R - Fancy Fence

Emuskald needs a fence around his farm, but he is too lazy to build it himself. So he purchased a fence-building robot.

He wants the fence to be a regular polygon. The robot builds the fence along a single path, but it can only make fence corners at a single angle *a*.

Will the robot be able to build the fence Emuskald wants? In other words, is there a regular polygon which angles are equal to *a*?

**Input**

The first line of input contains an integer *t* (0 < *t* < 180) — the number of tests. Each of the following *t* lines contains a single integer *a* (0 < *a* < 180) — the angle the robot can make corners at measured in degrees.

**Output**

For each test, output on a single line "YES" (without quotes), if the robot can build a fence Emuskald wants, and "NO" (without quotes), if it is impossible.

**Examples**

**Input**

3  
30  
60  
90

**Output**

NO  
YES  
YES

**Note**

In the first test case, it is impossible to build the fence, since there is no regular polygon with angle 300.

In the second test case, the fence is a regular triangle, and in the last test case — a square.