$\begin{bmatrix} c \\ upto(3,4,v_{157}), \ multiply(2,2,v_{149}), \ squares(v_{157},v_{151}), \ add(v_{149},(1+v_{153}),v_{154}), \ sum1(v_{151},v_{154},v_0) \\ [v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{144}),v_{159} \rightarrow 3, v_{160} \rightarrow 0, v_{161} \rightarrow 2 \] \end{bmatrix} \\ \begin{bmatrix} e(v_{162},1), \ upto((4+v_{162}),4,v_{157}), \ multiply((3+v_{162}),(3+v_{162}),v_{149}), \ squares(v_{157},v_{151}), \ add(v_{149},(1+v_{153}),v_{154}), \ sum1(v_{151},v_{154},v_0) \\ [v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{144}),v_{159} \rightarrow 3, v_{160} \rightarrow (1+v_{162}),v_{161} \rightarrow 2, v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{144}),v_{159} \rightarrow 3, v_{160} \rightarrow (1+v_{162}),v_{161} \rightarrow 2, v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{162}),v_{161} \rightarrow 2, v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{162}),v_{161} \rightarrow 2, v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{162}),v_{161} \rightarrow 2, v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{162}),v_{161} \rightarrow 2, v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{162}),v_{161} \rightarrow 2, v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{144}),v_{159} \rightarrow 3, v_{160} \rightarrow (1+v_{162}),v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{144}),v_{159} \rightarrow 3, v_{160} \rightarrow (1+v_{162}),v_{163} \rightarrow 1 \] \\ \\ \end{bmatrix} \\ \begin{bmatrix} v_{144} \rightarrow v_{160},v_{145} \rightarrow (2+v_{144}),v_{146} \rightarrow v_{157},v_{158} \rightarrow (1+v_{144}),v_{159} \rightarrow 3, v_{160} \rightarrow (1+v_{162}),v_{163} \rightarrow (1+v_{162})$ $\begin{bmatrix} \text{le}(2,3), \text{upto}(4,4,\text{v}_{164}), \text{multiply}(2,2,\text{v}_{149}), \text{squares}(3:\text{v}_{164},\text{v}_{151}), \text{add}(\text{v}_{149},(1+\text{v}_{153}),\text{v}_{154}), \text{sum1}(\text{v}_{151},\text{v}_{154},\text{v}_{0}) \\ \text{[v}_{144} \rightarrow \text{v}_{160},\text{v}_{145} \rightarrow (2+\text{v}_{144}),\text{v}_{146} \rightarrow \text{v}_{157},\text{v}_{157} \rightarrow 3:\text{v}_{164},\text{v}_{159} \rightarrow 3,\text{v}_{160} \rightarrow 0,\text{v}_{161} \rightarrow 2,\text{v}_{165} \rightarrow 2,\text{v}_{166} \rightarrow 3] \end{bmatrix}$ $\begin{bmatrix} \text{le}(2,3), \text{upto}(4,4,\text{v}_{164}), \text{multiply}(2,2,\text{v}_{149}), \text{squares}(3:\text{v}_{164},\text{v}_{151}), \text{add}(\text{v}_{149},(1+\text{v}_{153}),\text{v}_{154}), \text{sum1}(\text{v}_{151},\text{v}_{154},\text{v}_{0}) \\ \text{[v}_{144} \rightarrow \text{v}_{160},\text{v}_{145} \rightarrow (2+\text{v}_{144}),\text{v}_{146} \rightarrow \text{v}_{157},\text{v}_{149} \rightarrow (1+\text{v}_{162}),\text{v}_{165} \rightarrow 2,\text{v}_{165} \rightarrow 2,\text{v}_{166} \rightarrow 3] \end{bmatrix}$ $\begin{bmatrix} \text{le}(\text{v}_{162},3), \text{upto}(4,4,\text{v}_{164}), \text{upto}(4+\text{v}_{162}), \text{v}_{165},\text{v}_{167},\text{upto}(4+\text{v}_{162}),\text{v}_{165},\text{v}_{167}), \text{squares}(3:\text{v}_{164},\text{v}_{151}), \text{add}((1+\text{v}_{167}),\text{v}_{154},\text{v}_{0}) \\ \text{[v}_{144} \rightarrow \text{v}_{160},\text{v}_{145} \rightarrow (2+\text{v}_{144}),\text{v}_{146} \rightarrow \text{v}_{157},\text{v}_{149} \rightarrow (1+\text{v}_{162}),\text{v}_{165} \rightarrow 2,\text{v}_{165} \rightarrow 2,\text{v}_{166} \rightarrow 3] \end{bmatrix}$ $le(v_{186}, 1), upto((4 + v_{186}), 4, v_{151}), add(v_{186}, (3 + v_{179}), v_{171}), add(v_{186}, (3 + v_{179}), v_{171}), add(v_{186}, (3 + v_{179}), v_{171}), add(v_{186}, (3 + v_{187}), v_{187}), add(v_{186}, (3 + v_{187}), v_{188}), v_{187}), add(v_{186}, (3 + v_{187}), v_{188}), v_{188}) \\ = (v_{144} \rightarrow v_{160}, v_{185}) \rightarrow (1 + v_{185}), v_{186} \rightarrow (1 + v_{185}), v_{185} \rightarrow (1 + v_{1$ $le(v_{186}, 1), upto((4+v_{186}), 4, v_{157}), add(v_{186}, (3+v_{179}), v_{192}), add(v_{186}, (3+v_{187}), v_{193}), sum1(v_{151}, (3+v_{193}), v_{193}), sum1(v_{186}, v_{181}, v_{187}), v_{188}, v_{181}, v_{181}, v_{181}, v_{182}, v_{181}, v_{182}, v_{183}, v_{184}, v_{181}, v_{182}, v_{183}, v_{184}, v_{184}, v_{185}, v_{1$ $upto(4, 4, v_{192}), add(2, v_{216}, v_{218}), multiply(3, 0, v_{216}), squares(v_{192}, v_{194}), add(4, (1 + v_{153}), v_{154}), sum1((7 + v_{218}) : v_{194}, v_{154}, v_{0}) \\ [v_{144} \rightarrow v_{160}, v_{145} \rightarrow (2 + v_{144}), v_{146} \rightarrow v_{157}, v_{149} \rightarrow (1 + v_{176}), v_{151} \rightarrow v_{193} : v_{194}, v_{157} \rightarrow 3 : v_{164} \rightarrow v_{175} \rightarrow 1, v_{176} \rightarrow (1 + v_{218}), v_{217} \rightarrow 0, v_{178} \rightarrow (1 + v_{218}), v_{177} \rightarrow 0, v_{178} \rightarrow (1 + v_{218}), v_{178} \rightarrow (1 + v_{218}), v_{178} \rightarrow 0, v_{178}$ $upto(4, 4, v_{192}), squares(v_{192}, v_{194}), add(4, (1 + v_{153}), v_{154}), sum1(9: v_{194}, v_{165} \rightarrow 2, v_{169} \rightarrow 0, v_{175} \rightarrow 1, v_{175} \rightarrow$