

How do you write the following in technical writing?

1. Three-tenths of a millimeter 1.
2. Ten percent 2.
3. Fourteen degrees Centigrade Celsius 3.
4. Ten square feet 4.
5. Ten to the power minus four meters 5.
6. One million watts 6.
7. Ten to the power six volts 7.
8. Ten volts, alternating current 8.
9. Ten megawatts 9.
10. Ten milliwatts 10.
11. Fifty thousand watts 11.
12. One hundred joules per square meter per day 12.

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| 13. One British thermal unit per square foot per second | 13. |
| 14. Seven British thermal units per degree Fahrenheit per square foot per inch of thickness | 14. |
| 15. Ten meters by twelve meters | 15. |
| 16. Four feet by eight feet by one inch thick | 16. |
| 17. One hundred thousand dollars | 17. |
| 18. A few kilowatts | 18. |
| 19. Several tens of square meters | 19. |
| 20. A factor of three | 20. |
| 21. One hour, 30 minutes | 21. |
| 22. 30 arcminutes | 22. |

How do you write the following in technical writing?

1. Three-tenths of a millimeter

1. 0.3 mm

2. Ten percent

2. 10 %

3. Fourteen degrees ~~Centigrade~~
Celsius

3. 14 °C

4. Ten square feet

4. 10 ft²

5. Ten to the power minus four
meters

5. 0.1 mm OR
100 μm; NOT
10⁻⁴ m

6. One million watts

6. 1 MW

7. Ten to the power six volts

7. 1 MV

8. Ten volts, alternating current

8. 10 V AC NOT
10 VAC

9. Five liters

9. 5 L

10. One-tenth of one milliwatt

10. 0.1 mW

11. Fifty thousand watts

11. 50 kW OR
50 000 W, NOT
50 KW

12. One hundred joules per
square meter per day

12. 100 J/(m²·d)
NOT 100 J/m²/d)

Note space

Note zero

In the U. S.

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| 13. One British thermal unit per square foot per second | 13. 1 Btu/(ft ² •s) OR
1 Btu•ft ⁻² •s ⁻¹ |
| 14. Seven British thermal units per degree Fahrenheit per square foot per inch of thickness | 14. 7 Btu•in/(ft²•°F)
(Never mind!) |
| 15. Ten meters by twelve meters | 15. 10 m x 12 m OR
10 x 12 m |
| 16. Four feet by eight feet by one inch thick | 16. 4 ft x 8 ft x 1 in
OR 4 x 8 ft x 1 in |
| 17. One hundred thousand dollars | 17. \$100K
(irregular!) |
| 18. A few kilowatts | 18. A few kilowatts
(NOT a few kW) |
| 19. Several tens of square meters | 19. Several tens of square meters
(NOT several 10's of m ²) |
| 20. A factor of three | 20. A factor of 3 |
| 21. One hour, thirty minutes | 21. 1 h 30 min |
| 22. Twenty-two degrees, thirty minutes | 22. 22°30' |

↖ Note no spaces

Guide to presenting numerical data

1. **Numbers.** (a) Use the correct number of significant digits.
 - (b) Insert a space between digits and unit symbols: 5 nm, *not* 5nm; 5 in, *not* 5in.
 - (i) Exception: 45° *not* 45 °, *but* 20 °C, *not* 20°C *nor* 20° C.
 - (c) Avoid naked decimal points: 0.495, *not* .495.
 - (d) Do not write the words zero and unity: equal to 0, *not* equal to zero.
 - (i) Exceptions: use zero intensity, *not* 0 intensity; unit gain, *not* unity gain.
 - (e) Use delimiters on both sides of the decimal point. SI uses spaces not commas: 2.997 924 58, 6 022 137 *but* 5280, *not* 5 280. (Not all editors will accept spaces as delimiters.)

2. **Symbols.** (a) Use SI (International System) units wherever practical – put SI units first and non-SI in parentheses or omit them entirely: 5.08 cm (2 in).
 - (b) Use symbols only, not complete spellings: 100 W, *not* 100 watts.
 - (i) Exception: a few watts, *not* a few W; a few watts per square centimeter, *not* a few watts/cm² *nor* a few watts/square centimeter; specifically, don't mix words and symbols (/ is a symbol).
 - (c) Always write the name of a unit in lowercase; capitalize the first letter only when the unit is a name (proper noun): Hz, *but* hertz; Btu, *not* BTU *nor* btu.
 - (d) Never pluralize a unit symbol or follow it with a period: 3 cm, *not* 3 cm. *nor* 3 cms.
 - (e) Insert a centered dot between unit symbols: 10 J•s, *not* 10 Js, *nor* 10 J s.
 - (f) Don't use repeated slashes: J/(m²•s) *or* J•m⁻²•s⁻¹, *not* J/m²/s *nor* J/m²•s.
 - (g) Use in and ft for inch and foot, *not* " and ' (which mean arcsecond and arcminute)
 - (h) Use m² *not* sq. m., m³ *not* cu. m.

3. **Graphs and figures.** (a) Locate the axes of the graph along the bottom and left edges, irrespective of the values of the ordinates at the lower left corner.
 - (b) Label both axes and state both the physical quantity and its units: Distance, cm *or* Distance (cm), *not just* Centimeters.
 - (i) Avoid trailing zeros: 1, 2, 3, ..., *not* 1.00, 2.00, 3.00.
 - (c) Make sure that the letters are big enough to be legible.
 - (d) Use the same font throughout your paper.
 - (e) Don't put a box (frame) around a graph or a figure.
 - (f) Locate the caption for a figure below the figure.
 - (g) Don't superimpose a grid over the graph.
 - (h) Don't be a slave to Microsoft's defaults. Or anyone else's.

4. **Tables.** (a) Format a table with as few rules as possible (usually 3 horizontal rules and *no* vertical).
 - (b) Locate the title above the table.
 - (c) Align decimal points vertically (if practical).
 - (d) When possible, present only numbers; locate the units in the headers.

Table 1. Sample table.

Magnifying power ^a	Numerical aperture	Focal length, mm
5	0.05	32
50	0.5	3.2

^a Letter footnotes and locate them below the last rule.