puts stderr "ERROR! ns called with wrong number
of arguments!($argc) "
   exit 1
} else {
   set h [lindex $argv 0]
}
if {$h > 50} {
```

```
        puts "$h is bigeer than fifty"
} else {
        puts "$h is less than or equal to fifty"
}
```

**In the next example we will try to use the same example presented in the previous lab to, but the difference is the value of a & b which will be passed as arguments to the program:**

```
if {$argc != 2} {
# Must get two arguments only or program fails.
   puts stderr "ERROR! ns called with wrong number
of arguments!($argc) "
   exit 1
} else {
   set a [lindex $argv 0]
   set b [lindex $argv 1]
}
set c [expr $a + $b]
set d [expr [expr $a - $b] * $c]
puts "c = $c d = $d"
for {set k 0} {$k < 10} {incr k} {
    if {$k < 5} {
            puts "k <5, pow = [expr pow($d, $k)] "
    } else {
            puts "k >= 5, mode = [expr $d % $k]"
           }
    }
```

**The next example of a tcl program computes the biggest number between three given numbers:.**

```
# Usage: ns big.tcl THREE NUMBERs
#      NUMBERs are the three input numbers to which we want to do some operations
#
if {$argc != 3} {
# Must get three arguments or program fails.
   puts stderr "ERROR! ns called with wrong number of arguments!($argc) "
   exit 1
} else {
   set a [lindex $argv 0]
   set b [lindex $argv 1]
   set c [lindex $argv 2]
}
   proc big {j k m} {
   # Computes all the biggest number between the three numbers
   if {$j >= $k} {
         set s $j
   } else {
         set s $k
   }
   if {$s >= $m} {
       puts "The biggest number is{\t$s}"
   } else {
       puts " The biggest number is{\t$m\t}"
   }
}
big $a $b $c
```