

# Discussion 5: Mutability

What are the values of the script variables x and y after the given script finishes running?

a.

```

script variables x y
set x to 123
set y to list 1 2 3
set x to six
set y to six
    
```

```

+set+ input +to+ six+
set input to 6
    
```

x: \_\_\_\_\_

y: \_\_\_\_\_

b.

```

script variables x y
set x to 123
set y to list 1 2 3
add six to x
add six to y
    
```

```

+add+ six+ to+ input +
if is input a list?
add 6 to input
else
change input by 6
    
```

x: \_\_\_\_\_

y: \_\_\_\_\_


## Challenge: Errors Galore

The following questions are based off this block:

```

+square+ numbers+ in+ list +
script variables new
set new to list
for i = 1 to length of new
replace item i of new with
item i of new x item i of new
    
```

Inside: Error reporter didn't report

a. When running this block, we get the following error: . What caused this error, and how can we fix it?

---



---

b. Now, that we've fixed it, we try to test our code, but we get another error:



A Scratch test block with the following structure: `test` block containing `square numbers in` block with an empty input field, `w/inputs` block with `list` block containing `1` and `2`, and `expecting output` block with `list` block containing `1` and `4`. A speech bubble on the right contains the error message: "Inside: TypeError list.length is not a function".

How can we fix this?

---

c. Now, we try running the following test, but it doesn't work as expected:



A Scratch test block with the following structure: `set` block with `my list` dropdown and `to` block with `list` block containing `1` and `2`. Below it is a `report` block containing a `test` block with `square numbers in` block with an empty input field, `w/inputs` block with `list` block containing `my list`, and `expecting output` block with `list` block containing `my list` and `list` block containing `1` and `4`. A speech bubble on the right contains a report table:

|   |                                     |       |
|---|-------------------------------------|-------|
| 1 | <input checked="" type="checkbox"/> | true  |
| 2 | <input type="checkbox"/>            | false |

Why does it report this, and how can we fix it?

---

---

---