1. (25pts) Consider the following pieces of code. Which of the following pieces result in a loop which terminates? That is, which of the following are NOT infinite loops?

I. int x=20;
    while(x!=5){
        System.out.println("The value of x is: " + x);
        x /= 4;
    }

II. int x=20;
    while(x!=5){
        System.out.println("The value of x is: " + x);
        x--;
    }

III. int x=20;
    while(x!=5){
        System.out.println("The value of x is: " + x);
        x -= 2;
    }

IV. int x=20;
    while(x!=5){
        System.out.println("The value of x is: " + x);
        x++; 
    }

V. int x=20;
    while(x!=5){
        System.out.println("The value of x is: " + x);
        x = x-5;
    }

Correct answer: I, II, and V
2. Consider the following code:

```java
import java.util.Scanner;
public class Test {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        int n, m;
        n = input.nextInt();
        m = n;

        while (n != 0) {
            n = input.nextInt();
            if (n > m){
                m = n;
            }
        }

        System.out.println("m = " + m);
        System.out.println("n = " + n);
    }
}
```

Suppose the user types the numbers:

```
2 3 4 5 0 6
```

in sequence, hitting [Enter] between each number.

A. (20 pts) What is the output of the above code?

```
m = 5
n = 0
```

B. (5 pts) Write a one sentence comment to describe the function of this code.

//Finds the maximum number of all numbers user enters until user types a 0.