Math 114 Fall 2013

Lalit Jain

September 17, 2013

The point of this note is "DON'T FORGET YOUR PARENTHESIS WHEN YOU PLUG IN THINGS." Let $f(x) = \frac{1}{x^2+3}$. We are going to compute several examples.

- $$\begin{aligned}
f(x-2) &= \frac{1}{(x-2)^2 + 3} \\
&= \frac{1}{x^2 - 4x + 4 - 3} \\
&= \frac{1}{x^2 - 4x + 1}
\end{aligned}$$

- $$\begin{aligned}
f(2x) &= \frac{1}{(2x)^2 + 3} \\
&= \frac{1}{2x \cdot 2x + 3} \\
&= \frac{1}{4x^2 + 3}
\end{aligned}$$

- $$\begin{aligned}
f(-x) &= \frac{1}{(-x)^2 + 3} \\
&= \frac{1}{x^2 + 3}
\end{aligned}$$