You will find a private GitHub repo called <github-username>-hw where you will submit all your homework assignments. Clone this repo and create a hw5 directory inside. Add this directory to the repo using $ git add hw5. All your code should appear in a file called hw5.py that lives inside the hw5 directory. Make sure to add hw5.py to the repo and commit your changes with $ git commit -a -m "good log message".

**Question 1 (5 points)**. Write a function called `rev` that recursively reverses a list.

```python
>>> rev([])
[]
>>> rev(list(range(10)))
[9, 8, 7, 6, 5, 4, 3, 2, 1, 0]
```

**Question 2 (5 points)**. Write a function called `pal` that accepts a string and returns `True` if and only if the string is a palindrome. Your function should use recursion. Hint: think about comparing the first and last characters and recursing inwards

```python
>>> pal("racecar")
True
>>> pal("amanaplanacanalpanama")
True
>>> pal("foobar")
False
```

**Question 3 (5 points (Downey))**. Write a recursive function called `flatten` that returns a simple list containing all the values in a nested list:

```python
>>> flatten([2,9,[2,1,13,2],8,[2,6]])
[2,9,2,1,13,2,8,2,6]
>>> flatten([[9,[7,1,13,2],8],[7,6]])
[9,7,1,13,2,8,7,6]
>>> flatten([[9,[7,1,13,2],8],[2,6]])
[9,7,1,13,2,8,2,6]
>>> flatten(["this","a","thing","a","is","a","easy"])
["this","a","thing","a","is","a","easy"]
```