

reverse 2 points

```
def reverse(s):  
    return s[-1] if len(s) == 1 else s[-1]+reverse(s[:-1])
```

strip 3 points

```
def _elide(ch, chars):  
    return '' if ch in chars else ch
```

```
def strip(s, chars):  
    return _elide(s[0], chars) \  
        if len(s) == 1 else _elide(s[0], chars)+strip(s[1:],chars)
```

split 4points

```
def _embed(res, token):  
    return res if len(token) == 0 else res+[token]
```

```
def _split(s, seps, res, token):  
    return _embed(res, token) if len(s) == 0 else (\  
        _split(s[1:], seps, _embed(res, token), '') \  
        if s[0] in seps else _split(s[1:], seps, res, token+s[0]))
```

```
def split(s, seps):  
    return _split(s, seps, [], '')
```

find 5 points

```
def _find(s, ch, cnt):  
    return -1 if len(s)==0 else (\  
        cnt if (s[0] == ch) else _find(s[1:], ch, cnt+1))
```

```
def find(s, ch):  
    if (find.state[2] != ch or find.state[1] != s or find.state[0] == -1):  
        find.state = [0, s, ch]
```

```
find.state[0] = _find(s[find.state[0]:], ch, find.state[0]+1)  
return -1 if find.state[0] == -1 else find.state[0]-1
```

```
find.state = [0, "", '']
```