

string review

string function

```
len(s)
s.lower()
s.upper()
s.strip()

s = "hello world"
for c in s:
    print(c)

k = s.find(w)

# convert hexadecimal to decimal

hex = "0123456789ABCDEF"
x = 0
a = input().strip()
k = len(a)
w = 16**(k-1)
for c in a:
    k = hex.find(c)
    x += w*k
    w = w / 16
print(x)
```

file

```
infile = open("data.txt","r")
for line in infile:
    print(line)
infile.close()

outfile = open("data.txt","w")
for i in range(10):
    outfile.write(str(i))
outfile.close()
```

list comprehension

```
c = [10,12,13,15,10]
c.insert(2,12)
print(c)
for i in c:
    print(i)

out = []
for i in range(len(c)-1):
    # print(c[i])
    # print(c[i],c[i+1])
```

```
out.append(float(c[i]+c[i+1])/2.0)
print(out)
```

```
out = []
for i in range(len(c)):
    # print(c[i])
    out.insert(0,c[i])
print(out)
```

```
out = []
for k in c:
    # print(k)
    out.insert(0,k)
print(out)
```

```
a = [1,2,3,4]
b = [5,6,7,8]
out = [ [i,j] \
        for i in a \
        for j in b
        ]
```

```
print(out)
```

```
make a list, [1,3,5,... 29]
```

```
make a list, b = a.reverse(),
b = [29.....,5,3,1]
```

```
a = [1,2,3,4]
b = [5,6,7,8]
```

```
make a list, c = [1,2,3,4,5,6,7,8]
```

```
make a list, c =
[[1,2,3,4],[5,6,7,8]]
```

```
make a list, c =
[[1,5],[2,6],[3,7],[4,8]]
```

```
make a list, c = [6,8,10,12]
```

```
a = 3
```

```
make a list, b = [1,1,1]
```

```
c = 4
```

```
make a list, d = [1,1,1,1]
```

```
make a+c, is a list, e = [1,1,1,
1,1,1,1]
```

```
make c-a, is a list, f = [1]
```

```
a = [[1,2],[3,4]]
```

```
make c list from a, c = [1,2,3,4]
```