The data about bank transactions consists of a sequence of transactions: the information of each transaction has the following format:

In which:

- <from_account>: the account from which money is transferred (which is a string of length from 6 to 20)
- <to_account>: the account which receives money in the transaction (which is a string of length from 6 to 20)
- <money>: amount of money transferred in the transaction (which is an integer from 1 to 10000)
- <time_point>: the time point at which the transaction is performed, it is a string under the format HH:MM:SS (hour: minute: sec ond)
- <atm>: the code of the ATM where the transaction is taken (a string of length from 3 to 10)

Example: T00112233445 T001234002 2000 08:36:25 BIDV (at the ATM BIDV, account T00112233445 transfers 2000\$ to account T001234002 at time point 08:36:25 (08 hour, 36 minutes, 25 seconds)

Write a program that process the following queries:

?total_money_transaction_from <account>: compute the total amount of money transferred from the account <account>

Input (stdin)

The input consists of 2 blocks of information: the data block and the query block

- The data block consists of lines:
 - Each line contains the information about a transaction described above
 - The data is terminated by a line containing #
- The query block consists of lines:
 - Each line is a query described above
 - The query block is terminated by a line containing #

Output (stdout)

• Print to stdout (in each line) the result of each query described above

Example

Input	Output
T000010010 T000010020 1000 10:20:30 ATM1 T000010010 T000010030 2000 10:02:30 ATM2 T000010010 T000010040 1500 09:23:30 ATM1 T000010020 T000010030 3000 08:20:31 ATM1 T000010030 T000010010 4000 12:40:00 ATM2 T000010040 T000010010 2000 10:30:00 ATM1 T000010020 T000010040 3000 08:20:31 ATM1 T000010040 T000010030 2000 11:30:00 ATM1 T000010040 T000010030 1000 18:30:00 ATM1 # ?total_money_transaction_from T000010010 ?total_money_transaction_from T000010030 #	4500 4000

```
import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.util.*;
public class Main {
    public static void main(String[] args){
        try{
            BufferedReader in = new BufferedReader(new InputStreamReader(System.in));
            Map<String, Integer> map = new HashMap();
            while(true){
                String line = in.readLine();
                if(line.equals("#")) break;
                String[] s = line.split(" ");
                String from Acc = s[0];
                int money = Integer.valueOf(s[2]);
                if(map.get(fromAcc)==null) map.put(fromAcc,money);
                else map.put(fromAcc, map.get(fromAcc) + money);
```

```
// query processing
            while(true){
                String line = in.readLine();
                if(line.equals("#")) break;
                String[] s = line.split(" ");
                String fromAcc = s[1];
                int res = 0;
                if(map.get(fromAcc)==null) res = 0;
                else res = map.get(fromAcc);
                System.out.println(res);
            in.close();
        }catch (Exception e){}
```