

# Problem I : Detective Conan Nemesis

## Statement:

Kaitou Kid wanted to go big in his last operation. So, he decided to steal the Monalisa from the Louvre. His plan was perfect and no one could decipher his riddles and tricks and now the masterpiece and the thief are both gone. Hopefully, Detective Conan was clever enough to solve the mystery and he is sure that his nemesis is going to escape with the painting from the roof with a helicopter. However, it took him too much time to get his answers and now Kaitou is on the run.

Given the position and speed of both Conan and Kaitou Kid on the roof, can you tell if conan can catch him before reaching the rope attached to the helicopter.

The roof is an infinite 2d plan with 2 axes X and Y.

**NOTE:** Conan is tired from climbing all the way to the roof so he can't run faster than Kaitou Kid.

## Input :

The first line contains three reals **Xc**, **Yc** and **Sc** ( $0 \leq Xc, Yc \leq 10E308$ ,  $0 < Sc$ ) — the position and speed of Conan.

The second line contains three reals **Xk**, **Yk** and **Sk** ( $0 \leq Xk, Yk \leq 10E308$ ,  $0 < Sk$ ) — the position and speed of Kaitou.

The last line contains two reals **Xh** and **Yh** ( $0 \leq Xh, Yh \leq 10E308$ ) — the position of the Helicopter.

**NOTE:** 1-  $Sc \leq Sk$

2- If you are using C++, Use double or long double instead of float and %lf and %LF instead of %f.

## Output :

Print YES if he can catch him. Otherwise, print NO.

## Example:

Input :

```
0.05 15 5
19 20 10
5 5
```

Output :

```
NO
```

Input :

```
0 1 1
0 2 1
1 1
```

Output :

Yes