

Lab – Learning Loops

Create a new file to test the following snippets of code.

1. What is the output of the following?

```
for (int i = 1; i < 3; i++)  
{  
    System.out.println(i);  
}
```

2. What is the output of the following?

```
for (int x = 200; x < 230; x+=10)  
{  
    System.out.print(x + " ");  
}
```

3. What is the output of the following?

```
int x = 5;  
while (x < 7)  
{  
    System.out.println(x*10);  
    x++;  
}
```

4. What is the output of the following?

```
for(int i = 0; i < 10; i++)  
{  
    System.out.print(i + " ");  
}
```

5. What is the output of the following? Why?

```
for(int i = 0; i < 10; i++)  
{  
    System.out.println("Lollipop");  
}
```

6. Which of the following is a possible output for the following?

```
String name = "joe";
```

```
while(name.equals("joe"))
{
    System.out.print("Enter a name: ");
    name = // reads in a String
}
```

- (A) Enter a name: joe
Enter a name: joseph
Enter a name: joe
Enter a name: bob
- (B) Enter a name: joe
Enter a name: joe
Enter a name: joe joe
Enter a name: joe
- (C) Enter a name: joe
Enter a name: bob
Enter a name: joe
- (D) Enter a name: joe
Enter a name: joe
Enter a name: bob

7. What is the output of the following?

```
int i = 3;
do
{
    System.out.print("Loops are cool.");
    --i;
}while(i > 0);
```

8. Which of the following will print the letter 'A' to the screen 5 times?

- (A) for(int i = 0; i <= 5; i++)
{
 System.out.print("A");
}
- (B) for(int i = 0; i > 5; i++)
{
 System.out.print("A");
}
- (C) for(int i = 5; i < 0; i++)
{
 System.out.print("A");
}
- (D) for(int i = 0; i < 5; i++)
{
 System.out.println("A");
}

9. What does the following do?

```
while(true)
{
```

```
    System.out.print("I will not talk while the teacher is talking.");  
}
```

10. Which of the following ensures that x is a number between 50 and 60 (exclusive)?

- (A)

```
while(x >= 50 || x <= 60)
{
    System.out.print("Enter a number (51-59) > ");
    x = // read int
}
```
- (B)

```
while(x > 50 || x < 60)
{
    System.out.print("Enter a number (51-59) > ");
    x = // read int
}
```
- (C)

```
while(x <= 50 && x >= 60)
{
    System.out.print("Enter a number (51-59) > ");
    x = // read int
}
```
- (D)

```
while(x >= 50 || x <= 60)
{
    System.out.print("Enter a number (51-59) > ");
    x = // read int
}
```

11. Use a loop to print out the numbers between 200 and 300.