

1. *Assignment*
 - a. Have we neglected anything for the in-class outline?
 - b. Are there further questions about the social organization of mathematics?
 - c. Continue reading Gillman 1987 and prepare to discuss it.
 - d. *Example proofs.* I'd hoped to find a neat proof that any two bases of a vector space are equinumerous, which used Zorn's lemma directly, without treating the finite case separately. But my attempt failed. Instead I crafted a combination of proofs for the finite and infinite cases that are the neatest I found. The proof sketches are posted on the website under "Readings". Posted also are the original versions. Please familiarize yourself with them. We'll use them as an exercise for writing a literate proof later.
2. *Gillman 1987, chapter 3, continued.*
 - a. We celebrated the emphasis Gillman places on reader-friendliness.
 - b. *First person plural*
 - i. Gillman favors use of first person plural: "Next *we* show . . ." There is controversy about this.
 - ii. I prefer to say *I* when I don't mean *you and I*. But many readers and writers seem embarrassed by such personal references.
 - iii. Gillman probably regards his *we* as portraying his leading the reader. OK, that's not bad.
 - iv. But in many cases, the writer obviously is traveling solo: *we* means *me, myself, and I*.
 - v. I believe Churchill once quipped that the only writers really entitled to use *we* that way were Queen Victoria, the Pope, and writers with tapeworms.
 - c. *Second person*
 - i. Gillman uses second person: "Keep the reader informed of what *you* are doing." I like that and have used it in my books about programming. But many of my colleagues and certainly my academic publisher would object to *any* use of second person, probably as being too direct. They might write in third person, "The writer should keep the reader informed of what he is doing." But that causes lots of problems.
 - d. *Third person.*
 - i. That gender-specific wording could be eliminated by pluralizing: "Writers should keep the reader informed of what they are doing."
 - ii. *Almost all unnecessarily gender-specific references can be avoided by pluralization or use of second person.*
 - iii. But this is not necessarily good. It sounds like a bunch of writers are ganging up on one reader. How about unisex singulars: "One should keep readers informed of what one is doing." Yucch! Milquetoast! How about "Writers should keep readers informed of what they are doing"?

That sounds ok until you begin wondering how writers are supposed to know what *readers* are doing. Pay attention to what you write!

- iv. Students wondered whether Q.E.D. is passé. Probably, but in any case it's too language-specific. Would you understand the German W.Z.B.W. in place of the Latin? Clearly, Gillman prefers the diamond ♦ to call attention to the crystal clarity of your proof, or the tombstone □ to say *Amen!*