

Assignment 10: Turing Machines

Due: 1:15pm, Tuesday, November 16

- Emails about this assignment should be directed to `cs81help@cs.hmc.edu`.
 - Grutor office hours in Platt are Sundays **7–10pm** and Mondays 9–11pm; Prof. Stone's office hours in Olin 1251 are MW 4–5pm and TR 3–4pm and by appointment.
 - The usual collaboration rules apply. You may *discuss* an exercise with any other student(s) currently taking CS 81 as long as:
 - You contribute equally;
 - You come away from this discussion only with *understanding in your head* — no written materials or computer notes may be retained;
 - Your submission is authored solely by you, on a separate occasion.
 - You should refer only to materials from this semester of CS 81 (lecture notes, handouts, textbooks, grutors, profs, etc.).
 - Bring a writeup/printout to class on the due date. Illegible answers will get no credit.
 - Make sure your submission includes your name!
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1. Read pages 137–159 of Sipser. Come up with (at least) two questions about the reading where you're not sure of the answer. These may relate to points where the book is confusing, or simply to some related question or conjecture that occurs to you while doing the reading.
2. Do Problem 3.15(b–e) on page 161 of Sipser. You don't need to do 3.15(a) because its answer is on page 163.
3. Problem 3.16(b–d) on page 161 of Sipser. You don't need to do 3.16(a) because its answer is on page 163.
4. Do Problem 3.11 (page 161) in Sipser. Your answer should have the same style as the solution to 3.10 on page 163.
5. Do Problem 3.13 (page 161) in Sipser.
6. Do Problem 3.18 (page 162) in Sipser.