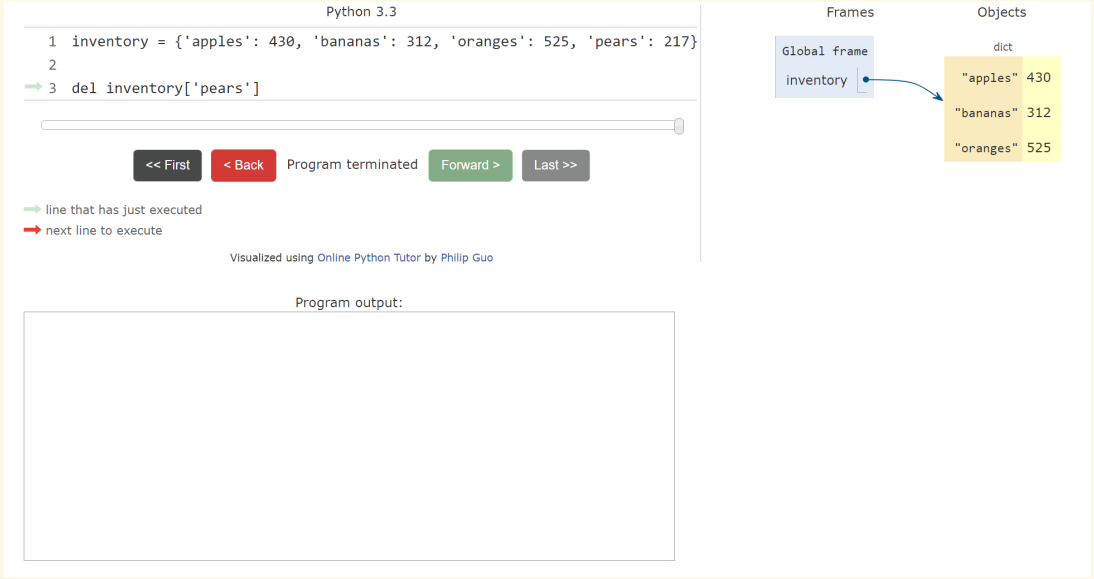
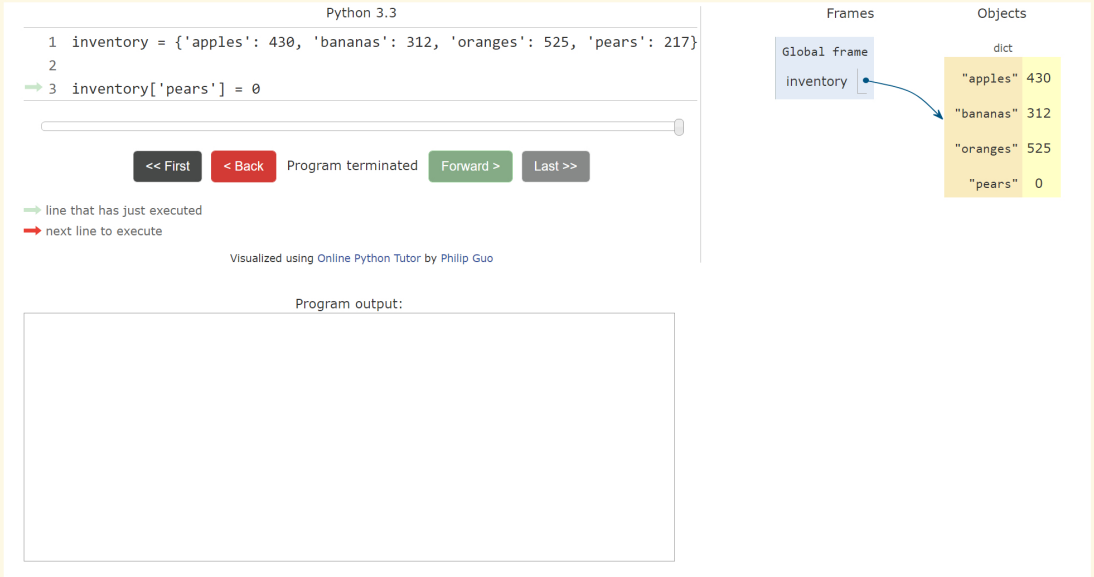
11.3. Dictionary operations

The `del` statement removes a key-value pair from a dictionary. For example, the following dictionary contains the names of various fruits and the number of each fruit in stock. If someone buys all of the pears, we can remove the entry from the dictionary.



Activity: 1 -- CodeLens: (clens10_2_1)

Dictionaries are mutable, as the delete operation above indicates. As we've seen before with lists, this means that the dictionary can be modified by referencing an association on the left hand side of the assignment statement. In the previous example, instead of deleting the entry for `pears`, we could have set the inventory to `0`.

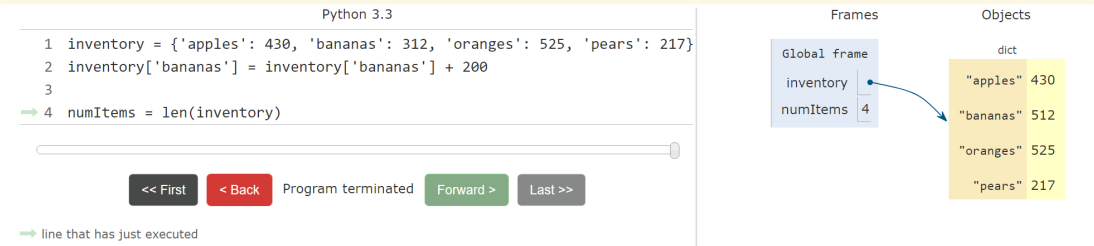


Activity: 2 -- CodeLens: (clens10_2_2)

Note

Setting the value associated with `pears` to 0 has a different effect than removing the key-value pair entirely with `del`. Try printout out the two dictionaries in the examples above.

Similarily, a new shipment of 200 bananas arriving could be handled like this. Notice that there are now 512 bananas— the dictionary has been modified. Note also that the `len` function also works on dictionaries. It returns the number of key-value pairs.



➡ next line to execute

Visualized using Online Python Tutor by Philip Guo

Program output:

Activity: 3 -- CodeLens: (clens10_2_3)

Notice that there are now 512 bananas—the dictionary has been modified. Note also that the `len` function also works on dictionaries. It returns the number of key-value pairs.

Check your understanding

dictionaries-2-1: What is printed by the following statements?

```
mydict = {"cat":12, "dog":6, "elephant":23}
mydict["mouse"] = mydict["cat"] + mydict["dog"]
print(mydict["mouse"])
```

- A. 12
- B. 0
- C. 18
- D. Error, there is no entry with mouse as the key.

Check me | Compare me

✔ Yes, add the value for cat and the value for dog (12 + 6) and create a new entry for mouse.

Activity: 4 -- Multiple Choice (question10_2_1)

2. Update the value for "Phelps" in the dictionary `swimmers` to include his medals from the Rio Olympics by adding 5 to the current value (Phelps will now have 28 total medals). Do not rewrite the dictionary.

Save & Run | 5/14/2021, 8:10:52 AM - 2 of 2 | Show in CodeLens

```
1 swimmers = {'Manuel':4, 'Lochte':12, 'Adrian':7, 'Ledecky':5, 'Dirado':4, 'Phelps':
2
3 swimmers['Phelps']=swimmers['Phelps']+5
4
```

Activity: 5 -- ActiveCode (ac10_2_1)

Result	Actual Value	Expected Value	Notes	
Pass	[('Ad... 28)]	[('Ad... 28)]	Testing that swimmers is assigned to correct values.	Expand Differences

You passed: 100.0% of the tests

11.2. Getting Started with Dictionaries">

tting Started with Dictionaries">

11.4. Dictionary methods">

You have attempted 6 of 5 activities on this page

| Back to top