Recursion Problems

Discussion 6

Note

Most of these problems will require you to first import the "List Utilities" and "Words, sentences" libraries.

Say My Name, Say My Name

Write a block that says all numbers between an input number and 0

Say the number from 20 to zero

Say My Name, Say My Name

```
+ Say + the + number + from + num + to + zero +
   num | < 1
say 0 for 1 secs
say num for 1 secs
Say the number from
                                   to zero
```

I Got 99 letters but a "B" ain't one

Given a word as input, find the number of characters in the word



HINT: all but first letter of abe

I Got 99 letters but a "B" ain't one

O.N.I.F.C.F.I.N.O.

A palindrome is a word that is spelled the same way forwards and backwards (example: racecar). Given a word as input, report whether or not the word is a palindrome.



HINTS:





O.N.I.F.C.F.I.N.O.

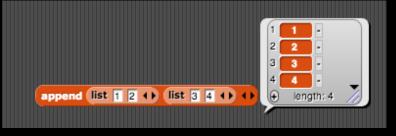
```
+ is + word + a + palindrome? +
    length of word = 1 or length of <math>word = 0
report true
   letter 1 of word = letter length of word of word
 report
  is all but first letter of all but last letter of word
                                                     a palindrome?
else
report < false
```

Smack My List Up

Given a list as input, report the reverse of the list



HINTS:





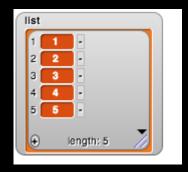
Smack My List Up

```
+ reverse + of + the + list + ( list )+
    length of list
report list
else
report
  append
                                               list Item 1 → of list → ↔
  reverse of the list all but first of list
```

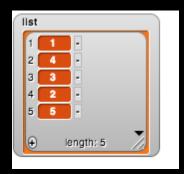
Smack (Part of) My List Up

Given a list, a minimum number and maximum number as input, reverse the order of the list, but only for items within the range of minimum to maximum.





Original List



List After Block Call

Smack (Part of) My List Up

```
+ reverse + order + of + (list) + from + (min) + to + (max) +
script variables temp1 temp2 temp2
   min > (max
stop this block ▼
 set temp1 to item (min) of list
 set temp2 to item (max) of list
 replace item (max) of (list) with (temp1
 replace item (min) of (list) with (temp2)
 reverse order of (list) from (min) + (1) to (max) -
```

Report Length or Die Trying

Write the



block without using the built-in

Snap! block.

Report Length or Die Trying

```
+ length + of + list + list : +
   empty?
report 0
else
         1 + length of list all but first of list
report
```