Slide 15

- give a regular expression for the language accepted by this NFA using the construction from class
- apply the NFA-to-DFA conversion algorithm to construct a DFA that accepts the same language

- draw an NFA that accepts $L((a|b)^*cc^*(a|b)^*)$
  - using the construction from Theorem 3.3
  - using any method you want

Slide 16

- give a context-free grammar for the language $L = \{\, a^n b^m c b^m a^n \mid n, m \in \mathbb{N} \,\}$ and briefly explain how your grammar works

- give a context-free grammar for the language $L = \{\, a^n b^m \mid n > 2m \in \mathbb{N} \,\}$ and briefly explain how your grammar works

Slide 17

- write a BNF grammar for the following
  - nesting of elements shown can go arbitrarily deep

```
<html>
<head><title>the title</title></head>
<body>
  <p>paragraph text</p>
  <ul>
    <li> list item
    <li> <p>another list item</p>
    <li> <p>list item</p>
         <p>second paragraph</p>
      <ul>
        <li> nested item
      </ul>
  </ul>
</body>
</html>
```