What are the valid indices of `lst`?

- 1, 2, and 3
- -3, -2, -1, 0, 1, and 2
- -2, -1, 0, 1, and 2
- 0, 1, and 2

Correct

Answer:
-3, -2, -1, 0, 1, and 2

What happens if I call `lst[-1]`?

- Evaluates to 'nina'
- Error
- Evaluates to 'santa maria'
- Evaluates to 'pinta'

Correct

Answer:
Evaluates to 'santa maria'

What happens if I call `lst[-len(lst)]`?

- Evaluates to 'santa maria'
- Evaluates to 'pinta'
- Error
- Evaluates to 'nina'
What does the following code print?

```python
for i in range(len(lst)):
    print i, lst[i]
```

It is sometimes useful to iterate over the indices in a list rather than the list itself, because at any iteration of the loop, you have not only a value in the list, but also the index of a value in the list.

0 nina
1 pinta
2 santa maria

What is the output of the following Python program?

```python
list1 = [1, 2, 3]
list2 = list1
list2.append(4)

print list1
print list2
```

Correct output:

```
[1, 2, 3, 4]
[1, 2, 3, 4]
```

list1 and list2 both refer to the same list; thus changes
Answer:

Feedback:
Correct output:

```
[1, 2, 3, 4]
[1, 2, 3, 4]
```

list1 and list2 both refer to the same list, thus changes ("mutations") to list2 affect the value of list1. This is known as aliasing.

---

0/2

Consider the following change to the code from question above:

```python
list1 = [1, 2, 3]

list2 = list1[:]
list2.append(4)

print list1
print list2
```

What is output of this program?

Correct output:
```
[1, 2, 3]
[1, 2, 3, 4]
```

The change assigns list2 to a copy of list1. As a result, mutations to list2 do not affect the value of list1.

Needs manual grading

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1/1

Which of the following expressions will return the width of (number of columns in) the grid? (check all that apply)

- `len(grid[0])`

---

https://catalyst.uw.edu/webq/survey/rea2000/291217
\[ \text{Correct} \]
\[ \text{Answer: len(grid[0]), len(grid[1])} \]

1/1

Which of the following expressions will return the **height of (number of rows in)** the grid? (check all that apply)

- [ ] len(grid[0][0])
- [x] len(grid)
- [ ] len(grid[1])
- [ ] len(grid[0])

\[ \text{Correct} \]
\[ \text{Answer: len(grid)} \]

1/1

After applying the blurring algorithm to this grid, what value would be stored in the first location in the first row of the **new blurred grid** (the location where the 1 is in the original grid)?

- [ ] 2
- [ ] 3
- [ ] 6
- [x] 1

\[ \text{Correct} \]
\[ \text{Answer: 1} \]

\[ \text{Feedback:} \]
Remember that we use truncating integer division and that locations outside of the grid are considered to be equal to zero when averaging.