

Intructions: Use \LaTeX to typeset a document containing each component described below. Turn in your lab by emailing it to jamesju@mnstate.edu. You should email both your raw TeX (.tex) file and your compiled document (in either .ps or .pdf form). You will be graded on both your raw TeX code and the accuracy of your compiled document.

1. In the preamble of your document, put in commands that give your final document the following properties:

- Make the document class “article”, the font size 11 point and the paper size “letter”.
- include the packages: amsmath, amssymb, amfonts, bm, latexsym, color
- Make the height of the text area of your pages 9.25 inches and the width of the text 6.5 inches.
- make the top margin 0.25 inches, the odd side margin 0.25 inches, and the even side margin 0.75 inches.

2. Typeset the following text [It is up to you to figure out the proper font to use for each part below. All fonts used were either mentioned in class, or have a shortcut button in TeXnicCenter].

- (a) **This typeface looks LOUD!!!.**
- (b) *This typeface looks a bit fancy...*
- (c) This typeface looks old school.
- (d) *THIS TYPE FACE IS CURVY.*

[I used the command \backslash , to put space between these words]

- (e) THIS FONT IS COOL.

3. Typeset each of the following expressions. You will need to hunt down some special symbols for most of these.

- (a) $\delta \Rightarrow \infty$
- (b) $\Gamma_\alpha = \{V, E\}$
- (c) $\forall x \in X \exists y \ni \neg z$
- (d) $[(A \cup B) \cap C] \subseteq (A \cap B) \cup (A \cap C)$
- (e) $(\vec{v} \times \vec{w}) \cdot \vec{z}$
- (f) $\frac{\sqrt[3]{x^2 - y^3}}{\sum \beta_j}$
- (g) $\int_0^1 \int_{x^2}^{3x-5} e^{xy} dy dx$
- (h) $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
- (i) $\rightarrow \longrightarrow \nearrow \searrow \swarrow \nwarrow \mid$
- (j) $\leq \prec \triangleleft \triangleright \Delta \nabla$