

*Sample Latex Document*

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# Title 1

## Title 2

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## Contents

<b>1</b>	<b>Text and Tables</b>	<b>1</b>
1.1	Text Formatting . . . . .	1
1.1.1	Lorem Ipsum . . . . .	1
1.2	Tabular Formatting . . . . .	1
1.2.1	Table . . . . .	1
<b>2</b>	<b>Mathematical Formatting</b>	<b>1</b>
2.1	In-line Mathematics . . . . .	1
2.2	Some Equations . . . . .	1
<b>3</b>	<b>Graphics and Diagrams</b>	<b>2</b>
3.1	Circuit Diagram . . . . .	2
3.2	Graphics . . . . .	2
<b>4</b>	<b>Code Listings</b>	<b>3</b>
4.1	. . . . .	3
4.2	SampleClass.java . . . . .	3

# 1 Text and Tables

## 1.1 Text Formatting

The document is written in **whichever formatting is appropriate**. It can be broken into sections, subsections, subsubsections paragraphs, and make reference to included images, graphics, math, equations, code and bibliography.

### 1.1.1 Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Cursus eget nunc scelerisque viverra mauris in aliquam sem. Blandit volutpat maecenas volutpat blandit aliquam etiam erat. Etiam sit amet nisl purus in mollis nunc sed id. Consequat interdum varius sit amet mattis vulputate enim. Non curabitur gravida arcu ac tortor dignissim convallis. Facilisi etiam dignissim diam quis enim lobortis scelerisque. Purus semper eget duis at tellus at urna. Vel pharetra vel turpis nunc eget lorem dolor sed. Vestibulum rhoncus est pellentesque elit. Ultricies leo integer malesuada nunc vel risus commodo viverra. Dui sapien eget mi proin sed. Adipiscing vitae proin sagittis nisl rhoncus mattis rhoncus urna.

## 1.2 Tabular Formatting

We can represent data in a tabular format, as in Table 1.

### 1.2.1 Table

Hours	Minutes	Seconds
0	0	0
1	60	3600
2	120	7200
24	1440	86400

Table 1: *An example of a simple table*

# 2 Mathematical Formatting

## 2.1 In-line Mathematics

Math formulas can appear in line in text such as  $y = \frac{m}{x} + b$  or be referenced as a standalone equation, such as Eq. (1) and Eq. (2).

## 2.2 Some Equations

$$I_D = I_S \left[ \exp \left( \frac{V_D}{V_T} \right) - 1 \right] \quad (1)$$

$$V_D = v_s - V_R \quad (2)$$

### 3 Graphics and Diagrams

Figure 1 is a wiring diagram of a simple resistive circuit with a diode. Eq. (1) and Eq. (2) are theoretical mathematical formulas for the expected quantities one would measure in the circuit.

Figure 2 shows a graphical plot of the theoretical equations (1) and (2) as applicable to the circuit in figure 1.

#### 3.1 Circuit Diagram

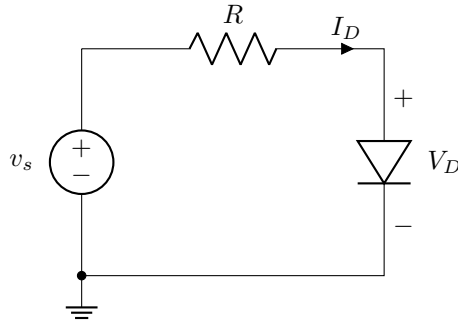


Figure 1: A Circuitikz Diagram.

#### 3.2 Graphics

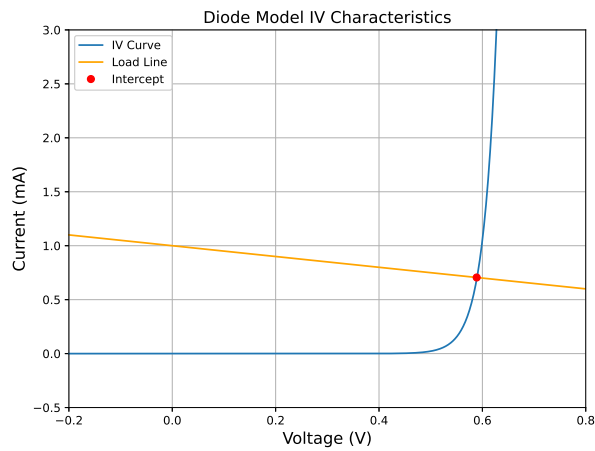


Figure 2: Graphical representation of the Diode model.

## 4 Code Listings

### 4.1

Verbatim code listings can be directly represented with appropriate syntax highlighting applied for whichever programming language is being represented. Figure 3 is a code listing of a generic Java class.

### 4.2 SampleClass.java

```
1 public class SampleClass extends Object implements Comparable<T>{
2
3     int var1;
4     String msg;
5
6     SampleClass(String msg){
7         super();
8         this.msg = msg;
9     }
10    @Override
11    public int compareTo(T o) {
12        return 0;
13    }
14    @Override
15    public String toString() {
16        return "SampleClass{" +
17            "msg='" + msg + '\',' +
18            '}'';
19    }
20 }
21
```

Figure 3: *SampleClass.java*