

1. What is the output of the following code

a. (2 points)

```
d = {}
d['a'] = 12
d[12] = 'a'
d['b'] = 'c'
d['d'] = 'e'
a= ['a','b','c','d']
for i in a:
    if i in d:
        print (d[i])
    else:
        print ("skip")
```

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b. (2 points)

```
d = {0:"a",1:"b",2:"c",5:"f",7:"h",9:"j"}
for b in d:
    print (d[b])
```

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c. (3 points)

```
alpha = "abcdefghijk"
delta = {}
for a in range(len(alpha)):
    delta[a] = alpha[a]
print (len(delta))
if 5 in delta:
    print (delta[5])
if 'g' in delta:
    print (delta['g'])
```

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2. Assume there is a file called “data.txt”. Write a program that will open the file for reading, read each character from the file and count all those characters that are also in your first name. Once you have counted all characters, print the result to the screen. (3 points)

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3. Assume that a file called “scores.txt” contains scores for students in an exam. The first line in the file shows you how many students in class. This number is followed by scores for each student on a line by itself. The scores are followed by several other numbers that are not relevant to us. Write code that opens the file for reading, and prints the average of all the grades for the exam. For Example, a file with 3 students, will hold 3 on the first line, then three lines with one score on each line and then other irrelevant numbers as shown below: (2 points)

```
3
59
21
88
12
15
6.4
18
....
```