

## Problem Session #3

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**Course Policy:** Read all the instructions below carefully before you start working on the assignment, and before you make a submission.

- They are the questions that I am going to solve during the next problem session.
- You should examine these questions before the lecture.
- I will write ONLY answers of the questions on the white board during the lecture.
- Since I have already shared the questions on Moodle, to obtain the questions is your responsibility.
- Please attend the lecture because I will take your attendances.

**Problem 1: Sets**

(0 points)

Determine whether each of these statements is true or false.

(a)  $0 \in \emptyset$

(b)  $\emptyset \in \{0\}$

**(Solution)** False. The set on the right side has only one element namely the number 0 not an empty set.

(c)  $\{0\} \subset \emptyset$

(d)  $\emptyset \subset \{0\}$

(e)  $\{0\} \in \{0\}$

(f)  $\{0\} \subset \{0\}$

(g)  $\{\emptyset\} \subseteq \{\emptyset\}$

(h)  $\{0\} \in \{\{0\}\}$

**Problem 2: Venn Diagram**

(0 points)

Use a Venn diagram to illustrate the set of all months of the year whose names do not contain the letter R in the set of all months of the year.