Easy Task

Mosa loves geometry, his lifelong ambition is to become a geometry teacher to teach children geometry, one day he wrote down N angles (in degrees), and he wonders if he can construct a polygon using all of the N angles he had written.

Help Mosa with his easy task.

Input

The first line contains a single integer T ($1 <= T <= 100$) – the number of test cases. Then follow T lines. Each line contains a positive integer N ($3 <= N_i <= 20$) – the number of angles, then follows N real numbers ($1 < N_i < 180$) separated by spaces.

Output

For each test case print one line that contains "POSSIBLE" if it's possible for Mosa to construct a polygon with N angles, otherwise print "IMPOSSIBLE" if it's not possible.

Example

Input:
3
3 60 62.5 57.5
4 135.5 44.5 135.5 44.5
4 100 95 160 10

Output:
POSSIBLE
POSSIBLE
IMPOSSIBLE