

# Example Assignment - 1

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## 1 Introduction

In this example, we show the basic functions of this class. This class is both compatible with pdf<sub>La</sub>TeX and Xe<sub>La</sub>TeX.

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## 2 Example environments

### 2.1 EXAMPLE OF FIGURE

Here we show Fig. 2.1a and Fig. 2.1b.

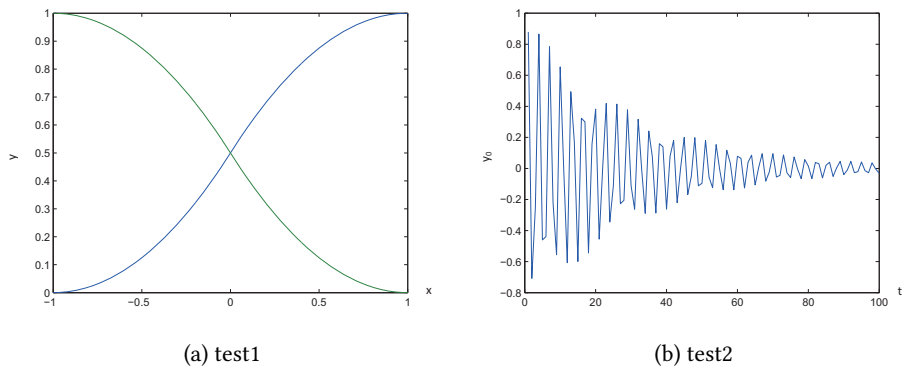


Figure 2.1: Test graphs.

### 2.2 EXAMPLE OF TABLE

Here we show an example, Table 2.1.

Table 2.1: Example table

Symbol	Description
$\alpha$	text 1
$\Gamma$	text 2
$\Omega$	text 3

Here we show another table, Table 2.2 is long and breakable.

Table 2.2: Example long table

Symbol	Description
$\alpha$	text 1
$\Gamma$	text 2

$\Omega$	text 3
$\chi$	a lot of rows
$\chi$	a lot of rows
$\chi$	a lot of rows
$\chi$	a lot of rows
$\chi$	a lot of rows
$\chi$	a lot of rows

### 2.3 EXAMPLE OF THEOREM

We refer Theorem 1 and Question 1 respectively.

**Theorem 1 (Title)** *Here we show an theorem.*

**Question 1 (Special exercise)** *Here we show a question.*

### 2.4 EXAMPLE OF ALGORITHM

Test Algorithm in Algorithm 1:

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**Algorithm 1** DWT Algorithm

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**Input:** Sequence  $\mathbf{x}$  in time domain

**Output:** Sequence  $\hat{\mathbf{x}}$  in wavelet domain

```

1:  $N = \lfloor \log_2(\text{length}(\mathbf{x})) \rfloor$ ;
2:  $\mathbf{c}_N = \mathbf{x}$ ,  $\hat{\mathbf{x}} = \emptyset$ ;
3: for  $i$  from 1 to  $N$  do
4:    $\mathbf{c}_{N-i}$ ,  $\mathbf{d}_{N-i} = \text{analysis\_filter}(\mathbf{c}_{N-i+1})$ ;
5:   insert  $\mathbf{d}_{N-i}$  at the beginning of  $\hat{\mathbf{x}}$ .
6: end for
```

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## 3 Example of special text

My name is Yuchen Yueen Jin, I am a graduate school student of University of Houston. My major is Electrical and Computer Engineering. I am not certain about whether I am a top student . Now I believe that I should not discuss about the topic about myself this topic .