## **Applied Data Analytics**

# **Python Basics**

**Boolean Logic** 

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## **Boolean logic**

- George Boole (1815-1864)
- Basis of all things programming
- Define conditions (True or False) and combine them

### **Comparisons**

```
Comparison operators are ==, <, >, <=, >=, != a == b
True
Remember:
a < b = is used for assignment</li>
False
Classic error is trying to use it for comparison
You cannot compare any two variables
a != b
a != b
False
e.g. "two" < 3 will return an error</li>
```

### **Truth Table**

		not a	a and b	a or b
a	b			
<b>V</b>	<b>V</b>	X	<b>V</b>	<b>V</b>
<b>V</b>	X	X	X	<b>V</b>
X	<b>V</b>	V	X	<b>V</b>
×	×	V	×	X