1202A - You Are Given Two Binary Strings...

Idea: **adedalic**

Tutorial

1202A - You Are Given Two Binary Strings...

Multiplying by power of 2 is "shift left" binary operation (you, probably, should know it). Reverse x and y for the simplicity and look at leftmost 1 in y (let's denote its position as pos_y).

If you move it to 0 in x then you make the rev_k lexicographically bigger than the reverse of x. So you should move it to 1 in x too. You can choose any 1 with position $\ge pos_y$.

Let pos_x be the minimum position of 1 in x, such that $pos_x \ge pos_y$. You must move pos_y to pos_x, otherwise the 1 in pos_x still be present in rev_k and it will be not optimal.

So, the solution is next: reverse x and y, find pos_y, find $pos_x \ge pos_y$, print $pos_x - pos_y$.

Solution (adedalic)

```kotlin
fun main(args: Array<String>) {
    val T = readLine()!!.toInt()
    for (tc in 1..T) {
        val x = readLine()!!.reversed()
        val y = readLine()!!.reversed()

        val posY = y.indexOf('1')
        val posX = x.indexOf('1', posY)
        println(posX - posY)
    }
}
```