

Quick Review of String Methods (and a few new ones!)

11/6/18

Answer Key

1. Identify the return values of the following method calls on the String data in the code segments below:

```
name = "Mouse, Mickey";
other_name = "Mouse, Minnie";
```

0 1 2 3 4 5 6 7 8 9 10 11 12
M o u s e , M i c k e y
M o u s e , M i n n i e

- a. name.length(); 13
- b. name.substring(1,3); "ou"
- c. other_name.substring(7, 13); "Minnie"
- d. name.substring(7); "Mickey"
- e. name.indexOf("M"); 7
- f. other_name.indexOf("i"); 8
- g. other_name.indexOf(9, "i"); 11
- h. name.indexOf("K"); -1
- i. name.equals(other_name); True
- j. name.toUpperCase(); MOUSE, MICKEY
- k. other_name.toLowerCase(); mouse, minnie
- l. name.compareTo(other_name); -11

all characters are the same until the 'c' in Mickey and the 'n' in Minnie. This method compares the lexicographic order of 'c' and 'n' in an ASCII chart.

'c' → 99 'n' → 110
99 - 110 = -11

"For" Loops Review

Identify the output of the following "for" loops in Java.

2. for (int i=0; i < 10; i++)

System.out.print(i);

0 1 2 3 4 5 6 7 8 9

3. for (int i= 1 ; i <= 10; i+=1)

System.out.print(i);

1 2 3 4 5 6 7 8 9 10

4. for (int i= 1 ; i > 10; i+=1)

System.out.print(i);

↪ 1 > 10 is not true so ↪
nothing prints!

5. for (int i= 1 ; i > 0; i+=1)

System.out.print(i);

1 2 3 4 5 6 ... infinite loop.
all values are always > 0

6. for (int i=1; i <= 10; i+=2)

System.out.print(i);

1 3 5 7 9
}

7. for (int i=1; i <= 10; i*=2)

System.out.print(i);

1 2 4 8

8. for (int i=0; i <= 10; i*=2)

System.out.print(i);

0 0 0 0 ... i never changes from
0 so infinite loop.

For questions 9 and 10, use the following code segment:

```
String animal = "Puffin";  
int length = animal.length();
```

0 1 2 3 4 5
P u f f i n length = 6

9. for (int i = 0; i < length; i++);
System.out.print(i);

0 1 2 3 4 5

```
10. for (int i = 0; i < length; i++);  
{  
    String character = animal.substring(i, i+1);  
    System.out.print(i);  
}
```

P u f f i n