

You are given a history of your bank account transactions for the year 2020. Each transaction was either a credit card payment or an incoming transfer.

There is a fee for holding a credit card which you have to pay every month. The cost you are charged each month is 5. However, you are not charged for a given month if you made at least three credit card payments for a total cost of at least 100 within that month. Note that this fee is not included in the supplied history of transactions.

At the beginning of the year, the balance of your account was 0. Your task is to compute the balance at the end of the year.

You are given a table `transactions` with the following structure:

```
create table transactions (  
    amount integer not null,  
    date date not null  
);
```

Each row of the table contains information about a single transaction: the amount of money (`amount`) and the date when the transaction happened (`date`). If the `amount` value is negative, it is a credit card payment. Otherwise, it is an incoming transfer. There are no transactions with an amount of 0.

Write an SQL query that returns a table containing one column, `balance`. The table should contain one row with the total balance of your account at the end of the year, including the fee for holding a credit card.

Examples:

1. Given table:

| amount | date |
|--------|------------|
| 1000 | 2020-01-06 |
| -10 | 2020-01-14 |
| -75 | 2020-01-20 |
| -5 | 2020-01-25 |
| -4 | 2020-01-29 |
| 2000 | 2020-03-10 |
| -75 | 2020-03-12 |
| -20 | 2020-03-15 |
| 40 | 2020-03-15 |
| -50 | 2020-03-17 |

your query should return:

```
+-----+  
| balance |  
+-----+  
|    2746 |  
+-----+
```

The balance without the credit card fee would be 2801. You are charged a fee for every month except March, which in total equates to $11 * 5 = 55$.

In March, you had three transactions for a total cost of $75 + 20 + 50 = 145$, thus you are not charged the fee. In January, you had four card payments for a total cost of $10 + 75 + 5 + 4 = 94$, which is less than 100; thus you are charged. In October, you had one card payment for a total cost of 200 but you need to have at least three payments in a month; thus you are charged. In all other months (February, April, ...) you had no card payments, thus you are charged.

The final balance is $2801 - 55 = 2746$.