

Week 4 (September 12, 2022)

Monday: Read Chapter 8 (sections 8.4, 8.5) [All about Booleans]

All about "Booleans" and computing using Booleans.

In section 8.5 you'll see examples of "while" loops which are like "for" loops, just another way of getting a block of code to execute inside a loop.

A Boolean expression evaluates to either

True
or False

(Python understands both these terms)

So $(y \geq 0)$ is either True or False, depending on y 's value.

Q: What else does Python treat as True or False?

With numbers: 0 is False, 1 is True; more, any non-zero number is True.

With strings: any nonempty string (e.g., "I am not empty!") is True.
The empty string "" is False.

With lists: any nonempty list (e.g., [1, 2, 3, "Joe"]) is True
The empty list [] is False.

True applying the "bool()" function on these and you'll see this.

```
>> bool([])  
False
```

```
>> bool(573)  
True
```

Why are bool expressions useful?

We'll use them as "conditions" (go this way or that way based on a condition) in "if"-statements.

Wednesday: Read Chapter 5 (Sections 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7 and 5.8.1]

(We'll save string-formatting and File Input/Output for later).
