



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](#)

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Course feedback

Syllabus

6. Voluntary problem set: Some small brain teasers

These problems are completely **voluntary** (no bonus points given, either) that may require more time to solve. Try with your own responsibility.

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Exercise description

My submissions **9 / 50** ▼

Grammar for a language

Consider the language $L = \{xcy \in \{a,b,c\}^* \mid x,y \in \{a,b\}^* \text{ and } x \neq y\}$.

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 $\{a^n b^k a^n \mid n \geq 0 \text{ and } k \geq 0\}$.

Your solution:

Submit!

Earned points

0 / 1

Exercise info

Exercise category
Voluntary exercises

Your submissions
9 / 50

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

Total number of submitters
17

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Previous activity

◀ 5. Compulsory problem set: Context-free grammars

Next activity

7. Voluntary problem set: Finite automata ▶



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