

Tax Return (taxes)

This year Giorgio has been working on a lot of projects, each with very different characteristics. Now it is time to fill in the tax return, and it is going to be a serious mess! In particular, Giorgio has collected the following incomes:

- X euros as **Partita IVA** (independent contractor);
- Y euros as **Lavoro Occasionale** (casual work);
- Z euros as **Lavoro Dipendente** (dependent employment).

Furthermore, he has also kept a single bill of W euros due to a medical expense.




Figure 1: Giorgio hesitant to fill in the tax return.

The fiscal system in Italy is quite intricate, but for our purposes can be simplified to the following:

- **Partita IVA** income is taxed separately at 40%;
- **Lavoro Occasionale** income is tax-free up to 5000 euros, and any additional amount is taxed together with *lavoro dipendente* incomes;
- **Lavoro Dipendente** income is taxed at 20% up to 10 000 euros, and at 60% for the additional amount.

Furthermore, bills due to medical expenses can be deducted to a **single** source of income **before** computing the amount of taxes due. Splitting of a single bill between different incomes is not allowed, so Giorgio needs to pick only one of his source of incomes and then compute as described above. Help Giorgio calculate the minimum amount of taxes due, in euro cents.

 Among the attachments of this task you may find a template file `taxes.*` with a sample incomplete implementation.

Input

The first line contains the three integers X, Y, Z . The second line contains integer W .

Output

You need to write a single line with an integer: the minimum amount of euro cent that Giorgio is required to pay in taxes.

Constraints

- $0 \leq X, Y, Z, W \leq 1\,000\,000$.

Scoring

Your program will be tested against several test cases grouped in subtasks. In order to obtain the score of a subtask, your program needs to correctly solve all of its test cases.

- **Subtask 1 [5 points]**: Examples.
- **Subtask 2 [25 points]**: $X = Y = 0$.
- **Subtask 3 [30 points]**: $W = 0$.
- **Subtask 4 [40 points]**: No additional limitations.

Examples

input.txt	output.txt
250 3400 400 500	8000
8500 9000 12000 4500	630000

Explanation

In the **first sample case**, the best option is to deduct the medical expenses from the *partita IVA* income, thus paying $400 \times 20\% = 80$ euros (that is, 8 000 euro cents).

In the **second sample case**, the best option is to deduct the medical expenses from the *lavoro dipendente* income, thus totalling $(9\,000 - 5\,000) + (12\,000 - 4\,500) = 11\,500$ euros to be taxed along the *lavoro dipendente* rules. The total amount of taxes is then $8\,500 \times 40\% + 10\,000 \times 20\% + 1\,500 \times 60\% = 6\,300$ euros (that is, 630 000 euro cents).