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Today Time complexity basics and the class P. §§ 7.1–2. **Next class** 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 .