steps

a = 101 = 5

b = 011 = 3

1. blending [a = a ^ b

2. assigning [b = a ^ b

a = a ^ b

The blend

1. Blending: In this step; by XOR'ing a with b, we create a blend, which is actually an instruction. And then we assign this value to a.

2. Assigning: Here we assign their new values to the variables, using the instruction set.

How XOR'ing the blend with b gives us a? (first step of the assigning step)

1	^	1	≡ 0
1	^	0	≡ 1
0	^	1	≡ 1
0	^	0	≡ 0

XOR sign table

blend's respective bit:

1 ^ b ≡ b'

0 ^ b ≡ b

If respective bits of the 2 numbes were different

If the bits were the same

So, if the 2 bits were different in blending, the bit in b flips, becoming the respective a bit.

And if the 2 bits were the same, the b bit stays the same