Homework 11
Com S 331, Spring 2017
Due date: **Friday, April 28, 2017**
Please submit the homework via BlackBoard **before the class that day**.

Note: All submissions should be **typed** and in .pdf or .doc(x) format. However,
state diagrams can be drawn with hand and presented in the final manuscript as
images. We recommend to use Latex for typing homeworks. You **do not** need
to formally prove the correctness of your constructions unless a question specif-
ically asks to do so. However, in most cases you need to present a reasonable
justification of correctness.

Total points available: 100 (130 with extra credit)

0. Please read chapter 5 from the class-book (Sipser, **3$^{\text{rd}}$** edition).

1. **(20 points)** Solve Problem 5.2 from the class-book.

2. **(25 points)** Solve Problem 5.9 from the class-book.

3. **(25 points)** Solve Problem 5.13 from the class-book.

4. **(30 points)** Solve Problem 5.16 from the class-book.

5. **(Extra credit : 30 points)** Solve Problem 5.23 from the class-book.