Aim: How do we use conditionals in Python?

Do Now Review: A **boolean** expression is **any expression that evaluates to be True or False**.

Any factual statement you make can be considered True or False.

These are your conditions in your statement!

```
if (condition)
        then ...
else if (some other condition)
        then ...
else
        ...
```

Comparison Operators→ Same as Javascript!

==	equal to
!=	not equal to
<	less than
<=	less than or equal to
>	greater than
>=	greater than or equal to

Note:
"=", means assignment - you're setting a variable equal to a value
"==" means "are these two things equal?"

Direct Instruction: *Boolean Operators*

Review: **Logical** operators:

- **Not**
  - turns a boolean expression into its opposite.
- **And**
  - evaluates both boolean terms together.
- **Or**
  - *either one of those statements being* True *makes the whole statement* True.

Code Along Mode

Example

Let’s use conditionals to determine the sign of a number! (positive, negative, or 0)

Replit!

Task 1: Evaluate the following expressions!

Statement A: You are in school

Statement B: We are learning Python

Statement C: Reptiles are mammals

1) A and B ⇒
2) B and C ⇒
3) A or B ⇒
4) A or C ⇒
5) not A⇒

6. 5>2
7. 8<8
8. 3>=3
9. 5<=2
10. “Hi”== “hi”
11. “hi”!= “yolo”

Age Responder

- Collect the age of the user
- Print a message depending on their age

25+	• Can rent a car • Can vote
18-25 (but not including 25)	• Can vote
Under 18	• Can't do either

How can you make your code efficient?

Summary

Efficient code often (but not always) requires checking the minimal number of conditions.

What is the **least** number of conditions required to properly run this program?

Why?