

LaTeX Homework

1. Typeset the following (you'll turn in your .tex file):

(a)

$$f(x) = \sqrt{\frac{x^4 - x + 1}{x^4 + x + 1}}$$

(b)

$$100e^{-x/100} = \frac{x^2}{100}$$

(c)

$$\int_a^b f(x) dx = F(b) - F(a)$$

(d)

$$\lim_{n \rightarrow \infty} \sum_{i=1}^n f(x_i^*) \Delta x_i = \int_a^b f(x) dx$$

(Notice where $n \rightarrow \infty$ appears)

(e)

$$\lim_{\theta \rightarrow 0} \left(\frac{\sin(\theta)}{\theta} \right)^{2\theta}$$

(Notice the size of the parentheses and that sin is NOT italicized)

(f)

$$\underbrace{a + b + \cdots + z}_{26}$$

(g) I ♥ Math!

2. Answer the following (use the LaTeX manual on the desk):

(a) What's a "phantom"? Illustrate how it is used.

(b) How do we get *numbered* equations?

(c) What does: `\quad` or `\qquad` do? Answer by giving an example of its usage.

3. Try to find out how you would type the following in LaTeX (Hint: We start with `\begin{array}{l|r}`)

Function	Derivative
$x^4 - 3x + 2$	$4x^3 - 3$
$\sin(x)$	$\cos(x)$

What do the `l` and `r` do after the array command? (Hint: They stand for left and right).

4. Download the image files from the class website, and see if you can put them into your solution sheet (We'll help with this later).