5. The statement of a theorem should usually be self-contained, not depending on the assumptions in the preceding text. (See the restatement of the theorem in point 4.)

6. The word “we” is often useful to avoid passive voice; the “good” first sentence of example 4 is much better than “The following result can now be proved.” But this use of “we” should be used in contexts where it means “you and me together”, not a formal equivalent of “I”. Think of a dialog between author and reader.

In most technical writing, “I” should be avoided, unless the author’s persona is relevant.

7. There is a definite rhythm in sentences. Read what you have written, and change the wording if it does not flow smoothly. For example, in the text Sorting and Searching it was sometimes better to say “merge patterns” and sometimes better to say “merging patterns”. There are many ways to say “therefore”, but often only one has the correct rhythm.

8. Don’t omit “that” when it helps the reader to parse the sentence.

   Bad: Assume A is a group.

   Good: Assume that A is a group.

The words “assume” and “suppose” should usually be followed by “that” unless another “that” appears nearby. But never say “We have that \( x = y \),” say “We have \( x = y \).” And avoid unnecessary padding “because of the fact that” unless you feel that the reader needs a moment to recuperate from a concentrated sequence of ideas.

9. Vary the sentence structure and the choice of words, to avoid monotony. But use parallelism when parallel concepts are being discussed. For example (Strunk and White #15), don’t say this:

   Formerly, science was taught by the textbook method, while now the laboratory method is employed.

   Rather:

   Formerly, science was taught by the textbook method; now it is taught by the laboratory method.

Avoid words like “this” or “also” in consecutive sentences; such words, as well as unusual or polysyllabic utterances, tend to stick in a reader’s mind longer than other words, and good style will keep “sticky” words spaced well apart. (For example, I’d better not say “utterances” any more in the rest of these notes.)

10. Don’t use the style of homework papers, in which a sequence of formulas is merely listed. Tie the concepts together with a running commentary.

11. Try to state things twice, in complementary ways, especially when giving a definition. This reinforces the reader’s understanding. (Examples, see §2 below: \( N^n \) is defined twice, \( A_n \) is described as “nonincreasing”, \( L(C, P) \) is characterized as the smallest subset of a certain type.) All variables must be defined, at least informally, when they are first introduced.