

```

{β = B[ω, Sum[α10 i+j ti hj, {i, {1, 2, 3}}, {j, {4, 5}}]],
  β1 = β // tm1,2→1 // sw1,4;
  β2 = β // sw2,4 // sw1,4 // tm1,2→1,
  FullSimplify[β1] == FullSimplify[β2]
}

```

$$\left\{ \begin{pmatrix} \omega & h_4 & h_5 \\ t_1 & \alpha_{14} & \alpha_{15} \\ t_2 & \alpha_{24} & \alpha_{25} \\ t_3 & \alpha_{34} & \alpha_{35} \end{pmatrix}, \begin{pmatrix} \omega (1 + \alpha_{14} + \alpha_{24}) & h_4 & h_5 \\ t_1 & \frac{(\alpha_{14} + \alpha_{24}) (1 + \alpha_{14} + \alpha_{24} + \alpha_{34})}{1 + \alpha_{14} + \alpha_{24}} & \frac{(\alpha_{15} + \alpha_{25}) (1 + \alpha_{14} + \alpha_{24} + \alpha_{34})}{1 + \alpha_{14} + \alpha_{24}} \\ t_3 & \frac{\alpha_{34}}{1 + \alpha_{14} + \alpha_{24}} & \frac{-\alpha_{15} \alpha_{34} - \alpha_{25} \alpha_{34} + \alpha_{14} \alpha_{35} + \alpha_{24} \alpha_{35}}{1 + \alpha_{14} + \alpha_{24}} \end{pmatrix}, \text{True} \right\}$$