**Problem Sets After Test 2**

*Only turn in problems that are **not** bracketed.* Bracketed problems are additional problems you can look at. Round brackets indicate problems that may help you with problems that are assigned; square brackets are additional problems on material that you should know, but you are not required to write up solutions; curly brackets are truly optional and may contain extra nuggets that you will not be required to know but may be interested in.

Additional assignments will be filled in over time.

| notation | meaning |
|---|---|
| unbracketed | assigned problem – turn these in for grading |
| () | helper/warm-up problem |
| [] | additional problems (you are responsible for content, but don't turn them in) |
| {} | covers optional material |

| Due | Task | Source | Problems |
|---|---|---|---|
| Fri 4/12 | PS 9 | Rosen 13.1 | **1ad** sentences [2]  (3)  **4**  [5]  **6a 9**  (13)  **14bd**  [15] |
| | | Rosen 13.3 | (11) testing strings **12** testing strings **16−17** what langauge? **25−26** create DFA |
| Mon 4/15 | PS 10 | Rosen 13.3 | **19−20** what langauge?  **32** create DFA **34** create DFA **45−46** what langauge? **52−54** NFA to DFA |
| Wed 4/24 | PS 11 | Rosen 13.4 | [1]  **2  6** regex [7] regex **12−13** Kleene's Thm **20** lonely start state |
| Mon 4/29 | PS 12 | Rosen 13.4 | **14** grammar → NFA **15−16** NFA → grammar **22, 24, 25** pumping lemma |
| Wed 4/31 | PS 13 | | Prepare for Test 3. Here are some problems you might look at. |
| | | Rosen 13.RQ | [1–2]  [4]  [5a]  [6a]  [7–12]  [15] |
| | | Rosen 13.SE | [3]  [7]  [8]  [9]  [19–21]  [23–25]  [26–27] |
| ** | PS 14 | Rosen 13.5 | [1–5] trace TM [6–12] design TM |