More comments on mathematical writing

1. Distinguishing among *variable*, *parameter*, and *constant* can be useful.

2. Give the meaning for each of the variables/parameters/constants you introduce so your report is self-contained.

3. Try to introduce the meaning of each symbol *before* you use it in a mathematical expression rather than immediately after the expression.

4. Include any main mathematical result in the body of the report rather than in an appendix or separate sheet of calculations. For example, if you compute the partial derivative of T with respect to p, give this result in the body of the report.

5. Write so each mathematical expression is part of a complete sentence (either in-line or on a display line).

No: We now solve for p.

$$p = \frac{nRT}{V - nb} - \frac{n^2a}{V^2}$$

Yes: We now solve for p to get

$$p = \frac{nRT}{V - nb} - \frac{n^2a}{V^2}.$$

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6. Choose wording so that a colon is not needed to lead into a display line.

7. Figures and tables should not be included as parts of sentences. Instead, each plot and table should be labeled (Figure 1, Table 1, etc) and then referred to in the text.

No: The plot looks like this:

[figure placed here]

Yes: We get the plot shown in Figure 1.

[figure placed somewhere after the first reference in the text]

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8. Use "horizontal axis" and "vertical axis" rather than "x-axis" and "y-axis".