

**Homework assignment 4, due Thurs Nov. 15 before class (for
FEEDS students: due Tues Nov. 20)**

- Look up course webpage under “Homeworks,” specifically for late submission policy which you must follow strictly – otherwise you could lose all points;
- Cheating policy and bonus policy under “about homeworks.”
- Please make sure to include your code when you submit your homework, or risk losing points.

Most answers should contain at least the following 4 parts. (Certain problems may require more, and a very few, less).

- The idea of the algorithm – you could choose to illustrate this with an example. Mention familiar design techniques used, if any.
- A pseudocode of the algorithm. Any segment of code that takes constant time may be abbreviated by one instruction. Any algorithm done in class or in the assigned readings can be quoted. All else must be explained.
- A proof of correctness: argue why the desired output is produced when the algorithm halts, and that it does halt.
- An analysis of the worst case time complexity, in terms of the relevant input size parameters.

1. 32.2-2, 32.2-3
2. 33.2-6, 33.2-7
3. 33.3-4, 33.4-4 (corrected error in initial posting)
4. 34-1(a-c), 34-2.
5. (bonus) 33-3