

Chapter 12 Quantitative and Technical Material

1. Copyedit the sentences below to show the correct use of numbers, symbols, and abbreviations. You may need to refer to the discussion of abbreviations in Chapter 7 and to a list of abbreviations and a style guide. Prepare a style sheet if there are options.*

- a. When the electrode is fully in the spinal cord tissue, the resistance shoots up to 1000-ohms or more.
- b. There are two methods of applying a coagulating current. One uses a fixed time, eg. 30 sec, and varies the power applied, eg, 5-mA, then 10mA, 15mA, etc, up to a limit given by the manufacturer. The other method fixes the power, eg at 30 mA, and varies the time, eg 5 sec, then 10 seconds, 15 sec, etc.
- c. The spinal cord at the C1-C2 level is about 15-MM across and 10- to 12-mm from front to back, so the maximum lesion needed is 6 mm x 4 mm. Furthermore, a cylindrical electrode with a 2-mm uninsulated tip will provide a lesion somewhat barrel shaped; an exposed tip of 3-mm. is also used and will provide a lesion of about 4.5 x 3.0 mm.

2. Copyedit the following sentences and equations to clarify punctuation, spacing, italicization of letters that represent unknowns, and grammar.

- a. Consequently an integer p is even if p^2 is even and is odd if p^2 is odd.

- b. Then, squaring we have:

$$p^2 = 2q^2$$

- c. Hence: since 2 is rational, both p and q are even integers.

- d. Thus,

$$|4| = 4, \quad |-4| = -(-4) = 4 \quad |0| = 0.$$

- e. Using the *less than*, *equal to*, *greater than* symbols, these three possibilities are written:

$$a < b \quad a = b \quad a > b$$

3. Convert these stacked fractions for inline presentation.

a. $\frac{1}{16}$

b. $\frac{3}{a+b}$

c. $\frac{x+2}{2y}$

4. Mark this equation to show an appropriate line break.

$$H(-x) = -(-x)^4 + 3(-x)^2 + 4 = -x^4 + 3x^2 + 4 = H(x).$$

5. Mark these equations to align them on the equal sign. Clarify other spacing and italicization as necessary.

$$(2x^2 - 2)(x^2 - x - 12) = 0$$

$$2(x - 1)(x + 1)(x - 4)(x + 3) = 0$$

$$x = -1, 1, 4, -3$$

6. Mark these sentences from a statistical analysis to show italics, spacing, and capitalization.

a. The analysis revealed a significant effect of method in both experiments. In experiment I,

$F = 8.09$ and $p = .001$. In experiment II, $F = 8.58$ and $p = .0007$.

b. Results of a two-tailed t test ($t = .728$, $p < .20$) indicate that the performance difference

between the two groups is not significant.

* Sentences in 1a, b, and c are adapted from "Neurolytic Blocks Around the Head" (first draft), by Samson Lipton, M.D. Used with permission of the author.