

**Lab 07 - Assignment**  
**Sets**  
**CS 112 – Summer 2022**

**Description**



Huey, Dewey and Louie have some Avengers cards, if they complete the collection, they can exchange it for a **New Nintendo Switch 2**. At first each one wanted their own console, but they have decided to put all their cards together to see if they would complete the album.

**Each has the following cards:**

**Huey:** Captain America, Iron Man, Black Widow, Hulk, Spider Man

**Dewey:** Black Widow, Hulk, Thor, Winter Soldier

**Louie:** Black Widow, Hulk, Green Arrow, Spider Man, Winter Soldier

**Facts you already know:**

- The card collection consists of 8 different characters



**Requirements:**

- Use a set to represent which cards each of the siblings has
- Use math set theory to get the answers

**Output:**

- What different cards do they all have once they put their cards together?
- If they complete the collection print the message: **New Nintendo Switch 2 is on the way!**
- Does Dewey have the Captain America card? [Yes|No]?
- What are the cards that the 3 have? (e.g. each, Huey, Dewey and Louie has Black Widow)
- How many different cards does Huey have that none of his brothers have?
  - What cards are they?

**Allowed things:**

- Any arithmetic operators are all fine to use, such as +, -, \*, \*\*, /, %, and, or, =, etc.
- Any relational operator: <, <=, ==, etc.
- Branching: if, if-else, if-elif-else
- Lists, Tuples, Sets
- These functions `print()`, `int()`, `str()`, `range()`, `list()`, `set()`, `tuple()`

**Disallowed things:**

- You are not allowed to use any features not covered in lecture yet
- You are only allowed to use set build-in methods, but not any other method
- No hard coding