Dexter's Time Machine

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	4 megabytes

One day, *Dexter* made a time machine and wanted to test it. For the time machine to work, a gate has to be opened. The gate has a shape of a circle. The interior of the gate is made of material that reflects the light perfectly with no loss (The angle of incidence equals the angle of reflection). The gate also has a laser source at the rightmost point. **You can look at the pictures in the notes for more clarification.**

When the time machine is activated, the laser source emits a light beam inside the gate making an angle θ with the tangent to the gate at the source point. The light beam gets reflected when it hits the interior surface of the gate. The reflected laser beam gets reflected once again when it hits the interior surface. This process continues forever, as the interior of the gate reflects the light perfectly. To activate the time machine, the laser beam must hit the source point (The rightmost point) without intersecting itself, and the resulting shape must have a **non-degenerate area**.

Dexter is very eager to use the time machine, but as the operation of the time machine requires the adjustment of the angle of the laser, he asked his sister *Dee Dee* to help him. *Dee Dee* isn't good at science, so she will ask you t questions, where the i^{th} of them is a possible value of θ, and you have to tell her whether this angle can activate the time machine or not, as not all values of θ can activate it.

Input

The first line of input contains an integer t $(1 \leq t \leq 200)$ — the number of questions.

Each of the following t lines contains an integer θ $(0 < \theta < 180)$ — a possible value of the angle with the tangent to the gate.

Output

For each question, print 'YES' if the angle can activate the time machine, otherwise, print 'NO' (without the quotes).

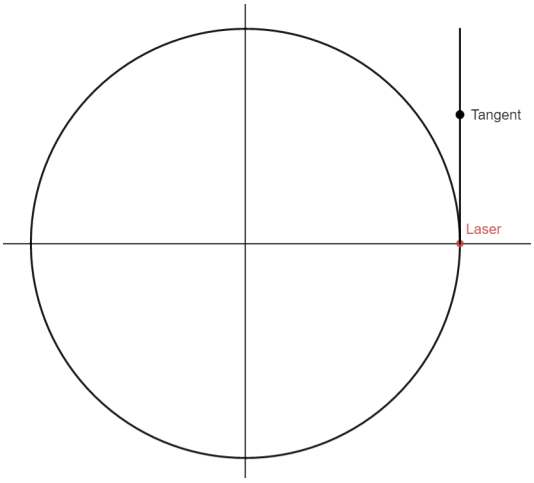
Note: The answer is case sensitive. So, answers like 'Yes', 'YeS', 'yes' will not be accepted.

Example

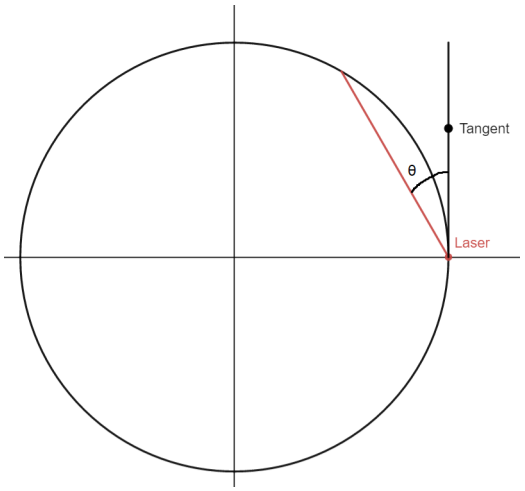
standard input	standard output
2 30 31	YES NO

Note

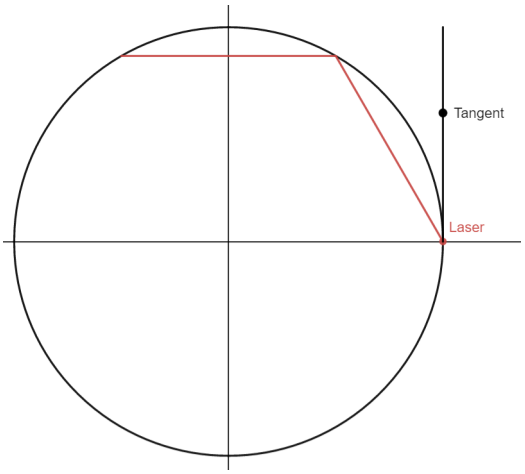
Non-degenerate area means that the area must be positive.



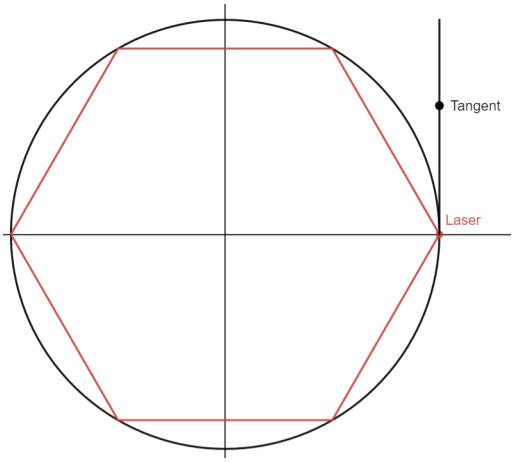
Initial State



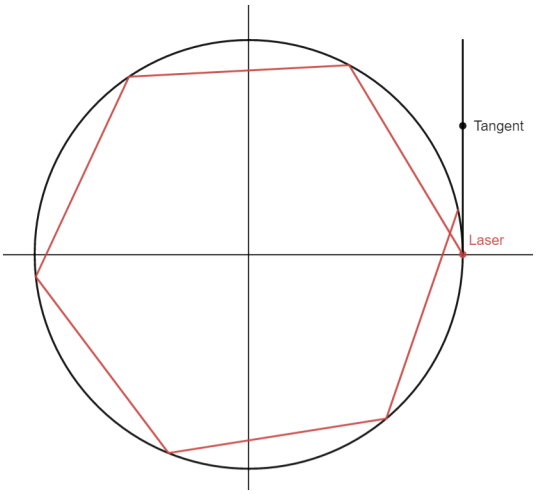
The laser beam is emitted with an angle $\theta = 30$ with the tangent.



The laser beam gets reflected off the interior surface of the gate.



An activating state with the beam returning to the source point.



Inactive state, as the beam didn't return to the source point and intersected itself. $\theta = 31$