

# aufgabe\_1.6.3\_mit\_rechnung

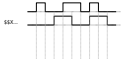
## Student Group

First Name	Surname	Matrikel Nr.

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## Step-by-step solution for $X_0$ ; $XOR$ ; $X_1$

1. Interpretation of the timing diagram:  
 $\quad$



The time course of  $X_0$  and  $X_1$  can be interpreted as  $0$ 's and  $1$ 's

1. Interpretation of the timing diagram:  
 $\quad$



2. Sometimes an intermediate step is advantageous:  
\$\quad\$



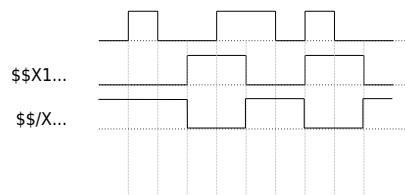
3. Next we have to find the result for each column:  
\$\quad\$

This result can be reused for time steps with similar inputs.

3. Next we have to find the result for each column:  
\$\quad\$

4. Applying this for all possible inputs:  
\$\quad\$

5. Final step: drawing a time diagram again  
\$\quad\$



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