

# My LaTeX Document

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# Contents

<b>1</b>	<b>Hello World</b>	<b>1</b>
1.1	How Hello World is bad . . . . .	1
<b>2</b>	<b>Maths</b>	<b>2</b>
2.1	Inline Method of Maths . . . . .	2
2.2	Dedicated Equation Environment . . . . .	2
2.3	Alignment . . . . .	2
2.4	Fractions, Integral Sign, and more . . . . .	2
2.5	Matrices . . . . .	3
<b>3</b>	<b>Images</b>	<b>4</b>
3.1	Image positioning . . . . .	4
3.2	Multiple Images . . . . .	4
3.3	More Position Formatting in Images . . . . .	5
<b>4</b>	<b>Table Of Contents</b>	<b>5</b>
4.1	Images and Tables in Table Of Contents . . . . .	5
<b>5</b>	<b>Bibliography and Citations</b>	<b>5</b>
5.1	Footnote References . . . . .	5
<b>6</b>	<b>Footnotes</b>	<b>5</b>

# 1 Hello World

Section name is Hello World

## 1.1 How Hello World is bad

hello my name is abhiroop mukherjee

### 1.1.1 subsubsection

hello how are you

**paragraph** my name is not abhiroop mukherjee

**subparagraph** fsf

## 2 Maths

### 2.1 Inline Method of Maths

This is the way to do maths  $f(x) = 100x^2$  in line

### 2.2 Dedicated Equation Environment

$$f(x) = 100x^2$$

### 2.3 Alignment

see the '=' is aligned

$$\begin{aligned} 1 + 2 &= 3 \\ 1 &= 3 - 2 \\ 0 &= 3 - 2 - 1 \\ 1 + 2 - 3 &= 0 \end{aligned}$$

### 2.4 Fractions, Integral Sign, and more

$$f(x) = 100x^2 \tag{1}$$

$$\begin{aligned} f'(x) &= \frac{d(100x^2)}{dx} \\ &= 100 \frac{d(x^2)}{dx} \\ &= 100.(2x) \\ f'(x) &= 200x \end{aligned} \tag{2}$$

$$\begin{aligned} f(x) &= \int_x^0 f'(x)dx \\ &= \int_x^0 200xdx \\ &= 200 \int_x^0 xdx \\ &= 200 \left[ \frac{x^2}{2} \right]_0^x \\ &= 200. \frac{x^2}{2} \\ &= 100x^2 \end{aligned} \tag{3}$$

$$g(x) = 10\sqrt{x} \tag{4}$$

$$g'(x) = \frac{d}{dx} (10\sqrt{x}) \tag{5}$$

$$= 10 \left( \frac{1}{2\sqrt{x}} \right) \tag{6}$$

$$g'(x) = \frac{5}{\sqrt{x}} \tag{7}$$

## 2.5 Matrices

Sample Matrix

$$\begin{matrix} 1 & 0 \\ 0 & 1 \end{matrix} \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$$

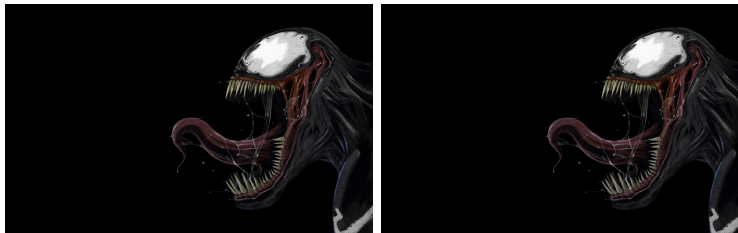
### 3 Images

#### 3.1 Image positioning



Figure 1: Image of venom

#### 3.2 Multiple Images



(a) Venom.

(b) More Venom.

Figure 2: The same Venom. Two times.

### 3.3 More Position Formatting in Images

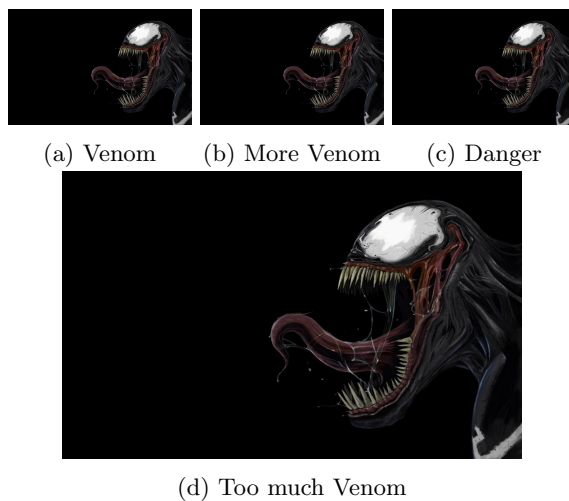


Figure 3: Venom in Various Sizes

## 4 Table Of Contents

### 4.1 Images and Tables in Table Of Contents

Commented due to numbering problem

## 5 Bibliography and Citations

commented as doesn't works well with biblatex

### 5.1 Footnote References

Random Citations<sup>1</sup> embedded in text

## 6 Footnotes

This is some sample text <sup>2</sup>  
I'm Referring to footnote 2.

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<sup>1</sup>R. J. Green, U. P. Fred, and W. P. Norbert. "Things that Go Bump in the Night". In: *Psych. Today* 46 (1900), pp. 345–678.

<sup>2</sup>Hello Footnote