

---

## Add up digits multiplied by their position

X93976\_en

---

Write a program that reads numbers from the input, and outputs the result of adding each digit multiplied by its position. We consider the most significant digit to be at position 1, the second most significant digit to be at position 2, and so on and so forth.

For example, given 785902, the program will print 86, which is the result of evaluating  $1 \times 7 + 2 \times 8 + 3 \times 5 + 4 \times 9 + 5 \times 0 + 6 \times 2$ .

### Input

The input has an arbitrary number of cases. Each one is a positive natural number in one line.

### Output

For each case, the output contains a line with the corresponding result of adding digits multiplied by their positions.

#### Sample input 1

```
35102
785902
1010101
101010
1010101
10101
30219834
410938
999999999
999999
113311
13221
2
3
123456789
```

#### Sample output 1

```
26
86
16
9
16
9
159
105
324
189
35
26
2
3
285
```

#### Sample input 2

```
4289384
46930887
81692778
14636916
57747794
24238336
19885387
49760493
96516650
89641422
25202363
50490028
83368691
2520060
44897764
67513927
```

```
65180541
40383427
4089173
3455737
35005212
21595369
94702568
26956430
36465783
61021531
78722863
33665124
45174068
68703136
1513930
1979803
15634023
```

```
35723059
69133070
25898168
59961394
89018457
28175012
56478043
31176230
53377374
59484422
14544920
8413785
56898538
34575199
73594325
49798316
38664371
```

## Sample output 2

```
159
215
229
178
228
155
230
178
141
119
112
131
194
54
223
178
117
154
132
148
73
212
184
136
198
80
176
128
171
133
89
137
99
164
103
224
192
185
97
149
99
182
141
128
149
232
220
156
192
156
```

## Observation

Massive storage solutions are not accepted (like strings or vectors). Read numbers from the input into variables of type `int`; for instance, with `cin >> a`, and solve the problem operating with integers using `+`, `-`, `*`, `/`, and `%`.

Evaluation over 10 points:

- Slow solution: 5 points.
- Fast solution: 10 points.

We understand as fast solution one which is correct, has linear cost and passes the public and private tests. We understand as slow solution one which is not fast, but it is correct and passes the public tests.

### **Problem information**

Author : PRO1

Generation : 2023-11-02 07:23:14

© *Jutge.org*, 2006–2023.

<https://jutge.org>