range.py

```
== Restart
Item 0 is: 22
Item 1 is: 37
Item 2 is: 3
Item 3 is: 4
>>> list(range(0, 7))
[0, 1, 2, 3, 4, 5, 6]
>>> list(range(5, 9))
[5, 6, 7, 8]
>>> list(range(0, len(lst)))
[0, 1, 2, 3]
```

range(start, stop)

Takes a start value and produces a range from start (inclusive) to stop (exclusive).

```
lst = [22, 37, 3, 4]

for index in range(0, len(lst)):
  print("Item " + str(index) + " is: " + str(lst[i]))

# Write a function factorial that takes a number n
# and returns n * (n – 1) * (n - 2) * ... * 1




# Write a function numbered that takes a list
# of strings strs and produces a string with a
# numbered list
# "1. <string1>, 2. <string2>, 3. <string3>, ..."
```

odds.py

```
>>> 5 % 2
1
>>> 8 % 3
2
>>> 9 % 5
4
```

New operator: %
“modulo” or “remainder”
Gives the remainder of division
(for positive numbers)

```
# write is_odd that takes an int and returns True
# if it's even, false otherwise.




# Write a function sum_odds that takes a list of numbers
# and produces the sum of the odd numbers
```

find.py

```
>>>
```

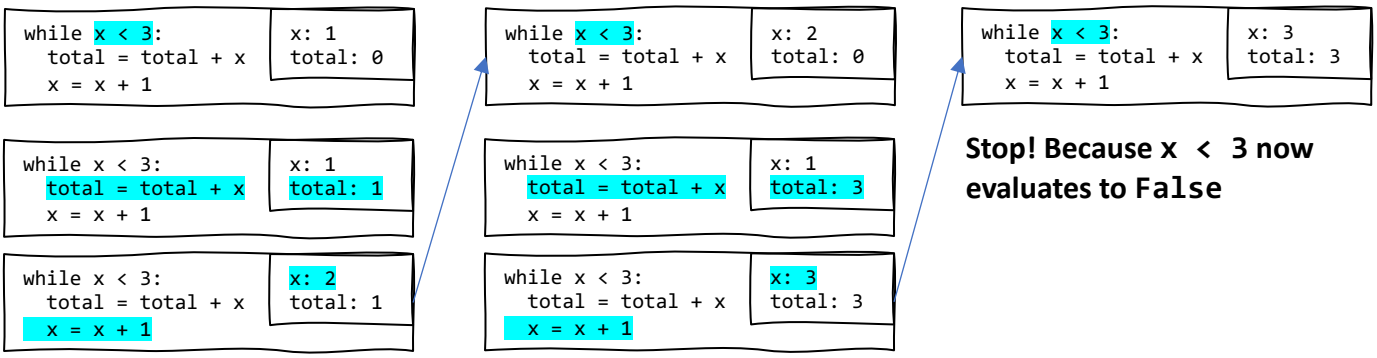
```
# Write a function find that takes a list of
# strings and a string tofind and returns the first
# index where that string is found in the list, and
# -1 if it isn't in the list
```

while.py

```
>>> total
45
```

```
x = 1
total = 0
while x < 3:
  total = total + x
  x = x + 1

# Write find from above, but use while instead of for
```



while_input.py

```
>>> echo_shouts()
Type a word: hi
HI!
Type a word: hello
HELLO!
Type a word: end
END!
```

```
def shout(s): return s.upper() + "!"

def echo_shouts():
  word = ""
  while word != "end":
    word = input("Type a word: ")
    print(shout(word))

# Write a function sum_inputs, that reads numeric
# input until the user types -1, and then returns the
# sum of all the numbers entered
```