Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
4	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right)$, $x \rightarrow \left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right)$ where A_R has 0 columns, x_B has 0 rows
2	$\{y = A_R x_B + \widehat{y}$ $\}$
3	while $n(A_R) < n(A)$ do
2,3	$\{ \quad y = A_R x_B + \widehat{y} \wedge n(A_R) < n(A)$ $\}$
5a	$\left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \rightarrow \left(\begin{array}{cc\|c} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \rightarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$ where a_1 has 1 column, χ_1 has 1 row
6	$\{ \quad y = A_2 x_2 + \widehat{y}$ $\}$
8	$y := \chi_1 a_1 + y$
7	$\{ \quad y = \chi_1 a_1 + A_2 x_2 + \widehat{y}$ $\}$
5b	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \leftarrow \left(\begin{array}{c\|cc} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \leftarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$
2	$\{ \quad y = A_R x_B + \widehat{y}$ $\}$
	endwhile
2,3	$\{y = A_R x_B + \widehat{y} \wedge \neg(n(A_R) < n(A))$ $\}$
1b	$\{y = Ax + \widehat{y}$ $\}$

Step	Algorithm: $y := Ax + y$
1a	{ }
4	where
2	{ }
3	while do
2,3	{ $\wedge$ }
5a	where
6	{ }
8	
7	{ }
5b	
2	{ }
	endwhile
2,3	{ $\wedge \neg($) }
1b	{ }

Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
4	where
2	$\{$ $\}$
3	while do
2,3	$\{$ $\wedge$ $\}$
5a	where
6	$\{$ $\}$
8	
7	$\{$ $\}$
5b	
2	$\{$ $\}$
	endwhile
2,3	$\{$ $\wedge \neg($ $)$ $\}$
1b	$\{y = Ax + \widehat{y}$ $\}$

Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
4	where
2	$\{y = A_R x_B + \widehat{y}$ $\}$
3	while do
2,3	$\{ \quad y = A_R x_B + \widehat{y} \wedge$ $\}$
5a	where
6	$\{$ $\}$
8	
7	$\{$ $\}$
5b	
2	$\{ \quad y = A_R x_B + \widehat{y}$ $\}$
	endwhile
2,3	$\{y = A_R x_B + \widehat{y} \wedge \neg($ $)$ $\}$
1b	$\{y = Ax + \widehat{y}$ $\}$

Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
4	where
2	$\{y = A_R x_B + \widehat{y}$ $\}$
3	while $n(A_R) < n(A)$ do
2,3	$\{ \quad y = A_R x_B + \widehat{y} \wedge n(A_R) < n(A)$ $\}$
5a	where
6	$\{$ $\}$
8	
7	$\{$ $\}$
5b	
2	$\{ \quad y = A_R x_B + \widehat{y}$ $\}$
	endwhile
2,3	$\{y = A_R x_B + \widehat{y} \wedge \neg(n(A_R) < n(A))$ $\}$
1b	$\{y = Ax + \widehat{y}$ $\}$

Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
4	$A \rightarrow \left(A_L \middle\vert A_R \right)$, $x \rightarrow \begin{pmatrix} x_T \\ \hline x_B \end{pmatrix}$ where A_R has 0 columns, x_B has 0 rows
2	$\{y = A_R x_B + \widehat{y}$ $\}$
3	while $n(A_R) < n(A)$ do
2,3	$\{ \quad y = A_R x_B + \widehat{y} \wedge n(A_R) < n(A)$ $\}$
5a	where
6	$\{$ $\}$
8	
7	$\{$ $\}$
5b	
2	$\{ \quad y = A_R x_B + \widehat{y}$ $\}$
	endwhile
2,3	$\{y = A_R x_B + \widehat{y} \wedge \neg(n(A_R) < n(A))$ $\}$
1b	$\{y = Ax + \widehat{y}$ $\}$

Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
4	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right)$, $x \rightarrow \left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right)$ where A_R has 0 columns, x_B has 0 rows
2	$\{y = A_R x_B + \widehat{y}$ $\}$
3	while $n(A_R) < n(A)$ do
2,3	$\{ \quad y = A_R x_B + \widehat{y} \wedge n(A_R) < n(A)$ $\}$
5a	$\left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \rightarrow \left(\begin{array}{c\|cc} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \rightarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$ where a_1 has 1 column, χ_1 has 1 row
6	$\{$ $\}$
8	
7	$\{$ $\}$
5b	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \leftarrow \left(\begin{array}{c\|cc} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \leftarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$
2	$\{ \quad y = A_R x_B + \widehat{y}$ $\}$
	endwhile
2,3	$\{y = A_R x_B + \widehat{y} \wedge \neg(n(A_R) < n(A))$ $\}$
1b	$\{y = Ax + \widehat{y}$ $\}$

Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
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2	$\{y = A_R x_B + \widehat{y}$ $\}$
3	while $n(A_R) < n(A)$ do
2,3	$\{ \quad y = A_R x_B + \widehat{y} \wedge n(A_R) < n(A)$ $\}$
5a	$\left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \rightarrow \left(\begin{array}{cc\|c} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \rightarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$ where a_1 has 1 column, χ_1 has 1 row
6	$\{ \quad y = A_2 x_2 + \widehat{y}$ $\}$
8	
7	$\{$ $\}$
5b	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \leftarrow \left(\begin{array}{c\|cc} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \leftarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$
2	$\{ \quad y = A_R x_B + \widehat{y}$ $\}$
	endwhile
2,3	$\{y = A_R x_B + \widehat{y} \wedge \neg(n(A_R) < n(A))$ $\}$
1b	$\{y = Ax + \widehat{y}$ $\}$

Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
4	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right)$, $x \rightarrow \left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right)$ where A_R has 0 columns, x_B has 0 rows
2	$\{y = A_R x_B + \widehat{y}$ $\}$
3	while $n(A_R) < n(A)$ do
2,3	$\{ \quad y = A_R x_B + \widehat{y} \wedge n(A_R) < n(A)$ $\}$
5a	$\left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \rightarrow \left(\begin{array}{cc\|c} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \rightarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$ where a_1 has 1 column, χ_1 has 1 row
6	$\{ \quad y = A_2 x_2 + \widehat{y}$ $\}$
8	
7	$\{ \quad y = \chi_1 a_1 + A_2 x_2 + \widehat{y}$ $\}$
5b	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \leftarrow \left(\begin{array}{c\|cc} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \leftarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$
2	$\{ \quad y = A_R x_B + \widehat{y}$ $\}$
	endwhile
2,3	$\{y = A_R x_B + \widehat{y} \wedge \neg(n(A_R) < n(A))$ $\}$
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Step	Algorithm: $y := Ax + y$
1a	$\{y = \widehat{y}$ $\}$
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2	$\{y = A_R x_B + \widehat{y}$ $\}$
3	while $n(A_R) < n(A)$ do
2,3	$\{ \quad y = A_R x_B + \widehat{y} \wedge n(A_R) < n(A)$ $\}$
5a	$\left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \rightarrow \left(\begin{array}{cc\|c} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \rightarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$ where a_1 has 1 column, χ_1 has 1 row
6	$\{ \quad y = A_2 x_2 + \widehat{y}$ $\}$
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7	$\{ \quad y = \chi_1 a_1 + A_2 x_2 + \widehat{y}$ $\}$
5b	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \leftarrow \left(\begin{array}{c\|cc} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \leftarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$
2	$\{ \quad y = A_R x_B + \widehat{y}$ $\}$
	endwhile
2,3	$\{y = A_R x_B + \widehat{y} \wedge \neg(n(A_R) < n(A))$ $\}$
1b	$\{y = Ax + \widehat{y}$ $\}$

	Algorithm: $y := Ax + y$
	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right)$, $x \rightarrow \left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right)$ where A_R has 0 columns, x_B has 0 rows
	while $n(A_R) < n(A)$ do
	$\left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \rightarrow \left(\begin{array}{c\|cc} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \rightarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$ where a_1 has 1 column, χ_1 has 1 row
	$y := \chi_1 a_1 + y$
	$A \rightarrow \left(\begin{array}{c\|c} A_L & A_R \end{array} \right) \leftarrow \left(\begin{array}{c\|cc} A_0 & a_1 & A_2 \end{array} \right)$, $\left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \leftarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$
	endwhile

Algorithm: $y := Ax + y$

$$A \rightarrow \left(\begin{array}{c|c} A_L & A_R \end{array} \right), \; x \rightarrow \left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right)$$

where A_R has 0 columns, x_B has 0 rows

while $n(A_R) < n(A)$ do

$$\left(\begin{array}{c|c} A_L & A_R \end{array} \right) \rightarrow \left(\begin{array}{c|cc} A_0 & a_1 & A_2 \end{array} \right), \; \left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \rightarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$$

where a_1 has 1 column, χ_1 has 1 row

$$y := \chi_1 a_1 + y$$

$$A \rightarrow \left(\begin{array}{c|c} A_L & A_R \end{array} \right) \leftarrow \left(\begin{array}{c|cc} A_0 & a_1 & A_2 \end{array} \right), \; \left(\begin{array}{c} x_T \\ \hline x_B \end{array} \right) \leftarrow \left(\begin{array}{c} x_0 \\ \hline \chi_1 \\ \hline x_2 \end{array} \right)$$

endwhile