Homework 3 (15 points)

Arrays and pointers (Fibonacci numbers)

1. (4 points) Rework the code you obtained in HW2.3:
   - Define in the main() function a local array of a constant length.
   - Rewrite the fibo(**int** x0, **int** x1, **int** n) function so that it
     1.1 accepts the array as an additional parameter and
     1.2 fills the passed array with the first n Fibonacci numbers starting with x0, x1.
   - Pass the array you defined in the main() function to the fibo() function.
2. (3 points) Rework the code you produced in HW3.1:
   - Add a function printIntArray() so that it
     2.1 accepts an **int** array as a parameter and
     2.2 prints its contents.
   - Remove the printing code from the fibo() function.
   - Modify the main() function to use both fibo() and printIntArray().

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3. (4 points) Rework the code you obtained in HW3.2 to use a dynamically-allocated array of a variable length (entered by the user) instead of a constant size local array.
4. (4 points) Modify the code you obtained in HW3.3 to accept three command line arguments `n`, `x0` and `x1`, instead of asking the user to enter them manually. For example, if the executable file is called `fibo`, the command line

   ```
   fibo 40 0 1 [ENTER]
   ```

   should print the first 40 Fibonacci numbers starting with 0, 1 and exit[1].

E-mail the answer and the source code to `ljank@ippt.pan.pl`.

[1] In Dev C++ you can use the menu 'Execute → Parameters' to specify the arguments instead of running the program from the command line.