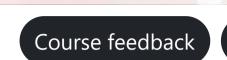# CS-C2160 - Theory of Computation, Lecture, 11.1.2022-11.4.2022

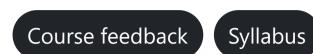This course space end date is set to 16.12.2022   **Search Courses: CS-C2160**

?   Astra exercises   Forums   Resources

Course feedback   Syllabus

5. Compulsory problem set: Context-free grammars

« 5.4 Grammar for a language   Course overview   5.6 Showing that a grammar is ambiguous »

Exercise description   My submissions **3 / 50** ⌄

Grammar for a language

Consider the language $L = \{w \in \{a, b\}^* \mid w$ is of the form $a^n x b^{n+2}$, where x is any string of length 3 in $\{a, b\}^*\}$.

Give a context-free grammar that generates the language.

Enter the grammar in the space below, one production on each line. Use this syntax:

- production: variable -> string1 | string2 ... | stringn
- variables: capital letters A,B,...,Z
- terminals: lower case letters a,b,...,z and numbers 0,1,...,9
- empty string: _ (the underscore symbol)
- start symbol: the first variable in the grammar

For instance, the grammar

```
A -> aAa | B
B -> bB | _
```

generates the language $\{a^n b^k a^n \mid n \geq 0$ and $k \geq 0\}$.

Your solution:

Submit!

« 5.4 Grammar for a language   Course overview   5.6 Showing that a grammar is ambiguous »

Earned points

1 / 1

Exercise info

Exercise category
Compulsory exercises

Your submissions
3 / 50

Points required to pass
1

Deadline
Sat, 31 Dec 2022 23:59:00 +0200

Total number of submitters
154

Previous activity
◄ 4. Compulsory problem set: Regular expressions

Next activity
6. Voluntary problem set: Some small brain teasers ►

Tuki / Support

Opiskelijoille / Students
- MyCourses instructions for students
- email: mycourses(at)aalto.fi

Opettajille / Teachers
- MyCourses help
- MyTeaching Support form

Palvelusta
- MyCourses rekisteriseloste
- Tietosuojailmoitus
- Palvelukuvaus
- Saavutettavuusseloste

About service
- MyCourses protection of privacy
- Privacy notice
- Service description
- Accessibility summary

Service
- MyCourses registerbeskrivining
- Dataskyddsmeddelande
- Beskrivining av tjänsten
- Sammanfattning av tillgängligheten

Aalto-yliopisto
Aalto-universitetet
Aalto University

Nguyen Binh (Log out)