Library Fine

by vatsalchanana

Your local library needs your help! Given the expected and actual return dates for a library book, create a program that calculates the fine (if any). The fee structure is as follows:

1. If the book is returned on or before the expected return date, no fine will be charged (i.e.: $\boldsymbol{fine = 0}$).
2. If the book is returned after the expected return *day* but still within the same calendar month and year as the expected return date, $\boldsymbol{fine = 15\ \text{Hackos} \times (\text{the number of days late})}$.
3. If the book is returned after the expected return *month* but still within the same calendar year as the expected return date, the $\boldsymbol{fine = 500\ \text{Hackos} \times (\text{the number of months late})}$.
4. If the book is returned after the calendar *year* in which it was expected, there is a fixed fine of $\boldsymbol{10000\ \text{Hackos}}$.

Input Format

The first line contains $\boldsymbol{3}$ space-separated integers denoting the respective $\boldsymbol{day}$, $\boldsymbol{month}$, and $\boldsymbol{year}$ on which the book was *actually* returned.
The second line contains $\boldsymbol{3}$ space-separated integers denoting the respective $\boldsymbol{day}$, $\boldsymbol{month}$, and $\boldsymbol{year}$ on which the book was *expected* to be returned (due date).

Constraints

- $\boldsymbol{1 \leq D \leq 31}$
- $\boldsymbol{1 \leq M \leq 12}$
- $\boldsymbol{1 \leq Y \leq 3000}$
- **It is guaranteed that the dates will be valid Gregorian calendar dates.**

Output Format

Print a single integer denoting the library fine for the book received as input.

Sample Input

```
9 6 2015
6 6 2015
```

Sample Output

```
45
```

Explanation

Given the following return dates:
Actual: $\boldsymbol{D_a = 9, M_a = 6, Y_a = 2015}$
Expected: $\boldsymbol{D_e = 6, M_e = 6, Y_e = 2015}$

Because $Y_e \equiv Y_a$, we know it is less than a year late.
Because $M_e \equiv M_a$, we know it's less than a month late.
Because $D_e < D_a$, we know that it was returned late (but still within the same month and year).

Per the library's fee structure, we know that our fine will be $\mathbf{15\ Hackos} \times \mathbf{(\#\ days\ late)}$. We then print the result of $15 \times (D_a - D_e) = 15 \times (9 - 6) = 45$ as our output.

Current Buffer (saved locally, editable) Java 7

```
import java.io.*;
import java.util.*;
import java.text.*;
import java.math.*;
import java.util.regex.*;

public class Solution {

    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        int d1 = in.nextInt();
        int m1 = in.nextInt();
        int y1 = in.nextInt();
        int d2 = in.nextInt();
        int m2 = in.nextInt();
        int y2 = in.nextInt();
    }
}

```

Line: 1 Col: 1