# IIUC ONLINE CONTEST 2008 <br> Problem E: The Bus Driver Problem <br> Input: standard input <br> Output: standard output 

In a city there are $\mathbf{n}$ bus drivers. Also there are $\mathbf{n}$ morning bus routes $\& \mathbf{n}$ afternoon bus routes with various lengths. Each driver is assigned one morning route \& one evening route. For any driver, if his total route length for a day exceeds $\mathbf{d}$, he has to be paid overtime for every hour after the first $\mathbf{d}$ hours at a flat $\mathbf{r}$ taka / hour. Your task is to assign one morning route $\&$ one evening route to each bus driver so that the total overtime amount that the authority has to pay is minimized.

## Input

The first line of each test case has three integers $\mathbf{n}, \mathbf{d}$ and $\mathbf{r}$, as described above. In the second line, there are $\mathbf{n}$ space separated integers which are the lengths of the morning routes given in meters. Similarly the third line has $\mathbf{n}$ space separated integers denoting the evening route lengths. The lengths are positive integers less than or equal to 10000 . The end of input is denoted by a case with three 0 s .

## Output

For each test case, print the minimum possible overtime amount that the authority must pay.

## Constraints

- $\quad 1 \leq \mathrm{n} \leq 100$
- $\quad 1 \leq \mathrm{d} \leq 10000$
$-\quad 1 \leq r \leq 5$

| Sample Input | Output for Sample Input |
| :--- | :--- |
| 2205 | 50 |
| 1015 | 0 |
| $10 \quad 15$ |  |
| 2205 |  |
| 1010 |  |
| 1010 | 0 |

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