In More Depth: Logical Instructions

The full MIPS instruction set has another logical operation not mentioned thus far: `xor`. The operation `xor` stands for exclusive OR. The table that follows defines this operation on a bit-by-bit basis. This instruction is useful in the following exercise.

A	B	A `xor` B
0	0	0
0	1	1
1	0	1
1	1	0

2.59 [15] <§2.5> Show the minimal MIPS instruction sequence for a new instruction called `swap` that exchanges two registers. After the sequence completes, the Destination register has the original value of the Source register, and the Source register has the original value of the Destination register. Convert this instruction:

```
swap $s0,$s1
```

The hard part is that this sequence *must use only these two registers!* [Hint: It can be done in three instructions if you use the new logical instruction. What is the value of `(A xor B xor A)`?]