Python Cheat Sheet - Basic Data Types

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	Description	Example
Boolean	The Boolean data type is a truth value, either True or False. The Boolean operators ordered by priority: not x ➜ "if x is False, then x, else y" x and y ➜ "if x is False, then x, else y" x or y ➜ "if x is False, then y, else x" These comparison operators evaluate to True: 1 < 2 and 0 <= 1 and 3 > 2 and 2 >=2 and 1 == 1 and 1 != 0 # True	```## 1. Boolean Operations` `x, y = True, False` `print(x and not y) # True` `print(not x and y or x) # True`  `## 2. If condition evaluates to False` `if None or 0 or 0.0 or '' or [] or {} or set():` ` print("Dead code") # Not reached```
Integer, Float	An integer is a positive or negative number without floating point (e.g. 3). A float is a positive or negative number with floating point precision (e.g. 3.14159265359). The '//' operator performs integer division. The result is an integer value that is rounded towards the smaller integer number (e.g. 3 // 2 == 1).	```## 3. Arithmetic Operations` `x, y = 3, 2` `print(x + y) # = 5` `print(x - y) # = 1` `print(x * y) # = 6` `print(x / y) # = 1.5` `print(x // y) # = 1` `print(x % y) # = 1s` `print(-x) # = -3` `print(abs(-x)) # = 3` `print(int(3.9)) # = 3` `print(float(3)) # = 3.0` `print(x ** y) # = 9```
String	Python Strings are sequences of characters. The four main ways to create strings are the following. 1. Single quotes 'Yes' 2. Double quotes "Yes" 3. Triple quotes (multi-line) """Yes We Can""" 4. String method str(5) == '5' # True 5. Concatenation "Ma" + "hatma" # 'Mahatma' These are whitespace characters in strings. • Newline \n • Space \s • Tab \t	```## 4. Indexing and Slicing` `s = "The youngest pope was 11 years old"` `print(s[0]) # 'T'` `print(s[1:3]) # 'he'` `print(s[-3:-1]) # 'ol'` `print(s[-3:]) # 'old'` `x = s.split() # creates string array of words` `print(x[-3] + " " + x[-1] + " " + x[2] + "s")` ` # '11 old popes'`  `## 5. Most Important String Methods` `y = " This is lazy\t\n "` `print(y.strip()) # Remove Whitespace: 'This is lazy'` `print("DrDre".lower()) # Lowercase: 'drdre'` `print("attention".upper()) # Uppercase: 'ATTENTION'` `print("smartphone".startswith("smart")) # True` `print("smartphone".endswith("phone")) # True` `print("another".find("other")) # Match index: 2` `print("cheat".replace("ch", "m")) # 'meat'` `print(','.join(["F", "B", "I"])) # 'F,B,I'` `print(len("Rumpelstiltskin")) # String length: 15` `print("ear" in "earth") # Contains: True```

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