Today Time complexity basics and the class P. §§ 7.1–2.
Next class HW05 due. The class NP, and NP-completeness. §§7.3–4.

1. List the members of your group below. Underline your name.

2. Elaborate on the textbook's Example 7.3 by proving that the values $c = 6$ and $n_0 = 10$ have the properties claimed there.

3. Prove or disprove: $4^{O(\lg n)} = O(n^k)$ for some k.

4. Outline, in as much detail as you can, a Python program that operates as the Turing machine M_1 (p. 279) does, being as faithful to its low-level operations as possible. Repeat for machines M_2 and M_3.