# Report Title

Author name Author description

 $March\ 5,\ 2023$ 

#### Abstract

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## Chapters and Sections

#### 1.1 Sample section 1

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#### 1.2 Sample section 2

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#### 1.2.1 Sample subsection 1

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#### 1.2.2 Sample subsection 2

Tincidunt tortor aliquam nulla facilisi. Et pharetra pharetra massa massa ultricies. Porta lorem mollis aliquam ut. Faucibus purus in massa tempor nec feugiat nisl pretium fusce. Fames ac turpis egestas maecenas. Justo laoreet sit amet cursus sit amet dictum. Auctor eu augue ut lectus arcu.

#### 1.2.3 Sample subsection 3

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#### Sample subsubsection 1

Faucibus purus in massa tempor nec feugiat nisl pretium fusce. Fames ac turpis egestas maecenas. Justo laoreet sit amet cursus sit amet dictum. Auctor eu augue ut lectus arcu.

#### Sample subsubsection 2

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#### 1.3 Sample section 3

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## Text formatting

#### 2.1 Bold

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#### 2.2 Italic

Lorem *ipsum dolor sit amet*, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut *labore et dolore* magna aliqua.

#### 2.3 Underline

Lorem <u>ipsum dolor sit amet</u>, consectetur adipiscing elit, sed do eiusmod tempor incidid<del>unt ut labore et dolore magna aliqua.</del>

### 2.4 Emphasising text

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

## Lists

#### 3.1 Unordered Lists

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

- Item 1
- Item 2
- Item 3

#### 3.2 Ordered Lists

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

- 1. Item 1
- 2. Item 2
- 3. Item 3

#### 3.3 Descriptive Lists

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Item 1

- Item 2 Description Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
- Item 3 Description Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

#### 3.4 Nested Lists

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

- Item 1
  - 1. Item 2.1
  - 2. Item 2.2
  - 3. Item 2.3
- Item 3
  - Item 2 Description Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
  - Item 3 Description Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

# **Figures**

## 4.1 Images

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.(Figure 4.1)





Figure 4.1: Nature Wallpaper

# **Tables**

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.(Table 5.1)

cell1	cell2	cell3
cell1	cell2	cell3
cell1	cell2	cell3

cell1	cell2	cell3
cell1	cell2	cell3
cell1	cell2	cell3

Table 5.1: Sample table

## Mathematics

#### Mathematical expressions 6.1

$$x^n + y^n = z^n$$

$$\sqrt{x^2 + 2x + 1}$$

$$\sqrt{x^2 + 2x + 1}$$

$$\frac{\sqrt{x^2 + 2x + 1}}{\sqrt{x^2 + 2x + 1}}$$

$$\alpha\beta\gamma\delta\epsilon$$

$$C\supset \subseteq \mathbb{I}$$

$$\begin{array}{ccc} \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \\ 1 & 2 & 3 \end{array}$$

$$4 \ 5 \ 6$$

$$\begin{pmatrix}
1 & 2 & 3 \\
4 & 5 & 6
\end{pmatrix}$$

$$\begin{bmatrix}
1 & 2 & 3 \\
4 & 5 & 6
\end{bmatrix}$$

$$\begin{bmatrix}
1 & 2 & 3 \\
4 & 5 & 6
\end{bmatrix}$$

$$\begin{bmatrix}
1 & 2 & 3 \\
4 & 5 & 6
\end{bmatrix}$$

$$\begin{bmatrix}
1 & 2 & 3 \\
4 & 5 & 6
\end{bmatrix}$$

$$\hat{1}$$
 2 3

$$\begin{vmatrix} 1 & 2 & 6 \\ 4 & 5 & 6 \end{vmatrix}$$

$$\begin{cases} 1 & 2 & 3 \\ 4 & 5 & 6 \end{cases}$$

$$||1 \quad 2 \quad 3||$$

$$\begin{bmatrix} 1 & 2 & 5 \\ 4 & 5 & 6 \end{bmatrix}$$

#### Quote 6.2

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.  $x^n + y^n = z^n$ 

## Code Listing

#### 7.1 Verbatim

```
num1 = 1.5
num2 = 6.3

sum = num1 + num2

print('The sum of {0} and {1} is {2}'.format(num1, num2, sum))
```

### 7.2 Use listings package for code listings

```
num1 = 1.5
num2 = 6.3

sum = num1 + num2

print('The_sum_of_{0}_and_{1}_is_{2}'.format(num1, num2, sum))
```

## 7.3 Import code from an external file

```
Listing 7.1: Python code for adding two numbers

num1 = 1.5

num2 = 6.3

sum = num1 + num2

print('The_sum_of_{0}_and_{1}_is_{2}'.format(num1, num2, sum))
```

## Colors

#### 8.1 Default Colors

- Item 1
- Item 2
- Item 3
- Item 4
- Item 5
- Item 6

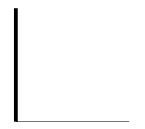
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

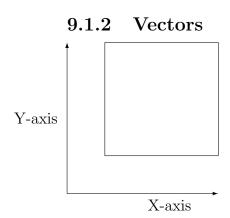
#### 8.2 Custom Colors

- My Custom Color 1
- My Custom Color 2
- My Custom Color 3
- My Custom Color 4

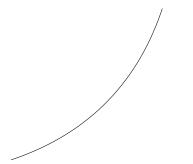
# Diagrams and Graphics

- 9.1 Line Drawing
- 9.1.1 Simple Line

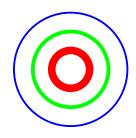




## 9.1.3 Bezier Curves

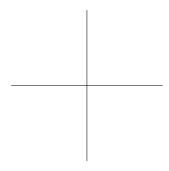


## 9.1.4 Circle

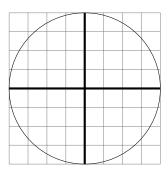


# TikZ Package for Complex Drawings

## 10.1 Line Drawing



## 10.2 Grids



#### 10.3 Curves

•

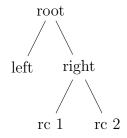


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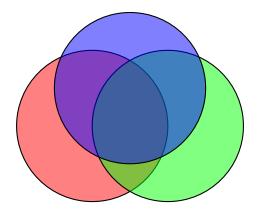
## 10.4 Looping Elements



## 10.5 Tree Structure



## 10.6 Colored Diagrams

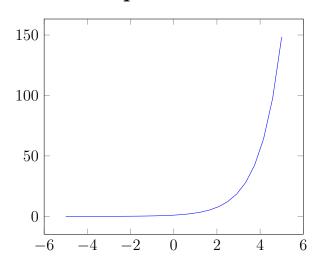


## 10.7 Shades

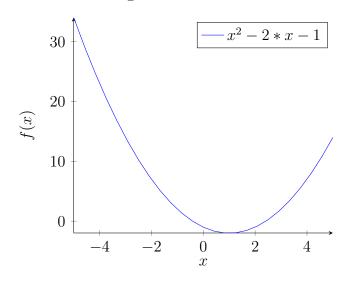


# **Graph Plotting**

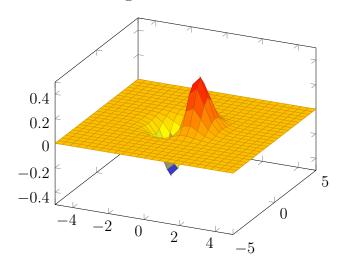
## 11.1 2D plots

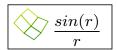


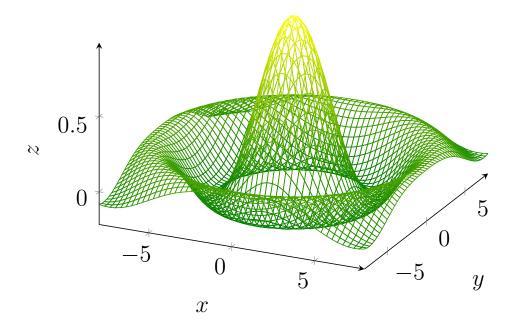
## 11.2 2D plots



# 11.3 3D plots







## Theorems and Proofs

**Theorem 1.** Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

**Theorem 2** (Pythagorean Theorem). The sum of the squares on the legs of a right triangle is equal to the square on the hypotenuse

$$a^n + b^n = c^n$$

Corollary 2.1. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Lemma 2.1. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

*Proof.* Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.  $\Box$ 

## **Fonts**

#### 13.1 Font Sizes

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#### 13.2 Font Families

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At risus viverra adipiscing at in tellus integer feugiat.

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#### 13.3 Font Styles

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## Referencing

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# Indexing

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# Alphabetical Index

dolore, 25 elit, 25 ipsum, 25