

TIEMPO JUNTOS grado 10

TIEMPO JUNTOS

In this day an exceptional event will happen in the forest - The hedgehog Filya visit his old friend Sonya!

Sonya is an owl and sleeps during the day and awake from minute to minute $L1$ $r1$, inclusive. In addition, during the minute she preens k and is not available for Filya.

Filya works hard and plans to visit Sonya minute to minute $r2$ $L2$, inclusive.

Calculate the number of minutes you can spend together.

[SPANISH VERSION](#)

Input

The only line of input contains integers $L1$, $R1$, $L2$, $R2$ and k ($1 \leq L1, R1, L2, R2, k \leq 1018$, $L1 \leq R1$, $L2 \leq R2$), providing time slots for Sonya and Filya and the moment of time when Sonya preens.

Output

Print an integer - the number of minutes that Sonya and Filya can spend together.

Example

Input:

1 10 9 20 1

Output:

2

Input:

1 100 50 200 75

Output:

50

Note

In the first example, can be together during the 9 to 10 minutes

In the second example, they can be together from 50 to 74 minutes and 76-100