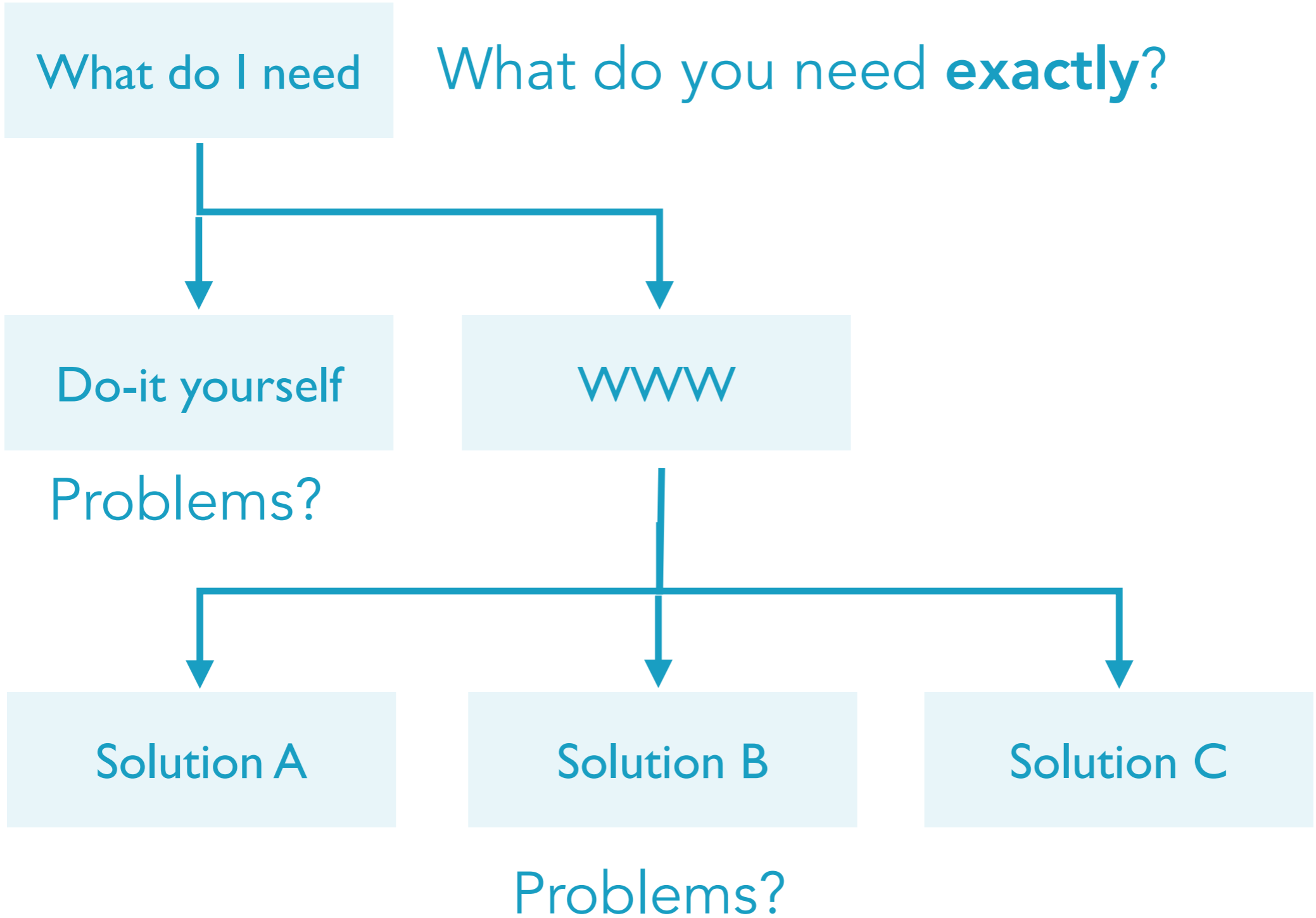


Evolutionary Genetics

LV 25600-01 | Lecture with exercises | 4KP

How to approach new software?





nucleotide sequence length application linux|



[KaKs Calculator - kaks-calculator - A software package for ...](#)

[code.google.com/p/kaks-calculator/wiki/KaKs_Calculator](#)

If you use other **Linux**/Unix OS, you have to compile the **program** in the source codes ... Let us assume that the number of **lengths** between two **DNA sequences** ...

[GenSkew - visualization of nucleotide skew in genome sequences](#)

[genskew.csb.univie.ac.at/](#) - Cached

GenSkew is an **application** for computing and plotting **nucleotide** skew data. ... unlimited **sequence length** are available in the GenSkew Java **Application**. ... Operating Systems: Every OS that runs Java2 (tested on **Linux**, Windows, MacOS X) ...

[Software/list - SEQwiki - SEQanswers](#)

[seqanswers.com/wiki/Software/list](#) - Cached - Similar

21 Nov 2012 ... **Linux**. Alcovna, ALgorithms for COmparing and Visualizing Non Assembled data ... Arf, arf is a genetic analysis **program** for sequencing data. to obtain all sequences that overlaps to construct the a "full **length**" sequence. ... BFCOUNTER, BFCOUNTER is a **program** for counting k-mers in **DNA sequence** data.

[DNA sequence Reverse and Complement Tool Free Bioinformatics ...](#)

[www.cellbiol.com/scripts/.../dna_sequence_reverse_complement.php](#) - Cached

With this tool you can reverse a **DNA sequence**, complement a **DNA sequence** or reverse ... A web **application** written in Python by Andrea Cabibbo ... web **applications**, open source, **linux**, strider, biology news, bioinformatics, biology **software**, ...

Freeware (from "free" and "software") is computer software that is available for use at no cost or for an optional fee (donation).



The **GNU General Public License** (GNU GPL or simply GPL) is the most widely used free software license.

Commercial software, or less commonly, **payware**, is computer software that is produced for sale or that serves commercial purposes.

The term **shareware** (also known as trialware or demoware) refers to proprietary software that is provided to users without payment on a trial basis and is often limited by any combination of functionality, availability or convenience.

Input sequence(s) (or upload file): ?

Upload File

Run Sequence length:

Input sequence(s) (or upload file): ?

```
>Seq1  
ATGGC ATGCG  
>Seq2  
TGACA TTNNN
```

Upload File

Run Sequence length:



- ▶ What should you know **before** you download?
- ▶ What should you do **before** you start analysing your data?
- ▶ Where can you get **help**?
- ▶ What do you need for the **publication / report**?

What should you know **before** you download?

- requirements
- type (e.g. freeware)
- in- and output file format
- last update / update history
- literature search
- what language is used

What should you do **before** you start analysing your data?

- avoid installation errors
- understand installation warnings
- run tests simple tests
- explore limitations
- check in- and output format
- speed

Where can you get **help**?

- manual(s) > RFM
- help options (e.g. help button, -help, --h)
- README file(s)
- log file(s)
- user forum
- author(s)

What do you need for the **publication / report** ?

- literature reference or web link
- version
- parameters (better: command line)

Ten Simple Rules for Getting Help from Online Scientific Communities

Giovanni M. Dall'Olio^{1*}, Jacopo Marino², Michael Schubert³, Kevin L. Keys¹, Melanie I. Stefan⁴, Colin S. Gillespie⁵, Pierre Poulain^{6,7,8}, Khader Shameer^{9,10}, Robert Sugar³, Brandon M. Invergo¹, Lars J. Jensen¹¹, Jaume Bertranpetit¹, Hafid Laayouni¹

Netiquette

Rule 1. Do Not Be Afraid to Ask a Question

Rule 2. State the Question Clearly

Rule 3. New to a Mailing List? Learn the Established Customs before Posting

Rule 4. Do Not Ask What Has Already Been Answered

Rule 5. Always Use a Good Title

Rule 6. Do Your Homework before Posting

Rule 7. Proofread your Post and Write in Correct English

Rule 8. Be Courteous to Other Forum Members

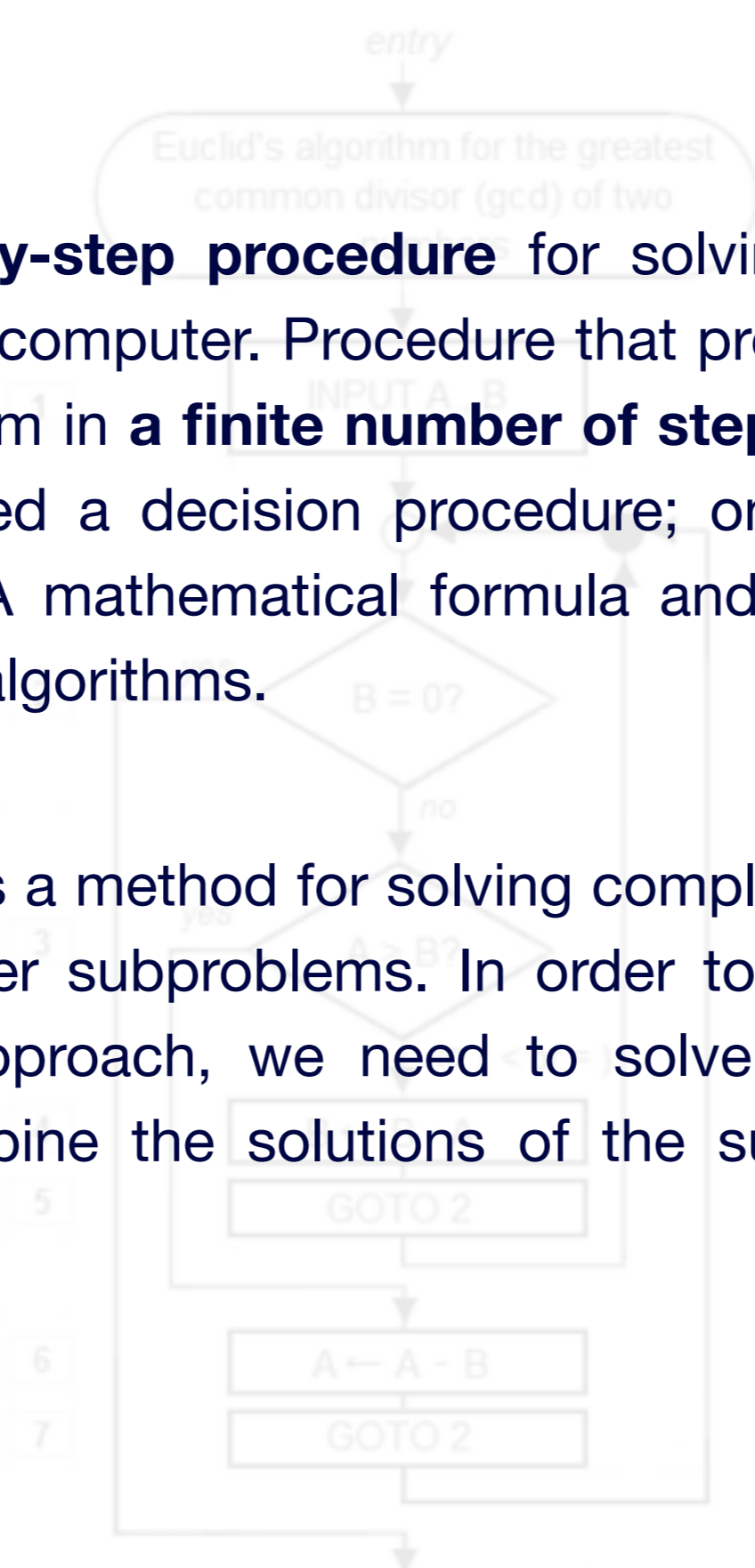
Rule 9. Remember That the Archive of Your Discussion Can Be Useful to Other People

Rule 10. Give Back to the Community



An algorithm is a **step-by-step procedure** for solving a problem or accomplishing some end especially by a computer. Procedure that produces the answer to a question or the solution to a problem in **a finite number of steps**. An algorithm that produces a yes or no answer is called a decision procedure; one that leads to a solution is a computation procedure. A mathematical formula and the instructions in a computer program are examples of algorithms.

Dynamic Programming is a method for solving complex problems by breaking it down into a collection of simpler subproblems. In order to solve a given problem using a dynamic programming approach, we need to solve different parts of the problem (subproblems), then combine the solutions of the subproblems to reach an overall solution.





Pseudocode is an informal high-level description of the operating principle of a computer program or other algorithm. It uses the structural conventions of a programming language, but is **intended for human reading** rather than machine reading.



```
1.. If student's grade is greater than or equal to 20
    Print "passed"
else
    Print "failed"
```

```
void function fizzbuzz
for (i = 1; i<=100; i++) {
    set print_number to true;
    if i is divisible by 3
        print "Fizz";
        set print_number to false;
    if i is divisible by 5
        print "Buzz";
        set print_number to false;
    if print_number, print i;
    print a newline;
}
```