

Burau Calculus Scratch

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2:53 PM

$$\begin{pmatrix} \omega & h[1] & h[2] & h[3] & h[4] & h[5] \\ t[1] & 0 & a_{12} & a_{13} & a_{14} & a_{15} \\ t[2] & a_{21} & 0 & a_{23} & a_{24} & a_{25} \\ t[3] & a_{31} & a_{32} & 0 & a_{34} & a_{35} \\ t[4] & a_{41} & a_{42} & a_{43} & 0 & a_{45} \\ t[5] & a_{51} & a_{52} & a_{53} & a_{54} & 0 \end{pmatrix}$$

$$\begin{pmatrix} \omega - a_{12} & & & & & \\ & h[1] & & & & \\ t[1] & & 0 & \frac{(\omega - a_{12}) (a_{23} + a_{13} (1 + \frac{a_{32} + a_{42} + a_{52}}{-\omega + a_{12}}))}{\omega} & \frac{(\omega - a_{12}) (a_{24} + a_{14} (1 + \frac{a_{32} + a_{42} + a_{52}}{-\omega + a_{12}}))}{\omega} & \frac{(\omega - a_{12}) (a_{25} + a_{15} (1 + \frac{a_{32} + a_{42} + a_{52}}{-\omega + a_{12}}))}{\omega} \\ t[3] & \frac{a_{31} (\omega - a_{12} - a_{32}) - a_{32} (a_{21} + a_{41} + a_{51})}{\omega} & & 0 & \frac{a_{14} a_{32} + (\omega - a_{12}) a_{34}}{\omega} & \frac{a_{15} a_{32} + (\omega - a_{12}) a_{35}}{\omega} \\ t[4] & \frac{a_{41} (\omega - a_{12} - a_{42}) - a_{42} (a_{21} + a_{31} + a_{51})}{\omega} & & \frac{a_{13} a_{42} + (\omega - a_{12}) a_{43}}{\omega} & 0 & \frac{a_{15} a_{42} + (\omega - a_{12}) a_{45}}{\omega} \\ t[5] & \frac{a_{51} (\omega - a_{12} - a_{52}) - (a_{21} + a_{31} + a_{41}) a_{52}}{\omega} & & \frac{a_{13} a_{52} + (\omega - a_{12}) a_{53}}{\omega} & \frac{a_{14} a_{52} + (\omega - a_{12}) a_{54}}{\omega} & 0 \end{pmatrix}$$