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Lab 06 exercise 02

In order to not send unneded data over the pipe, before transmitting the filename its length is sent as integer over the pipe.
This introduces a problem since many children may be waiting to receive the filename's length and could read the starting portion of the filename as an integer.

In order to solve this problem a fouth pipe as been introduced.
This pipe contains a "token" that a child process has to read before reading the filename. After the filename has been correctly received the process releases the token into the pipe with a `write`, unlocking another process that was stuck at the `read` of this pipe, (called `lock`).

This program is not parallelized since only one child at a time is actually sorting a file in the directory `dir`.

The execution could be parallelized by satisfying every request (until no file has to be sorted anymore) on `request_pipe` before elaborating the responses on `answer_pipe`.