

# GPN Python Syntax Cheat Sheet

<pre># Import useful modules import math import re</pre>	<pre># Variables: number = 5 stringOfWords = 'Rock for the win! Rock rock ROCK!' listOfNums = [1, 2, 3, 4, 5, 6] listOfStrings = ['Rock for the win!', 'paper sucks', 'scissors is ok', 'I can beat the computer'] dictionaryFood = {'fruit': 'apple', 'veg': 'carrot', 'treat': 'chocolate', 'drink': 'coke'} # key:value</pre>																				
<pre># Printing results: print('The user input', text, 'but really we think', stringOfWords)</pre>	<pre># Comments: # Write some comments here to explain what you're doing</pre>																				
<pre># Loops while True:     entry = input('Type end when finished: ')     if entry == 'end':         print('The end is here')         break     print('We\'re still going ..')</pre>	<pre># Getting input: text = input('Please enter some text: ')  # If-Else Statements if number == 5:     print('Number equals 5') elif number &lt; 5:     print('Number is small') else:     print('Number must be larger than 5!')</pre>																				
<pre># Pattern matching &amp; Regular Expressions (RegEx) import re  stringOfWords = 'Rock is awesome!'  if re.search('rock', stringOfWords, re.IGNORECASE):     print('rock, Rock or ROCK is in the string')  if re.search('^Paper   Rock   Scissors', text):     print('The line starts with a valid word')  substitutedString = re.sub('Rock', 'paper', stringOfWords) print('Words are: ', substitutedString) # paper is awesome</pre>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">.</td> <td style="width: 25%;">Any character</td> <td style="width: 25%;">[a-zA-Z]</td> <td style="width: 45%;">Set of upper or lowercase letters</td> </tr> <tr> <td style="text-align: center;">\d</td> <td>Digits [0-9]</td> <td style="text-align: center;">\w</td> <td>Alphanumeric [a-zA-Z0-9_]</td> </tr> <tr> <td style="text-align: center;">\s</td> <td>Whitespace (space, tab, newline)</td> <td style="text-align: center;"> </td> <td>Or</td> </tr> <tr> <td style="text-align: center;">^</td> <td>Start of line</td> <td style="text-align: center;">\$</td> <td>End of line</td> </tr> <tr> <td style="text-align: center;">+</td> <td>Matches 1 or more of previous char</td> <td style="text-align: center;">*</td> <td>Matches 0 or more of previous char</td> </tr> </table>	.	Any character	[a-zA-Z]	Set of upper or lowercase letters	\d	Digits [0-9]	\w	Alphanumeric [a-zA-Z0-9_]	\s	Whitespace (space, tab, newline)		Or	^	Start of line	\$	End of line	+	Matches 1 or more of previous char	*	Matches 0 or more of previous char
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## GPN Python Syntax Cheat Sheet Notes

<pre># Converting strings to integers string = str(number)</pre>	<pre># For statements for string in listOfStrings:     print(string)  for number in range(1,6):     if number % 2 == 1:         continue     print(number)</pre>
<pre># Converting integers to strings: number = int(text)</pre>	<pre># 1 modulo 2 = 1, 2 modulo 2 = 0, .. # skips to start of next loop # prints 2 4 6</pre>
<pre># Maths: import math  multiply = number * (price + 0.50) square = number ** 2 intDivide = 7 / 2 floatDivide = 7.0/2.0 number+=1 circleArea = math.pi*(radius**2) x = math.pow(y,z)  print('-' * 20) string = 'hi there' print(string * 3)  # Random number generation import random random. options = (first, second, third) result = random.choice(options)</pre>	<pre># 3 (only whole integers!) # 3.5 # increments number # raises y to the power of z #----- # hi there hi there hi there # choose from a set</pre>