Lab 6

- for the `grep` and `copy` subroutines, focus on the right nozzle
  - what are you reading/writing? (bytes or characters)
  - how do you want to read/write? (single byte/character at a time, whole line of text at a time, …)

    → look through the nozzle classes in Monday's slides to find the classes with the right methods for what and how you want to read/write – those will be the parameter types

Lab 6

- in `main`, create the right hose for the particular source/destination and attach the nozzle needed for the subroutine parameters

    → look through the hose classes in Monday's slides to find the right hose

    ```
    // since the file is a text file, we can create a reader hose
    // (FileReader) directly, but still need to wrap it in a BufferedReader
    // for the sum function
    int sum = sum(new BufferedReader(new FileReader(filename)));
    ```

  - sometimes you need an adapter to connect the right nozzle to the hose e.g. a character stream nozzle and a byte stream hose
    - `InputStreamReader`, `OutputStreamWriter` go from bytes to characters

    ```
    // System.in is an input stream (byte stream) and BufferedReader is a
    // nozzle for readers (character stream), so first need to apply a
    // bytes-to-characters nozzle (InputStreamReader)
    int sum = sum(new BufferedReader(new InputStreamReader(System.in)));
    ```