

## Problem Set 10

**MIT students:** This problem set is optional and need not be turned in. Solutions will be available one week later.

**SMA students:** This problem set is optional and need not be turned in. Solutions will be available one week later.

*Reading:* Chapters 26

You will often be called upon to “give an algorithm” to solve a certain problem. Your write-up should take the form of a short essay. A topic paragraph should summarize the problem you are solving and what your results are. The body of your essay should provide the following:

1. A description of the algorithm in English and, if helpful, pseudocode.
2. At least one worked example or diagram to show more precisely how your algorithm works.
3. A proof (or indication) of the correctness of the algorithm.
4. An analysis of the running time of the algorithm.

Remember, your goal is to communicate. Graders will be instructed to take off points for convoluted and obtuse descriptions.

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**Exercise 10-1.** Do exercise 26.1-5 on page 650 of CLRS.

**Exercise 10-2.** Do exercise 26.1-9 on page 650 of CLRS.

**Exercise 10-3.** Do exercise 26.2-3 on page 663 of CLRS.

**Exercise 10-4.** Do exercise 26.2-5 on page 663 of CLRS.

**Exercise 10-5.** Do exercise 26.2-8 on page 664 of CLRS.