



Complete the graph

Submit solution

All submissions
Best submissions

✔ Points: 100 (partial)

Time limit: 4.0s

■ Memory limit: 256M

Author:

> Problem type

➤ Allowed languages C, C++

Problem Statement

Tanay the Coder has drawn an undirected graph of n vertices numbered from 0 to n - 1 and m edges between them.

Each edge of the graph is weighted, each weight is a positive integer.

The next day, Tanay the Coder realized that some of the weights were erased and the remaining modified! So his task is to reassign

positive integer weight to each of the edges which weights were erased, so that the length of the shortest path between vertices s and t in the resulting graph is exactly L.

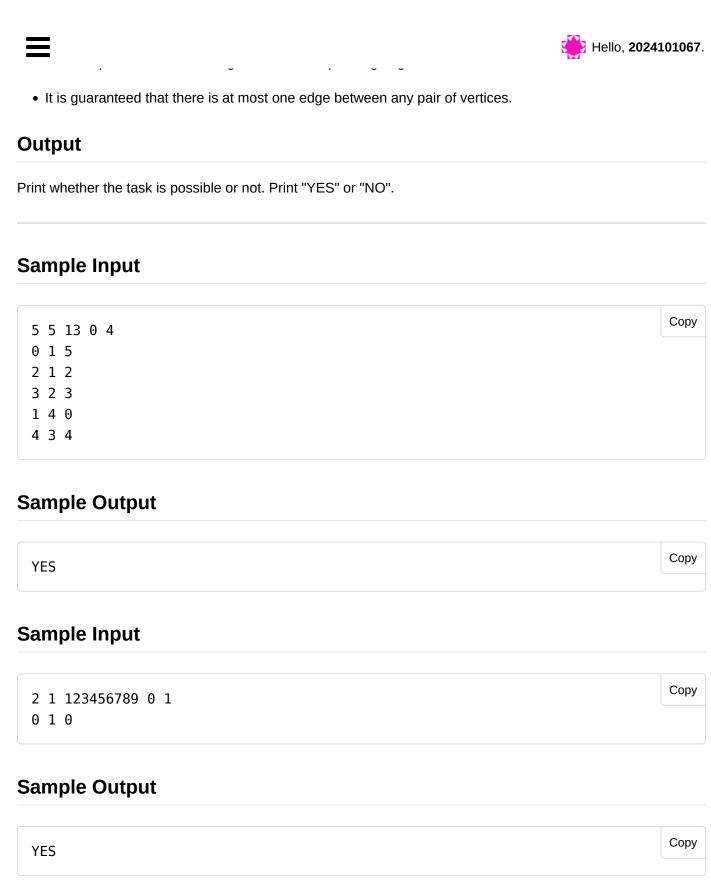
Can you help him determine if this task is possible?

Input

- The first line contains five integers n, m, L, s, t, The number of vertices, number of edges, the desired length of shortest path, starting vertex and ending vertex respectively.
 - $0.2 \le n \le 300000$
 - $0.01 \le m \le 400000$
 - $0.01 \le L \le 1 * 10^{15}$
 - $\circ\ 0 \leq s,t \leq n-1$
 - $\circ s \neq t$
- Then, *m* lines describing the edges of the graph follow. *i*-th of them contains three integers, *u_i*, *v_i*, *w_i*, where *u_i* and *v_i* denote the endpoints of the edge and *w_i* denotes its weight.

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Sample Input

2 1 99999999 1 0 0 1 1000000000

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	Hello, 2024101067 .
NO	Сору
Clarifications	Request clarification

No clarifications have been made at this time.

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