System Engineering Principles II: Assignment 2
Term Test 2 Corrections

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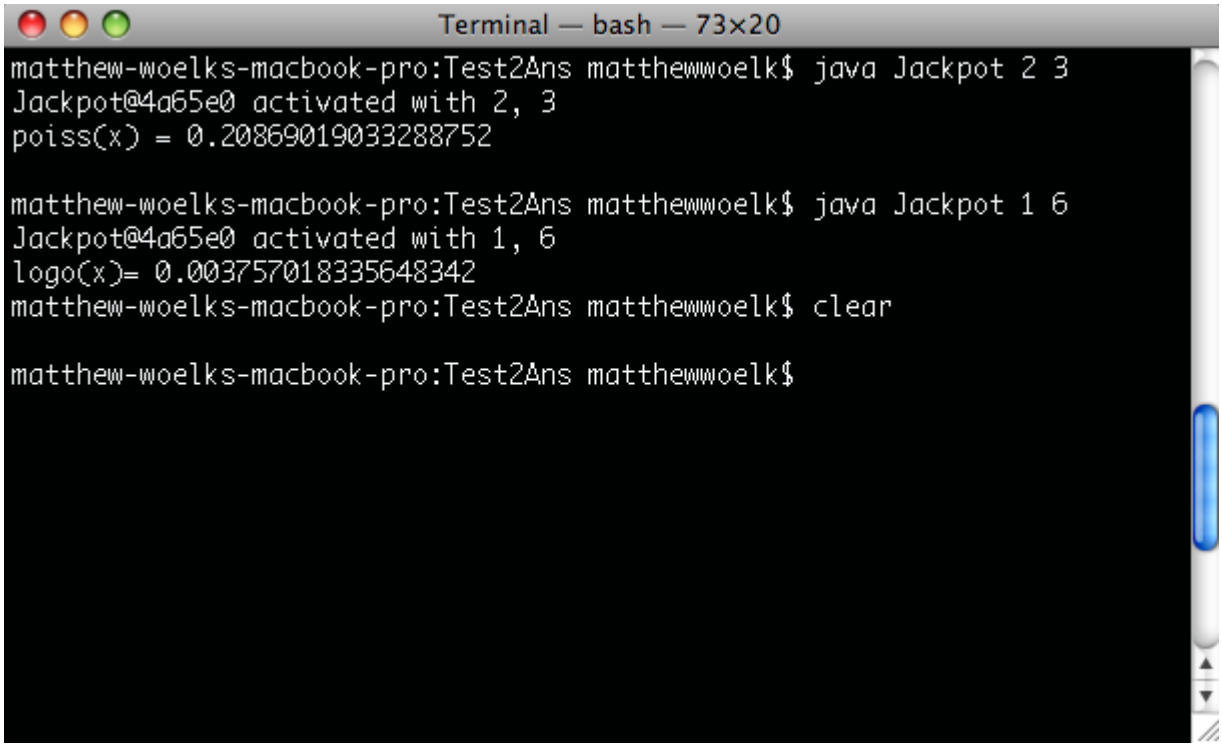
Listing 1: Corrected code: question 1.

```
1 x = [1 2 3 4 5 6 7 8 9 10];
2 C = 1/(sum(exp(-x)))
```

Listing 2: Corrected code: Java questions.

```
interface Factors{
  final double C1 = 1/Math.log(2);
  final double C2 = 1/(Math.exp(2) - 1);
}

interface pmf extends Factors{
  public double logo(double x);
  public double poiss(double x);
}

public class Jackpot implements pmf{
  public Jackpot(int a, double x){
    System.out.println(this + " activated with " + a + ", " + (
       int)x);
    if(a==1){
      System.out.println("logo(x)= " + logo(x));
    }else{
      System.out.println("poiss(x) = " + poiss(x) + "\n");
    }
  }

  public static void main(String args[]){
    Jackpot jack = new Jackpot(Integer.parseInt(args[0]),Double.
       parseDouble(args[1]));
  }

  public int fact(int x){
    int result = 1;
    for(int i = x; i > 0; i--){
      result *= i;
    }
    return result;
  }

  public double logo(double x){
    return C1*Math.pow(2,-x)/x;
  }

  public double poiss(double x){
    return C2*Math.pow(2,x)/fact((int)x);
  }
}
```


Terminal — bash — 73×20
matthew-woelks-macbook-pro:Test2Ans matthewwoelk$ java Jackpot 2 3
Jackpot@4a65e0 activated with 2, 3
poiss(x) = 0.20869019033288752
matthew-woelks-macbook-pro:Test2Ans matthewwoelk$ java Jackpot 1 6
Jackpot@4a65e0 activated with 1, 6
logo(x)= 0.003757018335648342
matthew-woelks-macbook-pro:Test2Ans matthewwoelk$ clear
matthew-woelks-macbook-pro:Test2Ans matthewwoelk$