Spoken Tutorial, IIT Bombay <u>https://spoken-tutorial.org</u> LaTeX Mathematical Typesetting - Assignments

- 1. Assignment on Spaces
 - > We left a space between α and a in the tutorial. Now leave different lengths of space using:
 - $1.1 \enskip$
 - 1.2 \quad
 - $1.3 \quad$

How do these spaces compare with one we created in the tutorial?

- > Between α and a, now leave a smaller space with the command \,(i.e., slash comma)
- 2. Assignment on Fractions using braces
 - > We want you to create $\frac{ab}{cd}$. What happens if you give this command \frac ab cd without braces? Explain.
 - What does the following command result in: \frac{ab+1}{cd-1}
 - > Create this fraction: $\frac{a}{b+\frac{1}{c}}$
 - If you use \dfrac in the place of \frac, what happens? For \dfrac to work, you need to use the package amsmath
- 3. Assignment on Subscripts and Superscripts
 - We want you to create x_{ab}. Will the following command work? x_ab. Explain.
 - Reproduce this command: $int_{-infty}^{y/2}xdx$
 - 1. What do the commands \int and \pi do?
 - 2. Does it make sense to use \frac in the above?
- 4. Assignment on Matrices
 - > We have used the following commands to build matrices: \matrix, \bmatrix
 - > Try instead the following matrix commands: \pmatrix, \vmatrix, \Vmatrix
 - Remember to use the package amsmath
- 5. Assignment on Various symbols
 - Try the symbols on page 12 and 13 of the file chap11-prn.pdf that has been given in the Code files.
- 6. Assignment on Package amssymb
 - Use the package amssymb
 - Try the commands on pages 14 to 16 of the file chap11-prn.pdf that has been given in the Code files.
- 7. Assignment on More of TUG India Document
 - Reproduce as many commands as possible from chap11-prn.pdf
 - > This file has been provided in the Code files.
 - > You may copy-paste, directly, from pdf.
 - > If a command does not work, see if a package has to be used.

8. Assignment on Paragraph Indent

- > We used a command that removes paragraph indents
- > Delete this command and repeat this tutorial
- > What does this command do?
- > Try this command in other LaTeX spoken tutorials also