# Problem I

## Draw a Polygon

**Time limit: 1 second**
**Memory limit: 256 megabytes**

Your task is to draw a simple polygon with exactly $n$ vertices. A *simple polygon* is a non-self-intersecting polygon without holes, and no three **consecutive** vertices are collinear. All vertex coordinates must be integers within the range $[-10^9, 10^9]$.

In addition, the number of *diagonals lying entirely inside* the polygon must be exactly $k$. (A diagonal of a polygon is a segment connecting two non-adjacent vertices.)

## Input

The only line contains two integers $n$ and $k$ ($4 \le n \le 100$, $0 \le k \le \frac{n(n-3)}{2}$).

## Output

If it is impossible to draw such a polygon, print a single word `No`. Otherwise, print `Yes` on the first line, followed by $n$ lines containing integer pairs $(x_i, y_i)$ ($-10^9 \le x_i, y_i \le 10^9$) — the vertices of the polygon listed either clockwise or counterclockwise.

The polygon must not intersect or touch itself, no two vertices may coincide, and no three consecutive vertices may lie on a common line.

| Sample Input | Sample Output |
|---|---|
| 5 4 | Yes<br>0 0<br>3 0<br>2 1<br>3 2<br>0 2 |
| 5 2 | Yes<br>0 0<br>2 0<br>1 1<br>2 2<br>0 2 |
| 4 0 | No |