Comparison operator	Operator	Example	Evaluates to
Equal to	==	“fred” == “sid”	False
Not equal to	!=	8 != 8	False
Greater than	>	10 > 2	True
Greater than or equal to	>=	5 >= 5	True
Less than	<	40 < 34	False
Less than or equal to	<=	2 <= 109	True

Selection (if)		
Syntax	**Description**	**Example**

if <expression>:
    <commands>
	If <expression> is true then commands are executed.	if colour == "green":
		    print("It is safe for you to cross.")

if <expression>:
    <commands1>
else:
    <commands2>
	If<expression> is true then<commands1> are executed otherwise <commands2> are executed	if colour == "green":
		    print("It is safe for your to cross.")
		else:
		    print("STOP! It is not safe to cross.")

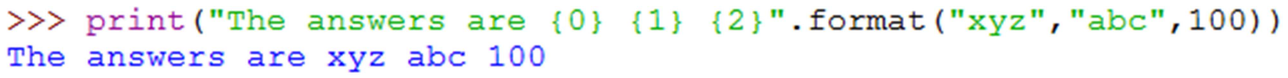
if <expressionA>:
    <commands1>
elif <expressionB>:
    <commands2>
elif <expressionC>:
    <commands3>
else:
    <commands4>
	If <expressionA> is true then <commands1>are executed, else if <expressionB> is true then <commands2>are executed, etc else <commands4 are executed.	if answer == 1:
		    print("You will make a new friend this week.")
		elif answer == 2:
		    print("You will do well in your GCSEs.")
		elif answer == 3:
		    print("You will find something you thought you’d lost.")

Symbol	Description
AND	Returns true if both conditions are true.
OR	Returns true if one of the conditions is true.
NOT	Reverses the outcome of the expression; true becomes false, false becomes true.

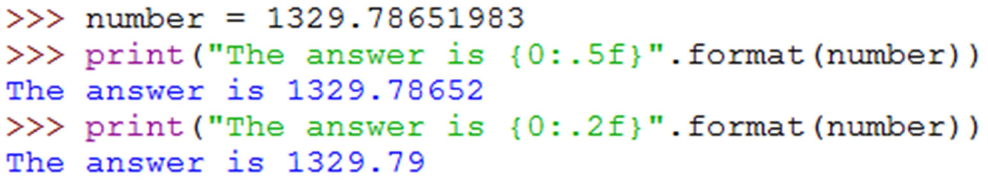
String formatting

The string formatting commands are given in curly brackets {} which act as placeholders which start at 0.

Example:



```
>>> print("The answers are {0} {1} {2}".format("xyz","abc",100))
The answers are xyz abc 100
```



```
>>> number = 1329.78651983
>>> print("The answer is {0:.5f}".format(number))
The answer is 1329.78652
>>> print("The answer is {0:.2f}".format(number))
The answer is 1329.79
```

Python errors	Description
TypeError	When an operation is attempted that is invalid for that type of data.
RuntimeError	An error that occurs when the program is running.
NameError	When a name is used that is not known about (often a misspelt variable name).
ZeroDivisionError	Dividing a number by zero.
KeyBoardInterrupt	When a program is interrupted from the keyboard by pressing control+c

Reserved Python command words		
and	exec	not
assert	finally	or
break	for	pass
class	from	print
continue	global	raise
def	if	return
del	import	try
elif	in	while
else	is	with
except	lambda	yield