# The Blunder

HackerRank

Samantha was tasked with calculating the average monthly salaries for all employees in the **EMPLOYEES** table, but did not realize her keyboard's $0$ key was broken until after completing the calculation. She wants your help finding the difference between her miscalculation (using salaries with any zeros removed), and the actual average salary.

Write a query calculating the amount of error (i.e.: $actual - miscalculated$ average monthly salaries), and round it up to the next integer.

**Input Format**

The **EMPLOYEES** table is described as follows:

| Column | Type |
|---|---|
| ID | Integer |
| Name | String |
| Salary | Integer |

**Note:** *Salary* is per month.

**Constraints**

$1000 < \text{Salary} < 10^5$.

**Sample Input**

| ID | Name | Salary |
|---|---|---|
| 1 | Kristeen | 1420 |
| 2 | Ashley | 2006 |
| 3 | Julia | 2210 |
| 4 | Maria | 3000 |

**Sample Output**

```
2061
```

**Explanation**

The table below shows the salaries *without zeros* as they were entered by Samantha:

| ID | Name | Salary |
|---|---|---|
| 1 | Kristeen | 142 |
| 2 | Ashley | 26 |
| 3 | Julia | 221 |
| 4 | Maria | 3 |

Samantha computes an average salary of $98.00$. The *actual* average salary is $2159.00$.

The resulting error between the two calculations is $2159.00 - 98.00 = 2061.00$. Since it is equal to the integer $2061$, it does not get rounded up.

Solution:

```
SELECT ROUND(AVG(salary)) - ROUND(AVG(REPLACE(salary, '0', '')))
FROM employees;

OR

SELECT ROUND((AVG(salary)) - (AVG(REPLACE(salary, 0, ''))))
FROM employees;

OR

SELECT CEIL(AVG(salary) - AVG(CAST(REPLACE(salary, '0', '') AS DECIMAL)))
FROM EMPLOYEES;
```