



AMERICAN COMPUTER SCIENCE LEAGUE

2019-2020

Contest #1

Junior Division - Number Transformation

PROBLEM: Given a positive integer (call it N), a position in that integer (call it P), and a transition integer (call it D). Transform N as follows:

- If the P^{th} digit of N from the right is from 0 to 4, add D to it. Replace the P^{th} digit by the units digit of the sum. Then, replace all digits to the right of the P^{th} digit by 0.
- If the P^{th} digit of N from the right is from 5 to 9, subtract D from it. Replace the P^{th} digit by the leftmost digit of the absolute value of the difference. Then, replace all digits to the right of the P^{th} digit by 0.

Example 1: $N = 7145032$, $P = 2$, $D = 8$. The 2nd digit from the right is 3; add 8 to it ($3+8=11$), and replace the 3 with 1 to get 7145012. Replace the digits to the right by 0s to get 7145010.

Example 2: $N = 1540670$, $P = 3$, $D = 54$. The 3rd digit from the right is 6; the absolute value of $6-54$ is 48; replace with the 4 to get 1540470. Replace the digits to the right with 0s to get 1540400.

INPUT: There will be 5 sets of data. Each set contains 3 positive integers: N , P , and D . N will be less than 10^{15} ; P and D will be valid inputs. No input will cause an output to have a leading digit of 0.

OUTPUT: Print the transformed number. The printed number may not have any spaces between the digits.

SAMPLE INPUT: (<http://www.datafiles.acsl.org/2020/contest1/jr-sample-input.txt>)

```
124987 2 3
540670 3 9
7145042 2 8
124987 2 523
4386709 1 2
```

SAMPLE OUTPUT:

1. 124950
2. 540300
3. 7145020
4. 124950
5. 4386707



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TEST DATA

TEST INPUT:

4318762 4 3

72431685 1 7

123456789 7 8

9876543210 10 25

314159265358 8 428

TEST OUTPUT:

1. 4315000

2. 72431682

3. 121000000

4. 1000000000

5. 314140000000