

Here are some suggestions on better writing math texts
(incl. those of Halmos, Arnold, etc)

1. A must: read the paper “How to write mathematics” by P.R. Halmos, *Enseignement Math.* (2) 16 (1970), 123–152.

Also published in “How to Write Mathematics” by N. E. Steenrod, P. R. Halmos, M. M. Schiffer, and J. E. Dieudonne - AMS, 1973, 64 pp.

2. Titles and subtitles have to be meaningful to the extent that the table of contents becomes a “mini-paper” on its own. The same holds for figures: the captions have to carry messages without relying on the main text.

3. Try to formulate the main result in the paper and in each section as early as possible. If it requires too many notions, formulate it first “approximately” and then make it precise, once the notions are introduced. Prove it only after that.

“A good result can be formulated in 3min. If it is a bit worse, then in 5min, etc.”
(A.A. Kirillov)

4. Always name the notion next to its notation: point P , variety B (to recall your notation to the reader)

5. Keep examples handy and keep reminding of them in the text. The reader will keep understanding only as long as he has at least one example to test the theory, and he will not be able to move beyond the point in the paper where his last example disappears, due to some new assumptions.

6. Try to say simple formulas in words (in addition to, or even instead of, the formulas themselves).

B. Khesin