**Day 26 - Nested Logic**

<https://www.hackerrank.com/challenges/30-nested-logic/problem>

**Objective**  
Today's challenge puts your understanding of nested conditional statements to the test. You already have the knowledge to complete this challenge, but check out the [Tutorial](https://www.hackerrank.com/challenges/30-nested-logic/tutorial) tab for a video on testing.

**Task**  
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.: 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, fine = 15 Hackos \* (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 fine = 500 Hackos \* (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 10000 Hackos.

**Example**  
d1, m1, y1 = 12312014 returned date  
d2, m2, y2 = 112015 due date

The book is returned on time, so no fine is applied.

d1, m1, y1 = 112015 returned date  
d2, m2, y2 = 12312014 due date

The book is returned in the following year, so the fine is a fixed 10000.

**Input Format**

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

**Constraints**

* 1 <= D <= 31
* 1 <= M <= 12
* 1 <= Y <= 3000
* It is guaranteed that the dates will be valid Georgian calendar dates.

**Output Format**

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

**Sample Input**

STDIN Function

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9 6 2015 day = 9, month = 6, year = 2015 (date returned)

6 6 2015 day = 6, month = 6, year = 2015 (date due)

**Sample Output**

45

**Explanation**

Given the following return dates:  
Returned: D1 = 9, M1 = 6, Y1 = 2015  
Due: D2 = 6, M2 = 6, Y2 = 2015

Because Y2 == Y1, it is less than a year late.  
Because M2 == M1, it is less than a month late.  
Because D2 < D1, 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 15 Hackos \* (# days late). We then print the result of 15 \* (D1 – D2) = 15 \* (9 - 6) = 45 as our output.