

# Finding Multiple Instances

Up to this point, all we've seen is how to find the first match in a string. But what if you have a string that has multiple matches in it. Let's review how to find a single match:

```
import re
silly_string = "the cat in the hat"
pattern = "the"
match = re.search(pattern, silly_string)
print (match.group())
#'the'
```



Now you can see that there are two instances of the word “the”, but we only found one. There are two methods of finding both. The first one that we will look at is the **findall** function:

```
import re
silly_string = "the cat in the hat"
pattern = "the"
print (re.findall(pattern, silly_string))
#['the', 'the']
```



The **findall** function will search through the string you pass it and add each match to a list. Once it finishes searching your string, it will return a list of matches. The other way to find multiple matches is to use the **finditer** function.

```
import re

silly_string = "the cat in the hat"
pattern = "the"
```



```
pattern = "the"

for match in re.finditer(pattern, silly_string):

    s = "Found '{group}' at {begin}:{end}".format(
        group=match.group(), begin=match.start(),
        end=match.end())
    print(s)
```



As you might have guessed, the `finditer` method returns an iterator of `Match` instances instead of the strings that you would get from `findall`. So we needed to do a little formatting of the results before we could print them out. Give this code a try and see how it works.