

Step	Algorithm: $B = LB$
1a	$\{B = \hat{B}$ }
4	$L \rightarrow \left(\begin{array}{c c} L_{TL} & L_{TR} \\ \hline L_{BL} & L_{BR} \end{array} \right), B \rightarrow \left(\begin{array}{c} B_T \\ \hline B_B \end{array} \right)$ <p style="text-align: center;">where L_{BR} is 0×0, B_B has 0 rows</p>
2	$\left\{ \left(\begin{array}{c} B_T \\ \hline B_B \end{array} \right) = \left(\begin{array}{c} \hat{B}_T \\ \hline L_{BR} \hat{B}_B \end{array} \right) \right\}$
3	while $m(L_{BR}) < m(L)$ do
2,3	$\left\{ \left(\begin{array}{c} B_T \\ \hline B_B \end{array} \right) = \left(\begin{array}{c} \hat{B}_T \\ \hline L_{BR} \hat{B}_B \end{array} \right) \wedge m(L_{BR}) < m(L) \right\}$
5a	$\left(\begin{array}{c c} L_{TL} & L_{TR} \\ \hline L_{BL} & L_{BR} \end{array} \right) \rightarrow \left(\begin{array}{cc c} L_{00} & l_{01} & L_{02} \\ \hline l_{10}^T & \lambda_{11} & l_{12}^T \\ \hline L_{20} & l_{21} & L_{22} \end{array} \right), \left(\begin{array}{c} B_T \\ \hline B_B \end{array} \right) \rightarrow \left(\begin{array}{c} B_0 \\ \hline b_1^T \\ \hline B_2 \end{array} \right)$ <p style="text-align: center;">where λ_{11} is 1×1, b_1 has 1 row</p>
6	$\left\{ \left(\begin{array}{c} B_0 \\ \hline b_1^T \\ \hline B_2 \end{array} \right) = \left(\begin{array}{c} \hat{B}_0 \\ \hline \hat{b}_1^T \\ \hline L_{22} \hat{B}_2 \end{array} \right) \right\}$
8	$B_2 := l_{21} b_1^T + B_2$ $b_1^T := \lambda_{11} b_1^T$
7	$\left\{ \left(\begin{array}{c} B_0 \\ \hline b_1^T \\ \hline B_2 \end{array} \right) = \left(\begin{array}{c} \hat{B}_0 \\ \hline \lambda_{11} \hat{b}_1^T \\ \hline l_{21} b_1^T + L_{22} \hat{B}_2 \end{array} \right) \right\}$
5b	$\left(\begin{array}{c c} L_{TL} & L_{TR} \\ \hline L_{BL} & L_{BR} \end{array} \right) \leftarrow \left(\begin{array}{cc c} L_{00} & l_{01} & L_{02} \\ \hline l_{10}^T & \lambda_{11} & l_{12}^T \\ \hline L_{20} & l_{21} & L_{22} \end{array} \right), \left(\begin{array}{c} B_T \\ \hline B_B \end{array} \right) \leftarrow \left(\begin{array}{c} B_0 \\ \hline b_1^T \\ \hline B_2 \end{array} \right)$
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	endwhile
2,3	$\left\{ \left(\begin{array}{c} B_T \\ \hline B_B \end{array} \right) = \left(\begin{array}{c} \hat{B}_T \\ \hline L_{BR} \hat{B}_B \end{array} \right) \wedge \neg(m(L_{BR}) < m(L)) \right\}$
1b	$\{B = L\hat{B}$ }

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1a	$\{B = \hat{B}\}$
4	where
2	{
3	while do
2,3	{ \wedge }
5a	where
6	{
8	
7	{
5b	
2	{
	endwhile
2,3	{ $\wedge \neg($) }
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	where
2	$\left\{ \left(\frac{B_T}{B_B} \right) = \left(\frac{\hat{B}_T}{L_{BR}\hat{B}_B} \right) \right\}$
3	while do
2,3	$\left\{ \left(\frac{B_T}{B_B} \right) = \left(\frac{\hat{B}_T}{L_{BR}\hat{B}_B} \right) \wedge \right.$
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	where
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	endwhile
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$$B_2 := l_{21}b_1^T + B_2$$

$$b_1^T := \lambda_{11}b_1^T$$

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