Python Reader

Conditionals

Quest

True or false, is coding the coolest thing ever? We sure think so, but technically you could've said false. We use the **boolean variables `True` and `False`** to store the answers to *Yes* or *No* questions. Am I a student, yes or no? Is my refrigerator on, or is it off? In this section, we will learn how to ask some of these *True or False* questions in Python. We will look at some of the fundamental questions you can ask about data and how we can build upon these questions to make powerful programs.

Comparison Operations

Which is heavier, a kilo of rocks or a kilo of feathers? Actually, it's a trick question because *both* weigh exactly one kilogram! The idea of comparing two things is something that will come up *a ton* when programming. Luckily for us, Python has just what we need to get the job done! Each comparison operator takes two values and reasons something about their relationship. The result of the operation is a boolean value indicating whether the condition of that particular operation was met. Here are the comparison operators and an example of when each would return `True` and `False`:

Comparison Operator	Meaning	True Example	False Example
`==`	Equals	`1 + 1 == 2`	`2 == 3`
`!=`	Does not equal	`3.2 != 3`	`5 - 5 != 0`
`<`	Is less than	`5 < 7`	`2 < 1`
`>`	Is greater than	`4 > 2`	`1 > 9`
`<=`	Is less than or equal to	`90 <= 100`	`18.4 <= 4`
`>=`	Is greater than or equal to	`5.0 >= 5.0`	`11 >= 20`