**Quotations in \LaTeX**

**BAD**

"This is a quote."

'This is a quote.'

**GOOD**

“This is a quote.”

‘‘This is a quote.’'

---

**Text inside of the math environment**

**BAD**

\[
\frac{\text{rate of change of } y}{\text{rate of change of } x}
\]

**GOOD**

\[
\frac{\text{rate of change of } y}{\text{rate of change of } x}
\]

---

**Italics**

**BAD**

This proof is *extremely* easy.

This proof is $\textit{extremely}$ easy.

**GOOD**

This proof is *extremely* easy.

This proof is \textit{extremely} easy.
Math Operators
BAD
\[
sin x, \cos x, \ln(x)
\]
\[
sin(x), \cos(x), \ln(x)
\]
\[
limit_{x \to 0} f(x)
\]
GOOD
\[
sin x, \cos x, \ln(x - 2)
\]
\[
limit_{x \to 0} f(x)
\]
Pro Tip: If you need a new operator you can define it in your preamble. For example if I put this in the preamble:
\[
def\deg{\operatorname{deg}}
\]
Then I can use it:
\[
deg(p(x)q(x)) = \deg(p(x)) + \deg(q(x))
\]
Multiplication Signs
BAD
\[
x \ast y
\]
\[
x \times y
\]
\[
x.y
\]
OKAY
\[
x \cdot y
\]
GOOD
\[
xy
\]
\[
0 \cdot f'(c)
\]