Binary Again

One day I was playing card game on the computer of ACM ICPC Training Lab and my friend Istiyak was thinking something. Suddenly he said, "Munna, can you tell me whether A is divisible B or not?".

Then I said to him, "That's very simple! tell me A and B". Then he said, "That's not simple as you are thinking. I will tell you the binary of A and B". Then he asked me that can I do it now?

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No need to be a binary code expert to see danger_
BE CAREFULL! THINK! DANGER IS EVERYWHERE!
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I am not the man who can be defeated easily. But I also don't know how to do it. As you are a good friend of mine. You are going to complete this task in my favor.

Input

On the first line you will be given the test case number T(T<255).

Then for each test case you will be given two set of **Binary number**, one each line. Each set of binary will fit on **64 bit integers**.

Output

For each test case print the test case number and print "YES" if A is divisible by B, otherwise print "NO" without quotes.

Example

Input:

2

11010

10

1111

11

111

11

Output:

Case 1: YES Case 2: YES Case 3: NO

Problem Setter:

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