

CS1026 Computer Science Fundamentals

Extra Questions

Answer each of the following questions.

1) For each of the following provide a short answer.

a) What is $12.0/3$?

4.0

b) What is $13//3$?

4

c) What is $13 \% 3$?

1

2) What is the difference between $=$ and $==$?

$=$ is for value assignment
 $==$ is to determine whether two values are equal.

3) What is output by the following code segment?

```
values = ["Q", "W", "E", "R", "T", "Y"]  
print(values[2:4])
```

~~Q, W, E, R, T, Y~~
E, R, T

4) Consider the following code segment. It should display a message only if the cost is between 50 and 75 dollars. The message should also be displayed if the cost is exactly 50 dollars or exactly 75 dollars.

```
if _____ :  
    print("The cost is in the desired range")
```

What condition should be placed in the blank to achieve the desired behavior?

$cost \geq 50$ and $cost \leq 75$

5) What is the output of the code snippet given below?

```
s = "abcde"  
i = 0  
while i < 5 :  
    if i > 1 :  
        print(s[i])  
    i = i + 1
```

~~a b c d e~~
c d e

6) What does the following code snippet print?

```
position = 0
str = input("Enter a string")
while position < len(str):
    if str[position] in 'aeiou':
        print(position)
        position = position + 1
```

print the positions
of each vowels in the string.

7) What will be the output of the following code snippet?

```
for i in range(0,7):
    for j in range(7, -1):
        print("*", end="")
    print("")
```

i = 0

~~Handwritten scribbles representing a 7x7 grid of asterisks.~~

8) The following function is supposed to add 1 to any odd integers in the list. The function has 3 logic errors. Identify the logic errors and correct them. Note that there may be more than one logic error on a line.

```
def addOne(values):
    for i in range(1, len(values)):
        if values[i] % 3 == 0:
            values[i] = values[i] + 1
```

← range(0, len(values))
← % 2 == 1