

PS 3: Problem 1

```
def mystery1(vals):  
    """ takes a list of words and does something with them """  
    scored_vals = [[-1*x, x] for x in vals]  
    best_pair = max(scored_vals)  
    return best_pair[1]  
  
print(mystery1([-3, 1, -8, 10]))
```

1-1

x	scored_vals
-3	[3, -3]
1	[3, -3], [-1, 1]
-8	[3, -3], [-1, 1], [8, -8]
10	[3, -3], [-1, 1], [8, -8], [-10, 10]

1-2 value assigned to bestpair

[8, -8]

1-3 value returned by mystery1

-8

1-4

```
mystery2('sizes')  
    s = 'sizes'  
    result_rest = mystery2('izes') = 'xeezzii'  
    return 'sxeezzii'  
  
mystery2('izes')  
    s = 'izes'  
    result_rest = mystery2('zes') = 'xeezz'  
    return 'xeezzii'  
  
mystery2('zes')  
    s = 'zes'  
    result_rest = mystery2('es') = 'xee'  
    return 'xeezz'  
  
mystery2('es')  
    s = 'es'  
    result_rest = mystery2('s') = 'x'  
    return 'xee'  
  
mystery2('s')  
    s = 's'  
    Base case  
    return 'x'
```

1-5

sxezzii