

# CPSC418 LaTeX Document

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This is a LaTeX document. Here's some **bold text**. How about some *italics*? This should be a new paragraph, right? We're about 33% of the way through this class.

This is a true second paragraph. Not sure how to format something in L<sup>A</sup>T<sub>E</sub>X? Try <https://google.ca> or Duck Duck Go.

## Question One

This this the start of an answer to question one.

This paragraph will go back to the standard indent style.

## Part A

More text!

This is something I am quoting from somewhere else.<sup>1</sup>

This text should look like an old timey typewriter.  
Second line starts here?

1. First item!
  2. Second item!
  3. Third item.
- Bullet one.
  - Bullet two.

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<sup>1</sup>My citation for this is blah blah blah AMA style.

## Math-related LaTeX

$$\mathcal{N}(x|\mu, \sigma) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\left(\frac{x-\mu}{\sigma}\right)^2} \quad (1)$$

Look at Equation 1, it's a classic probability distribution.

$$\text{Beta}(p|\alpha, \beta) = \begin{cases} \frac{\Gamma(\alpha+\beta)}{\Gamma(\alpha)\Gamma(\beta)} p^{\alpha-1} (1-p)^{\beta-1} & , 0 < p < 1 \\ 0 & , \text{otherwise.} \end{cases} \quad (2)$$

$$\Gamma(x) = (x-1)! \quad (3)$$

It turns out for the Beta distribution,  $\hat{\mu} = \frac{\alpha}{\alpha+\beta}$ . \$100 dollars.  $\sum_{x=1} 2^{-x} = 1$ .  
 $\mathbb{N}, \mathbb{Z}, \mathbb{R}$

## I Test A Change of Numbering

Currently we're using Roman numerals. Note this is actually the second section, yet it's numbered as if it was the first. Suppressing section numbers also prevents the section count from incrementing.

### I.1 What This Looks Like for Subsections