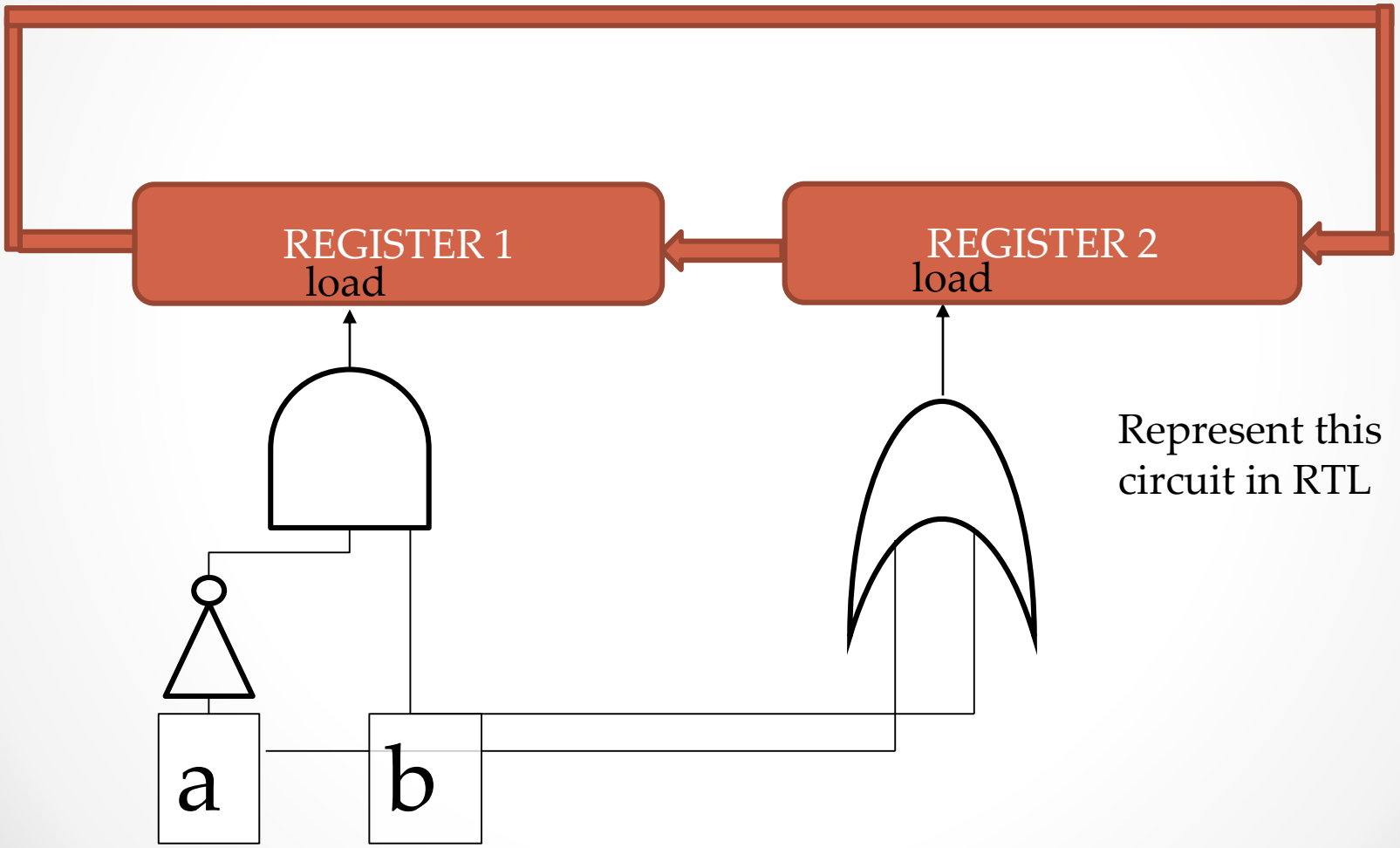
QUIZ1



Represent this circuit in RTL

QUIZ2

Represent the following conditional statement in RTL:

if (P = = 1) then R1← R2 else if (Q = = 1) then R1← R3

QUIZ3

Use

- A 4-bit counter with parallel load
- A 4-bit adder

To draw a block that implements the following statements in RTL:

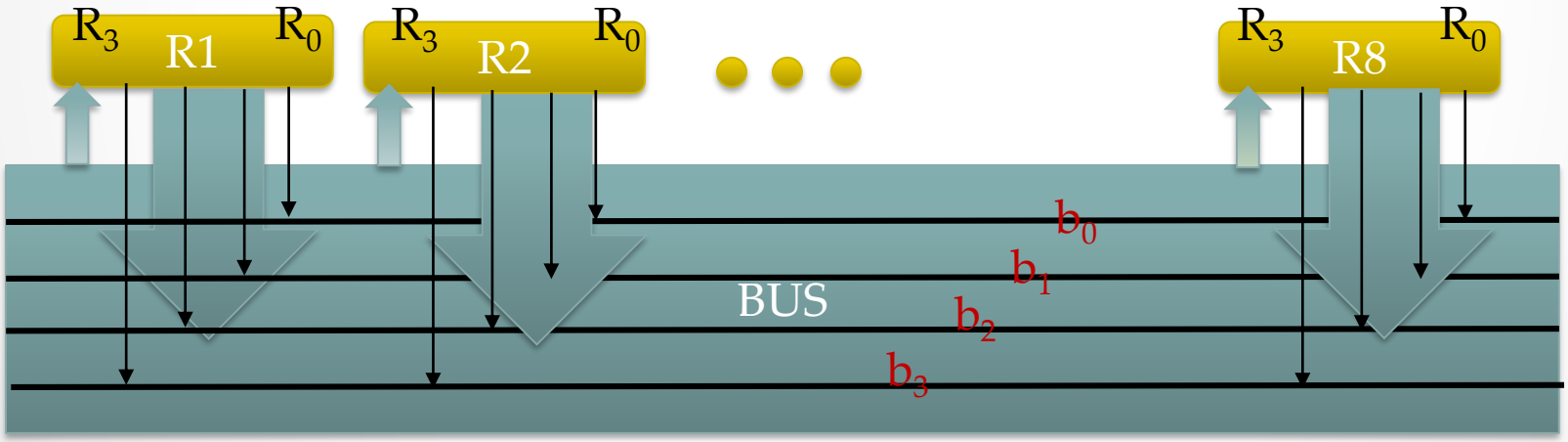
$$x \quad : R1 \leftarrow R1 + R2$$
$$x'y : R1 \leftarrow R1 + 1$$

Where:

- R1 is the 4-bit counter with parallel load
- R2 is a 4-bit register

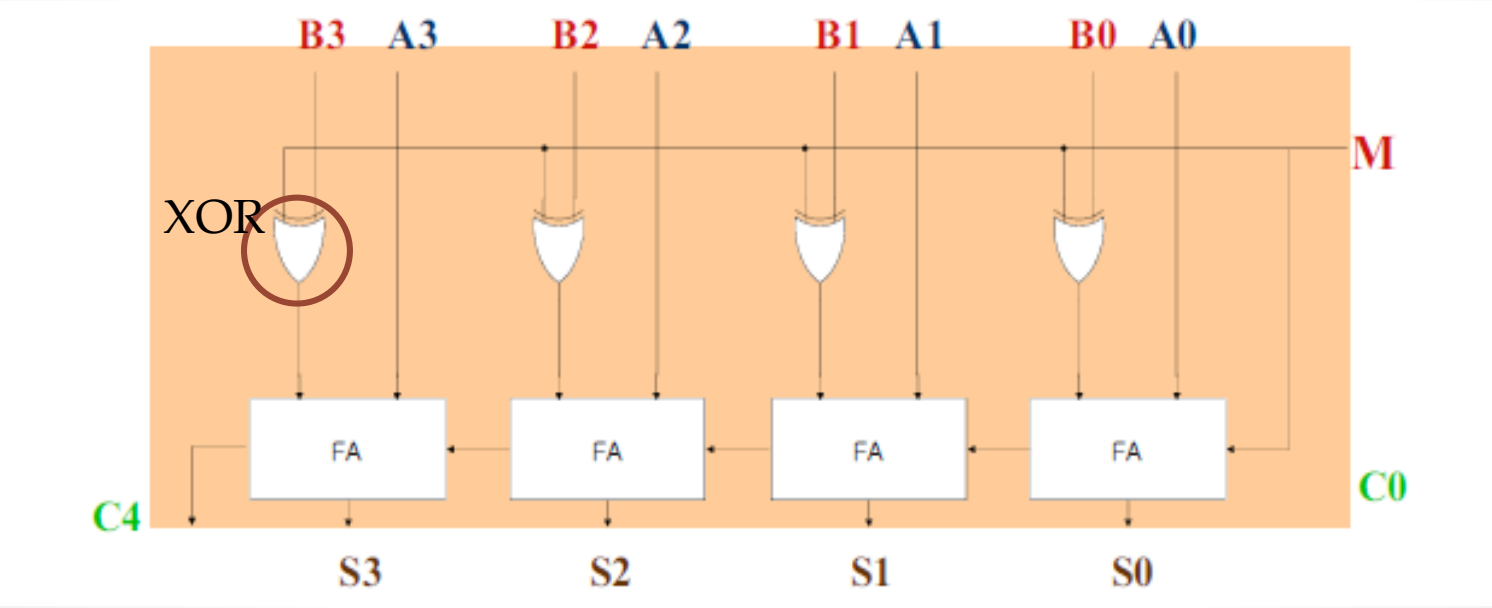
QUIZ4

For the following bus:
How many multiplexers are needed?
What will be the size of each multiplexer?

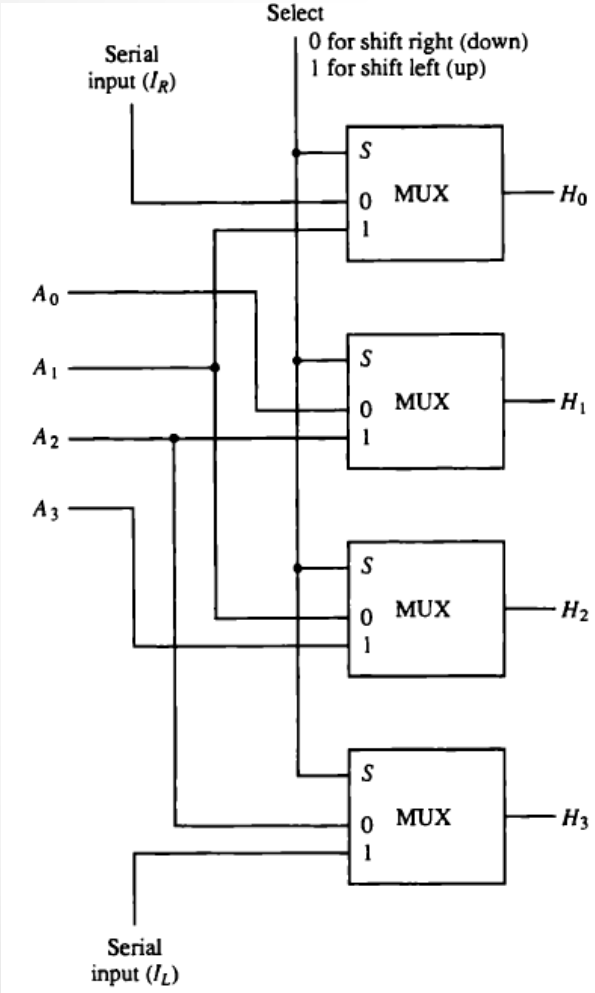


QUIZ5

M	A	B	S	C_4
0	0111	0110		
1	1100	1000		
1	0101	1010		



QUIZ6



Function table

Select	Output			
S	H_0	H_1	H_2	H_3
0	I_R	A_0	A_1	A_2
1	A_1	A_2	A_3	I_L

Suppose:
A = 1001, S = 1, I_R = 1, I_L = 0
What will be the output value of
H= ($H_3H_2H_1H_0$)