Learning Objectives:

- Students will learn how to use comparison operators in Python.
- Students will learn how to use logical operators in Python.
- Students will review assignment vs. equality

Standards:

9-12.CT.9 Systematically test and refine programs using a range of test cases, based on anticipating common errors and user behavior

Resources: Slides, Replit

Assessment: Student Discussions, Student Code

Aim: How do we write conditionals in Python?

Do Now: With a partner, consider the following question:

- 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!

Mini-lesson: Operators

- Students will be introduced to operators in Python.
    - Comparison operators
        - Assignment vs. Equality
    - Logical operators
- Students will code along as we write a short program using operators
    - Let's use conditionals to determine the sign of a number! (positive, negative, or 0)
        - user_number = int(input("Give me a number!"))
        - if user_number > 0:
            - print "That number is positive!"
        - elif user_number < 0:
            - print "That number is negative!"
        - Else:
            - print "That number is neither positive nor negative! It's 0!"

Task 1: Evaluate Expressions

- Students will evaluate expressions that use operators.
- Students should work with a partner
- Teacher should circulate during this time!
- At the end, there will be a brief share out of answers.

Task 2: Age Responder

- Students will create an age responder program.
    - 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

Summary: Students will be asked to consider the following question:

- 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?