## Integers

## English

Find two nonnegative integers $x 1$ and $x 2$ so that $a_{1}{ }^{*} x_{1}+b_{1}=a_{2}{ }^{*} x_{2}+b_{2}$ and $x_{1}+x_{2}$ is minimized. Given that there exist $x_{1}$ and $x_{2}$ satisfying the above equation.

## Input

- A single line containing four integers $a_{1}, b_{1}, a_{2}, b_{2}$ (the integers are within the interval [0..231-1].


## Output

- Print two integers $\mathrm{x}_{1}, \mathrm{x}_{2}$.


## Example

Input
3455

## Output

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