

1. Quotation marks in  $\text{\TeX}$  are begun with two grave accents `` (left of the 1 key) and ended with two small quotes '' . Done incorrectly: "quote"  
Done correctly: "quote"
2. Use inline math mode to denote variables. Let  $n$  be an integer, not n.
3. Use the symbol  $\ell$  ( $\text{\ell}$ ) instead of  $l$  in equations.
4. Use the commands for special functions while in math mode. It should be  $\log(x) \cos(y)$  not  $\log(x)\cos(y)$
5. There are some special places where extra spacing in an equation is appropriate, for example:

$$\int_0^1 x^2 dx$$

should have a space between the equation and differential like so

$$\int_0^1 x^2 dx$$

this is done by inserting a  $\backslash$ , between the equation and the  $dx$  which tells  $\text{\TeX}$  to add more space.

6. Remember to enclose any subscript or superscript in  $\{ \}$  so that you get something like

$$\sum_{n=1}^{\infty} \frac{1}{n^2}$$

rather than

$$\sum_n = 1^{\infty} \frac{1}{n^2}$$

7. Similar to number 4, use  $\text{\textit{}}$  or end inline math mode when using words inside equations. For example:  
let  $\mathcal{S} = \{x \in \mathbb{R} \mid f(x) < c \text{ and } f(x) \in \mathbb{Q}\}$  rather than  
let  $\mathcal{S} = \{x \in \mathbb{R} \mid f(x) < c \text{ and } f(x) \in \mathbb{Q}\}$
8. Periods and ellipses:  
Written plainly... is not the correct form, use  $\text{\ldots}$  ...  
Also, be careful when trying to write a period after a lower case letter (e.g. like this) the spacing is incorrect without using  $\text{\.}$  (e.g. like this)

When writing a period after an uppercase letter, T<sub>E</sub>X assumes you are abbreviating and not ending a sentence.

9. A minus sign with a number must be in math mode,  $-5$  not  $-5$ .
10. Bear in mind all special symbols that are used in L<sup>A</sup>T<sub>E</sub>X: # \$ % & ~ \_ ^  
{ } > < \
11. Remember, every beginning must have an end. Match delimiters and close out every environment you use.