

Course Code
Name of class

Tony Lam

December 25, 2025

Contents

Chapter 1

Style Verification	Page 2
1.1 Box Environments	2
1.1.1 Test subsection	

Chapter 2

Interaction & Logic	Page 3
2.1 Problem Solving	3
2.2 Algorithms & Math	3
2.3 Proof Styling	3

Chapter 3

Graphs	Page 4
3.1 Nodes	4
3.2 Trees	4
3.2.1 Normal text tree	
3.2.2 Binary Search Trees	
3.3 Arrays	5
3.4 Arrows	5
3.5 Venn Diagrams	5

Chapter 1

Style Verification

1.1 Box Environments

Definition 1.1: Sample Definition

This tests the red header box style with variable width.

Lemma 1.1 Consistency

All boxes should respect the chapter-based numbering.

Proposition 1.1 Simple Math

Testing math shortcuts: \mathbb{R} , \mathbb{C} , and ϵ .

Corollary 1.1 Visual Polish

Corollaries use the purple accent color.

Claim 1.1 Design

The Claim box uses a green borderline west style.

Example 1.1 (Working Example)

This tests the teal-framed example box.

$$\|x\|_p = \left(\sum_{i=1}^n |x_i|^p \right)^{1/p} \quad (1.1)$$

1.1.1 Test subsection

The art of yapping they say.

Chapter 2

Interaction & Logic

2.1 Problem Solving

Question 1: Logical Test

Does the Question counter reset at the start of a new chapter?

Solution

This is the solution environment. Note how the green header aligns with the question box above it.

Note:-

This is a floating note with a drop shadow. It is useful for highlighting non-critical but helpful information.

2.2 Algorithms & Math

Algorithm 1: The Cleanup Process

```
Input: Initial LaTeX code  
Output: Cleaned PDF  
/* Test of algorithm2e styling */  
1 if Compile is successful then  
2   | Keep working;  
3 end  
4 else  
5   | Check the log file;  
6 end
```

2.3 Proof Styling

Custom Proof Name: We use the `myproof` environment to ensure the QED symbol is the custom smiley face defined in the preamble. □

Chapter 3

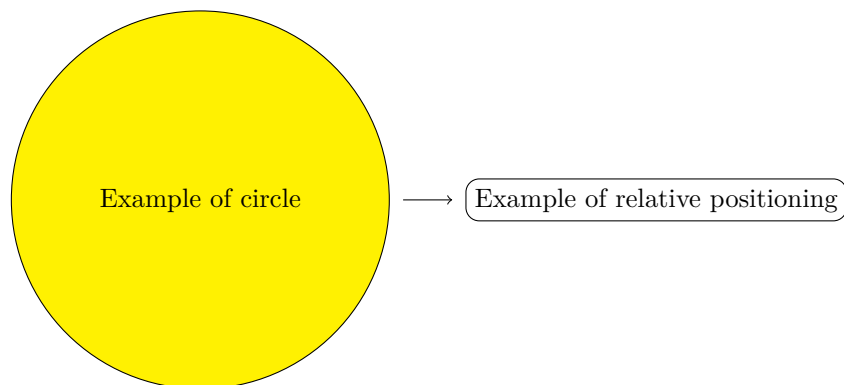
Graphs

Types:

- Nodes
- Trees
- Arrays
- Arrows
- Venn Diagrams

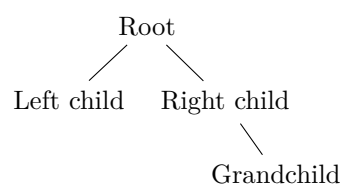
3.1 Nodes

Basic Syntax: `\node[options] (name) at (0, 0) {Text Content};`

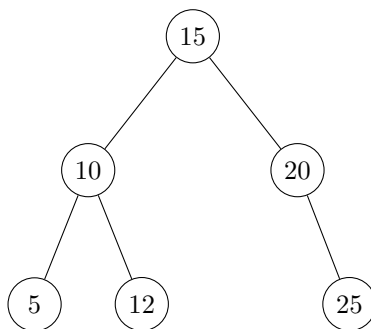


3.2 Trees

3.2.1 Normal text tree



3.2.2 Binary Search Trees



3.3 Arrays

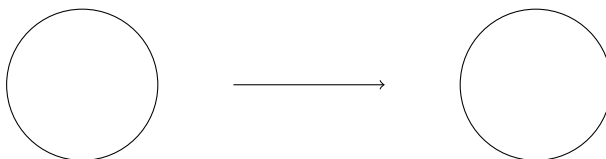
Index	0	1	2	3	4
Value	10	22	35	40	51

Table 3.1: Array via tabular

10	22	35	40	51
----	----	----	----	----

Figure 3.1: Array via tikzpicture

3.4 Arrows



3.5 Venn Diagrams

