

CSC 120 ICA-2 SOLUTIONS

1.

(a)

```
v: string
w: tuple
x: dictionary
y: list
```

(b)

`v[2:4]` is the string `'CD'`, so `v[2:4].lower()` is `'cd'`. On the right hand side, `w[1]` is `(12, 23, 34)` so `w[1][2]` is 34.

So the assignment sets `x['cd']` to 34. Thus, the value of `x` after this assignment is:

```
{ 'abc' : 12, 'cde' : 34, 'efg' : 56, 'cd' : 34 }    <<<<
ANSWER
```

2.

```
def num_keys(d):
    keylist = list(d.keys())
    nkeys = len(keylist)
    for k in keylist:
        nkeys += len(list(d[k].keys()))

    return nkeys
```

3.

```
def remove_first(tup):
    assert len(tup) > 0 "tup is empty"
    return tup[1:]
```