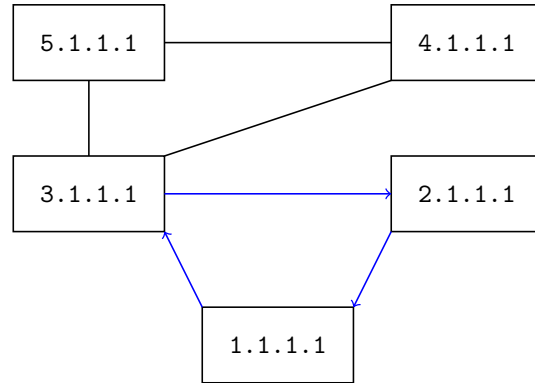
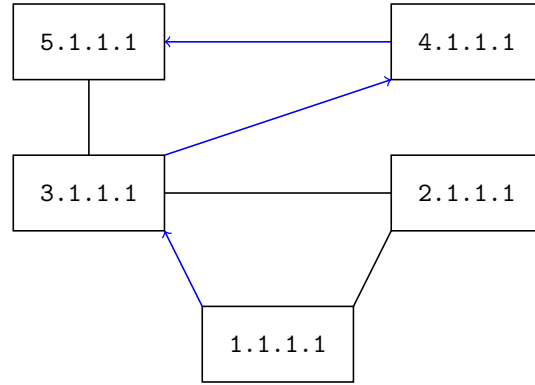
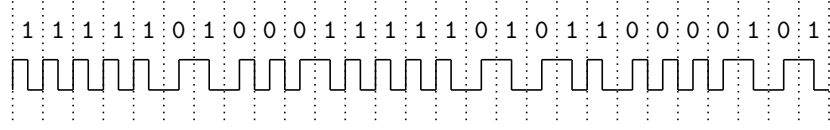


$$C = \left( \begin{array}{c|c|c} \begin{array}{ccc|ccc} a_{11} & \dots & * & * & \dots & * \\ \vdots & \ddots & \vdots & \vdots & & \vdots \\ 0 & \dots & a_{rr} & * & \dots & * \\ \hline 0 & \dots & 0 & 0 & \dots & 0 \\ \vdots & & \vdots & \vdots & & \vdots \\ 0 & \dots & 0 & 0 & \dots & 0 \end{array} & 0 & \\ \hline 0 & \begin{array}{ccc|ccc} b_{11} & \dots & * & * & \dots & * \\ \vdots & \ddots & \vdots & \vdots & & \vdots \\ 0 & \dots & b_{ss} & * & \dots & * \\ \hline 0 & \dots & 0 & 0 & \dots & 0 \\ \vdots & & \vdots & \vdots & & \vdots \\ 0 & \dots & 0 & 0 & \dots & 0 \end{array} & \end{array} \right)$$

$$C' = \left( \begin{array}{cccccc|ccc} a_{11} & \dots & \dots & \dots & \dots & * & * & \dots & * \\ \vdots & \ddots & & & & \vdots & \vdots & & \vdots \\ \vdots & & a_{rr} & & & \vdots & \vdots & & \vdots \\ \vdots & & & b_{11} & & \vdots & \vdots & & \vdots \\ \vdots & & & & \ddots & \vdots & \vdots & & \vdots \\ 0 & \dots & \dots & \dots & \dots & b_{ss} & * & \dots & * \\ \hline 0 & \dots & \dots & \dots & \dots & 0 & 0 & \dots & 0 \\ \vdots & & & & & \vdots & \vdots & & \vdots \\ 0 & \dots & \dots & \dots & \dots & 0 & 0 & \dots & 0 \end{array} \right)$$




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**Algorithm 1** Swapping values
 

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```

1: procedure SWAP( $a, b$ )
2:    $t \leftarrow a$ 
3:    $a \leftarrow b$ 
4:    $b \leftarrow t$ 
5: end procedure

```

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