Funny Calculator

The T company wants to implement a funny calculator which is similar a common calculator. The biggest difference is that the 0-9 digit display will be replaced with A-J. So, A replaces 0, B replaces 1, and so on. Implement a calculator that calculates this kind of expression.

The maximum number of digits allowed for a calculation is 8 digits. All numbers involved in the calculation cannot overflow or underflow. All calculations are integer-based and round off to the nearest integer.

Input Format

```
DB+C*D*(EF+G)
```

An example expression is provided above. Only "+", "-", "*", "/", "(", ")" can be used. There are no whitespaces allowed within a formula. There can only be one line of input.

Output Format

Output the final results using common decimal digit format.

Sample Input/Output

For the given input:

```
DB+C*D*(EF+G)
```

The output is:

337

Note: For Java submissions, name your main class "Task".

Attachments

Attachment Name	Description
FunnyCalculator.c	Sample submission for C
FunnyCalculator.java	Sample submission for Java
FunnyCalculator.sample.1.in	Sample input
FunnyCalculator.sample.1.ans	Answer for sample input

How to test

You can execute the following command to test.
cat FunnyCalculator.sample.1.in | ./FunnyCalculator
337