


Cheat Sheet(Shit) - Introduction to Computer Science — 67101

January 20, 2026




Example 0.1 (bool function):

```
1  def bool_examples() {
2      print("--- The following will print False: ---")
3      print(bool(None))
4      print(bool(False))
5      print(bool(0))
6      print(bool(0.0))
7      print(bool())
8      print(bool(""))
9      print(bool([]))
10     print(bool(()))
11     print(bool({}))
12     print("--- The following will print True: ---")
13     print(bool(42))
14     print(bool(7.4))
15     print(bool("Bla"))
16     print("Hello, world!");
17 }
```

 Python


Example 0.2 (array shortcuts):

```
1  def array_shortcuts_examples() {
2      text = "Python"
3      text[0] == "P" # Takes the value in the index
4      text[-1] == "n" # Takes the last
5      text[1:4] == "yth" # Slice from 1 to 4 (meaning indices {1,2,3})
6      text[:3] == "Pyt" # Take from start 3 values
7      text[3:] == "hon" # Take from end 3 values
8      text[::2] == "Pto" # Take every second value (meaning mod 2)
9      text[::-1] == "nohtyP" # Reverse
10 }
```

 Python

Example 0.3 (string functions):

```
1  def string_functions_examples() {
2      "a".upper() == "A"
3      "a".lower() == "a"
4      "a".lower() == "a"
5      "1".lower() or "1".upper() == "1"
6      " a ".strip() == "a" #Removes white space from start or end only
7      "a b".split() == ["a", "b"] #Split to list by indicating sign, default space
8      "-".join(["a", "b"]) == "a-b" #Just as in C#
9  }
```

 Python

Example 0.4 (math functions):

```

1  def math_functions_examples() {
2      10 / 3 = 3.3333333333333335 # Divide
3      10 // 3 = 3 # Divide without reminder (scale down)
4      10 % 3 == 1 # Reminder from division
5      2 ** 3 == 8 # 2 in the power of 3
6      "a".upper() == "A"
7      "a".lower() == "a"
8      "a".lower() == "a"
9      "1".lower() or "1".upper() == "1"
10     " a ".strip() == "a" # Removes white space from start or end only
11     "a b".split() == ["a", "b"] # Split to list by indicating sign, default space
12     "-".join(["a", "b"]) == "a-b" # Just as in C#
13 }

```

Example 0.5 (C# VS Python):

C#	Python
1 <code>Select()</code>	1 <code>map</code>
1 <code>Where()</code>	1 <code>filter</code>
1 <code>Aggregate()</code>	1 <code>reduce</code>
1 <code>OrderBy()</code>	1 <code>sorted</code>
1 <code>OrderByDescending()</code>	1 <code>sorted(reverse=True)</code>
1 <code>Sum()</code>	1 <code>sum</code>
1 <code>Count()</code>	1 <code>len</code>
1 <code>Any()</code>	1 <code>any</code>
1 <code>All()</code>	1 <code>all</code>
1 <code>First()</code>	1 <code>next</code>
1 <code>FirstOrDefault()</code>	1 <code>next(, default)</code>
1 <code>Skip()</code>	1 <code>[n:]</code>
1 <code>Take()</code>	1 <code>[:n]</code>
1 <code>Distinct()</code>	1 <code>set</code>