Problem 1

This is an enumeration:

1. This is how you write $\mathbb{N}$, $\mathbb{R}$, $\mathcal{P}(\mathbb{N})$, $\varepsilon$, $\mathfrak{c}$ and $\aleph_0$.

2. This is a boolean function $f : \{0, 1\}^* \rightarrow \{0, 1\}$.

3. This is a set $L = \{w \in \Sigma^*: w \text{ has odd length}\}$.

4. This is an equation

\[ a + a \cdot r + a \cdot r^2 + \ldots + a \cdot r^{n-1} = \sum_{k=1}^{n-1} ar^k = a \left( \frac{1 - r^n}{1 - r} \right). \]

5. This text is in **bold** and this text is *emphasized*.

Definition 1  *This is a definition.*

Theorem 1  *This is a theorem.*

Problem 2

1) Answer to Problem 2(A) here.

2) Answer to Problem 2(B) here.