# Questions

## Dynamic Programming

### Regular expression match

Given an input “**xaabyc**” and regular expression **“xa\*b.c”**

We need to check if the pattern matches the input. We need to use dynamic programming using tabulation to solve this approach.

## Array

### Multiplication without that position value

First loop over the array and calculate the total multiplication. Then again iterate over the array and divide the total multiplication with the positional element.

Time complexity will be **O (2n)** because two times iteration.

**Approach 2:**

If we asked to not use division?

We use one loop to find all the pre multiplication except that position.

Other loop from last position to calculate after sum.

One more loop to multiply before and after sum.