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CS435-101
Fall 2018   May 19, 2018
Writing Math: **Latex-Style**
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1   Writing math: Symbols, Superscripts and Subscripts

Sometimes when we write symbolic math on screen or a .txt document we don't know how to use special symbols (such as theta) or generate superscript or subscripts. Or if we write mathematical text by hand it might be difficult to differentiate between a small (aka little) oh from a big Oh! Follow the conventions below to describe a math expression in such a setting. Feel free to use parentheses and space in between them!

1. Math operators. In order to write standard arithmetic operations use the $+, -, *, /$ symbols of the keyboard.

2. Exponentiation. For exponentiation use $**$ as in $2**3$ instead of $2\hat{\ }3$. The latter one is ok but sometimes it might be difficult to see. Both of these expressions evaluate to 8, BTW.

3. Subscripts. a_2 can be written as a_2 i.e. a, the underscore symbol, and then the 2. To avoid confusion surround 2 with braces i.e. $a\_\{2\}$. For more complex expressions i.e. to write a_{2+3} use the braces absolutely and write $a\_\{2+3\}$.

4. Superscript. a^2 can be written as $a\hat{\ }2$ i.e. a, the hat (caret) symbol, and then the 2 or $a\hat{\ }\{2\}$ with the braces. For more complex expressions i.e. to write a^{2+3} write with braces only as in $a\hat{\ }\{2+3\}$.

5. More complex subscripts and superscripts. Won't be needed but $a\_\{2\}\hat{\ }\{2+3\}$ means a_2^{2+3}.

6. Fractions. To write x/y or $\frac{x}{y}$ write instead \frac{x}{y}, i.e. use the word frac (for fraction) preceded if you like with a backslash and then the numerator followed by the denominator in braces. Or just write frac{x}{y}.

2   Writing math: Asymptotic notation symbols

To write Θ type \Theta. For example $\Theta(n^2)$ can be written \Theta (n^2).

To write θ type \theta. For example $\theta(n^2)$ can be written \theta (n^2).

To write Ω type \Omega. For example $\Omega(n^2)$ can be written \Omega (n^2). If your O is ambiguous use bigOmega instead, and write \bigOmega (n^2).

To write ω type \omega. For example $\omega(n^2)$ can be written \omega (n^2). If your o is ambiguous use littleOmega instead. (I know it's too long, so practice with your little symbols then.)

To write O type \bigOh or just O. For example $O(n^2)$ can be written O(n^2) or \bigOh (n^2).

To write o type \littleOh or just o. For example $o(n^2)$ can be written o(n^2) or \littleOh (n^2).