Semester Learning Portfolio

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ABSTRACT

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0.1 Introduction for typst

$$\sum_{k=1}^{n} k = \frac{n(n+1)}{2} \tag{0.1}$$

$$\exp(x) = \sum_{n=0}^{\infty} \frac{x^n}{n!}$$

As we can see, it is not numbered.

0.2 Theorems

The template uses great-theorems for theorems. Here is an example of a theorem:

Theorem. (Example Theorem): This is an example theorem.

Proof. This is the proof of the example theorem.

We also provide definition, lemma, remark, example, and questions among others. Here is an example of a definition:

Definition. (Example Definition): This is an example definition.

Question. (Custom mathblock?): How do you define a custom mathblock?

Answer. You can define a custom mathblock like this:

```
#let answer = my-mathblock(
  blocktitle: "Answer",
  bodyfmt: text.with(style: "italic"),
)
```

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If you have appendices, you can add them after #show: appendices. The appendices are started with an empty heading = and will be numbered alphabetically. Any appendix can also have different subsections. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

1 Authentication + Link Layer Security

1.1 Network Security Assignment 1

Assignment.

Objective: Research and write a concise paragraph about techniques used to mitigate ARP spoofing and Spanning Tree Protocol (STP) attacks (Layer 2 attacks). Please write details on how the chosen technique detects and prevents the attack, and any potential limitations they may have in a network environment. Please also mention your opinion about the complexity of the techniques you found.

Answer. (ARP Spoofing Mitigation):

- 1) **Static ARP entries**: The use of static IP addresses for each device included in the network
- 1)
- 2)

1.2 Network Security Assignment 2

Assignment.

Objective: In this assignment we are going to emulate a Man-in-the-Middle (MITM) attack using this network topology.

As an attacker we should connect to the switch to be able to communicate with the target/victim hosts. From now on, we refer to our two targets hosts as victims.