Homework Assignment #5:
Programming Exercise #1

Due Time/Date

2:10PM Tuesday, November 3, 2020. Late submission will be penalized by 20% for each working day overdue.

Problem Description

Solve Problem D "Fibonacci Words" of the 2012 ACM International Collegiate Programming Contest World Finals (see `https://icpc.global/xwiki/wiki/public/download/worldfinals/problems/icpc2012.pdf` or the course website).

Notes

This assignment constitutes 4% of your grade. You may discuss the problem with others, but copying code is strictly forbidden. **Some of you may be requested to demonstrate your program.**

Submission Guidelines

- Pack everything, excluding compiler-generated files, in a .zip file, named with the pattern "`b087050xx-alg2020-hw5.zip`".

- Upload the .zip file to the CEIBA course site for Algorithms 2020:

  `https://ceiba.ntu.edu.tw/1091alg2020`.

- If you use a Makefile, make sure that it outputs "`hw5`". Otherwise, make sure that the whole application can be compiled by a single command like "`gcc hw5.c`", "`g++ hw5.cpp`", or "`javac hw5.java`".

Grading

Your work will be graded according to its correctness and presentation. Before submission, you should have tested your program on several input cases. You should organize and document your program in such a way that other programmers, for example your classmates, can understand it. In the documentation of your program, you are encouraged to describe how you have applied the algorithmic techniques, in particular design by induction, learned in class.

Below is a more specific grading policy:

Criteria	Score
incomplete or doesn't compile	≤ 20
complete, compiles, but with major errors	≤ 40
complete, compiles, but with minor errors	≤ 60
correct but with little documentation	≤ 80
correct and with good documentation	≤ 100
explanation of algorithmic techniques applied	$+10$