

```
import re
```

```
# QUESTION 1
```

```
string11=" AAAA "
```

```
string12=" A "
```

```
pattern1 = " A{2,5} "
```

```
match1 = re.search(pattern1, string11)
```

```
match2 = re.search(pattern1, string12)
```

```
if match1: print("{} matched pattern {}".format(string11,pattern1))
```

```
if match2: print("{} matched pattern {}".format(string12,pattern1))
```

```
# QUESTION 2
```

```
string21="Herecomesthe12.35kl;j;negative-12.35dj;lad"
```

```
pattern2 = r"-?[0-9]*\.[0-9]+"
```

```
# matches [.99 01.999 -1.1 etc] not integers/chars
```

```
sub = re.sub(pattern2,"float", string21)
```

```
print(sub)
```

```
# QUESTION 3
```

```
string21="Herecomesthe12.35kl;j;negative-12.35dj;lad"
```

```
pattern2 = r"-?[0-9]*\.[0-9]+"
```

```
sub = re.subn(pattern2, "float", string21)
```

```
print(sub[1])
```

```
# QUESTION 4
```

```
string4="12jkl;d;jafl;d-12jda;lsfja5dk;alsf6dafj;14"
```

```
pattern4 = r"-?[0-9]+"
```

```
integers=re.findall(pattern4, string4)
```

```
print(sum([int(x) for x in integers]))
```

```
# QUESTION 5
```

```
string5="EE364EE364EE364"
```

```
pattern5 = r"EE364"
```

```
newstring5 = re.sub(pattern5, "EE461", string5, 1)
```

```
print(newstring5)
```

```
# QUESTION 6
```

```
IPV4 = r"^(?P<IP>(((0*[0-1]?[\d]{0,2})|(0*[2][0-5]{0,2}))\.){3}(((2)[0-5]{0,2})|([0-1]?[\d]{0,2})))$"
```

```
match=re.search(IPV4, "123.123.123.123")
```

```
if match:
```

```
    print(match.group("IP"), "--VALID IP")
```

```
# QUESTION 7
```

```
# a) Search string input for the letter 'e', ignore case
```

```
# b) Match the strvar "input" to any set of characters followed
```

```
# by "is a" followed by any character till a new line
```

```
# Place "is a" and the characters on either side into groups
```

```
# c) Same as part B, but name the first group as "First",
```

the "is a" as "Second" and the last group as "Third"

They can be called as match.group("First") etc..

d) Search for substrings in input matching "I" followed by

"like" ten or more times, followed by "you" one for

two times. Group the "I", the "likes", and "you"

separately