

## Python 1 Cheatsheet

### OPERATORS

Symbol	What it does	Example
+	addition	5 + 5
-	subtraction	5 - 5
*	multiplication	5 * 5
/	division	5 / 5
**	exponent	5**5 (5 to the fifth power)
%	modulus (remainder)	5 % 2 (results in 3)
==, is	Equals	5 == 5 results in True 9 is 9 results in True 5 is 7 results in False
!=, is not	Not equals	5 != 5 results in False 5 is not 7 results in True
>	Greater than	5 > 6 results in False 11 > 6.23 results in True
>=	Greater than or equal to	5 >= 4 results in True
<	Less than	4 < 5 results in True
<=	Less than or equal to	4 <= 5 results in True

### VARIABLE TYPES

Variable Type	Description	Casting	Examples
integer	whole number	int()	5, -11, 0
float	decimal number	float()	9.57, -0.2, 110.24, 4.
string	ordered, immutable character container	str()	"word", "lots of words", "words and numbers 582 29 in quotes"
list	ordered, mutable container	list()	[1,2,3,4] ; ["hi", "bye", 9, -22.1]
dictionary	unordered, mutable container (associative array)	dict()	{"key1":"value1", 9: "three-squared"}
tuple	ordered, immutable container	tuple()	(4, 9) ; ("word1", "word2", "word3")

### USEFUL STRING METHODS

Method	Description	Example
.upper()	converts to upper case	hi = "my string" hi.upper() returns "MY STRING"
.lower()	converts to lower case	hi = "My String" hi.lower() returns "my string"
.split()	split a string on a value into a list	hi = "comma,separated,values,in,the,string" hi.split(",") returns ['comma', 'separated', 'values', 'in', 'the', 'string']
.strip()	removes leading/trailing whitespace/value	hi = "my string" hi.strip() returns "my string" (there was no leading/trailing whitespace!) hi.strip("g") returns "my strin"
.count()	count instances of a character in a string	hi = "my letterful string" hi.count("t") returns 3
.replace()	replace all instances of a value	hi = "silliness" hi.replace("s", "5") returns "5illine55"

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### USEFUL LIST METHODS

Method	Description	Example
<code>.append()</code>	Add value to the end of a list	<code>my_list.append(5)</code>
<code>.insert()</code>	Add value to a specific index in a list	<code>my_list.insert(5, "index #5 will be this string")</code>
<code>.remove()</code>	Remove all occurrences of a particular value from a list	<code>my_list.remove(5)</code>
<code>.index()</code>	Determine the index of a particular list value	<code>my_list.index(5)</code>

### USEFUL DICTIONARY METHODS

Method	Description	Example
<code>.keys()</code>	Return a list of all keys in a dictionary	<code>my_dict.keys()</code>
<code>.values()</code>	Return a list of all values in a dictionary	<code>my_dict.values()</code>
<code>.items()</code>	Return a list of (key,value) tuples from a dictionary	<code>my_dict.items()</code>