

First Programming Concepts Cheat Sheet

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Functions and Keywords

Functions and keywords are the building blocks of a language's syntax.

Functions are pieces of code that perform a unit of work. In the examples we've seen so far, we've only encountered the `print()` function, which prints a message to the screen. We'll learn about a lot of other functions in later lessons but, if you're too curious to wait until then, you can discover all the functions available [here](#).

Keywords are reserved words that are used to construct instructions. We briefly encountered `for` and `in` in our first Python example, and we'll use a bunch of other keywords as we go through the course. For reference, these are all the reserved keywords:

False	class	finally	is	return
None	continue	for	lambda	try
True	def	from	nonlocal	while
and	del	global	not	with
as	elif	if	or	yield
assert	else	import	pass	
break	except	in	raise	

You don't need to learn this list; we'll dive into each keyword as we encounter them. In the meantime, you can see examples of keyword usage [here](#).

Arithmetic operators

Python can operate with numbers using the usual mathematical operators, and some special operators, too. These are all of them (we'll explore the last two in later videos).

- **$a + b$** = Adds a and b
- **$a - b$** = Subtracts b from a
- **$a * b$** = Multiplies a and b
- **a / b** = Divides a by b
- **$a ** b$** = Elevates a to the power of b. For non integer values of b, this becomes a root (i.e. $a**(1/2)$ is the square root of a)
- **$a // b$** = The integer part of the integer division of a by b
- **$a \% b$** = The remainder part of the integer division of a by b