- Make a text file with some integers in it, one per line.
- Write a program to read all the numbers and store them in a list.
- **After all the numbers are read in**:
  - write a loop to print out the sum of all the numbers in the list.
  - write a loop to print out sums of adjacent pairs of numbers in the list (don't use sliding window; use indices)
    - Hint: You don’t need the sliding window technique; instead, use math with list indices.
  - write a loop to find the largest and smallest numbers in the list.

Lists II

Loops over lists

- Just like loops over strings!

```
for pos in range(0, len(str_var)):
   do something

for pos in range(0, len(list_var)):
   do something
```

What does this do?

```
lst = ...a list of ints...

for pos in range(0, len(lst)):
  if lst[pos] > 10:
    print(lst[pos])
```

What does this do?

```
lst = ...a list of strings...

for pos in range(0, len(lst)):
  if lst[pos].startswith("a"):
    print(lst[pos])
```

What does this do?

```
lst = ...a list of strings...

for pos in range(0, len(lst)):
  if lst[pos][-1].islower():
    print(lst[pos])
```

What does this do?

```
lst = ...a list of ints...

for pos in range(0, len(lst)):
  if lst[pos] == pos:
    print(lst[pos])
```

What does this do?

```
lst = ...a list of ints...

for pos in range(0, len(lst)):
  lst[pos] *= 2
```

`find()` doesn't exist for lists

- **`list_var.index(item)`**
- Searches left to right, returns position where found, but crashes if not found.
- Let's build an algorithm that replicates **`find()`**, but works for lists (returns -1 if not found).

Class work

- Write a function that takes a list of numbers and prints out sums of adjacent pairs of numbers in the list (don't use sliding window; use indices).
- Write a function that takes a list of strings and prints out all the strings that start and end with the same letter.
- Write a function that takes a list of strings and ***RETURNS*** a list of all the strings that have more a's than b's.
- Write a function that takes a list and shifts all the elements in the list one spot to the left, without using slices! (the left-most element disappears)
  - So [1, 2, 3, 4, 5] turns into [2, 3, 4, 5, 5]

– Can you make a function that shifts to the right?