Problem F
Roots! Really?
Time Limit: 2 seconds

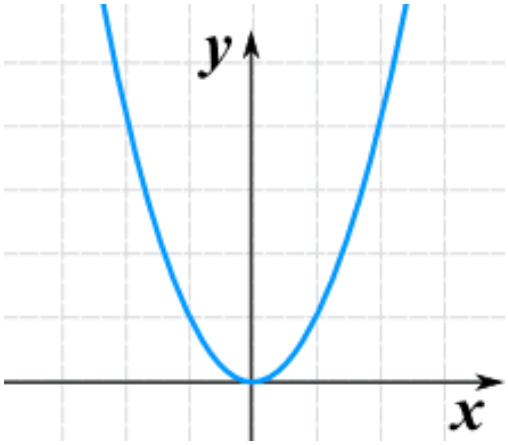
A quadratic equation

$$ax^2 + bx + c = 0$$

has two solutions x_+ and x_-, called roots, which are given by

$$x_\pm = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}.$$

The two roots may be real or complex, and they may be identical or distinct. Given a quadratic equation and an interval $[s, t]$ (with $s \leq t$), we want to know if the equation has a real root in the interval $[s, t]$. That is, is it the case that $s \leq r \leq t$ where r is any of the roots x_- or x_+?



Input

The first line of the input contains an integer, N, the number of test cases ($1 \leq N \leq 1,000$). Then follows N lines, each containing five integers, a, b, c, s, and t, with $-10^7 \leq a, b, c, s, t \leq 10^7$, $a \neq 0$, and $s \leq t$.

Output

For each of the N test cases, output "Yes" if the equation $ax^2 + bx + c = 0$ has a real root in the interval $[s, t]$. Output "No" otherwise.

Sample Input	Sample Output
3 1 0 0 -1 0 -1 5 -4 2 3 4 4 1 0 100	Yes No No