Exercises
10 – Multi - Tasking

Department of Computer Science
University of Pisa
Largo B. Pontecorvo 3
56127 Pisa
Write a C program that moves into the background right after activation, waits for X seconds (executing the program \texttt{/bin/sleep} with a call to an \texttt{exec *} where X is the program argument and then prints its pid, the pid of the father and then ends.
Write a program fibfork.c that takes the Fibonacci number $n$ as argument. The program should fork two copies of itself to compute $\text{fib}(n - 1)$ and $\text{fib}(n - 2)$. These child processes will return their values to the parent using the exit call, but not print them to the screen, and the parent will retrieve them using the wait call. This means that the number of processes created will be roughly equal to the Fibonacci number being calculated, so $n$ should be small.