# Problem E. Edge Subsets

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|---|---|
| Input file: | *standard input* |
| Output file: | *standard output* |
| Time limit: | 6 seconds |
| Memory limit: | 1024 mebibytes |

You are given integers $A, B$, and a simple undirected graph of $N$ vertices and $M$ edges. The vertices are numbered from 1 through $N$, and the edges from 1 through $M$. The edge $i$ connects the vertices $U_i$ and $V_i$. Here, it is guaranteed that $V_i - U_i = A$ or $V_i - U_i = B$.

Find the number of matchings of the graph, modulo 998244353. Note that a matching of the graph is a subset of edges whose end-points are all distinct.

## Input

The first line contains integers $N$ ($3 \le N \le 200$), $M$ ($1 \le M \le 400$), $A$, and $B$ ($1 \le A < B \le N - 1$).

The following $M$ lines describe the edges. The $i$-th of those lines contains integers $U_i$ and $V_i$ ($1 \le U_i < V_i \le N$, $V_i - U_i = A$ or $V_i - U_i = B$). There are no self-loops or multi-edges.

## Output

Print the answer.

## Examples

| standard input | standard output |
|---|---|
| 4 3 1 2<br>1 2<br>1 3<br>3 4 | 5 |
| 10 14 2 4<br>5 7<br>7 9<br>2 6<br>6 8<br>1 5<br>3 7<br>4 8<br>1 3<br>4 6<br>8 10<br>3 5<br>5 9<br>2 4<br>6 10 | 225 |