How do we *compare* numerical and string data?
... with relational and equality operators!

Test	Math	Operator
"is greater than?"	>	>
"is at least?"	≥	>=
"is less than?"	<	<
"is at most?"	≤	<=
"is equal to?"	=	==
"is not equal to?"	≠	!=

The `equal to` Operator is `==`

- Two equals symbols side-by-side can be read as ***"is equal to?"***

  $$1 == 1 \text{ evaluates to } \texttt{True}$$
  $$1 == 2 \text{ evaluates to } \texttt{False}$$

- **<u>Important!</u>** Equality is *very different* from assignment!
  - = is read as "is assigned a value of"
  - == is read as "is equal to?"

- `b = x == y`

"The variable **b** is **assigned the result** of *evaluating* '**is x equal to y?**'"

The `not equal to` Operator is `!=`

- The ! symbol in many programming languages often means "NOT"

$$1 \ != \ 1 \text{ evaluates to } \textbf{False}$$

$$1 \ != \ 2 \text{ evaluates to } \textbf{True}$$

- **b** **=** x **!=** y

"The variable **b** is **assigned a value** of *evaluting* '**is x** *not* **equal to y?**'"