

Vincent Nguyen
Tuesday Thurs
Jang

Algorithmic Workbench #3, #4, #5, #15, #16

3.) Write a for loop that displays the following

set of numbers:

0, 10, 20, 30, 40, 50 ... 1,000

```
for(count = 0; count <= 1,000; count += 10)  
{  
    System.out.println(count);  
}
```

4.) Write a loop that asks the user to enter a number. The loop should iterate 10 times and keep running a total numbers entered.

```
Scanner keyboard = new Scanner(System.in)  
number = keyboard.nextInt();  
for (number, number <= 10, number++)  
{  
    System.out.println(number);  
}
```

5.) Write a for loop that calculates the total of the following series of numbers:

$$\frac{1}{30} + \frac{2}{29} + \frac{3}{28} + \dots + \frac{30}{1}$$

```
for(count = 0, count <= 30, count++)  
{  
    int bottom = 30, top = 1, total = 0;
```

```
    total = top/bottom;  
    top++  
    bottom--
```

15.) Complete the following program so it displays a random integer in the range of 1 through 10.

// Write the necessary import statements here

import java.util.Random;

public class ReviewQuestion15

{
 public static void main(String[] args)

 // write the necessary code here

 }

 int number;

 Random randomNumbers = new Random();
 number = randomNumbers.nextInt(10);

 System.out.print("number from 1-10 is: ")
 System.out.println(number);

}

}

16.) Complete the following program so it performs the following actions 10 times:

- Generates a random number that is either 0 or 1.
- Displays either the word "Yes" or the word "no" depending on the random number that was generated

```
import java.util.Random,  
for (count = 0, count <= 10, count++)  
{  
    Random num = new Random();  
    int ranNum;  
    ranNum = num.nextInt();  
    If (ranNum == 0)  
    {  
        System.out.print("no")  
    } else {  
        System.out.print("yes")  
    }  
}
```