

Deep Count

```
1 def deepcount(seq):
2     if seq == []:
3         return 0
4     elif type(seq) != list:
5         return 1
6     else:
7         return deepcount(seq[0]) + deepcount(seq[1:])
```

Deep Map

```
1 def deepMap(func, seq):
2     if seq == []:
3         return seq
4     elif type(seq) != list:
5         return func(seq)
6     else:
7         return [deepSquare(func, seq[0])] + deepSquare(func, seq[1:])
```

Change list to tuple deeply

```
1 def deep_tuple(s):
2     if not isinstance(s, list): return s
3     return tuple(deep_tuple(i) for i in s)
```

Flatten

```
1 def flatten(seq):
2     if seq == []:
3         return seq
4     elif type(seq) != list:
5         return [seq]
6     else:
7         return flatten(seq[0]) + flatten(seq[1:])
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