$$
\begin{aligned}
\Pi &= \prod_{j=1}^{n} v_j^{x_j} \; =??? \\
\Pi &= v_1^{x_1} v_2^{x_2} v_3^{x_3} \;\; \Rightarrow \\
1 &= \prod_{j=1}^{n} (\mathsf{M}^{a_{1j}})^{x_j} \\
1 &= \mathsf{M}^{a_{11}x_1} \mathsf{M}^{a_{12}x_2} \mathsf{M}^{a_{13}x_3} \\
1 &= \mathsf{M}^{a_{11}x_1 + a_{12}x_2 + a_{13}x_3}; \Rightarrow \\
0 &= a_{11}x_1 + a_{12}x_2 + a_{13}x_3 + \ldots + a_{1n}x_n \\
1 &= \prod_{j=1}^{n} (\mathsf{M}^{a_{1j}})^{x_j} (\mathsf{L}^{a_{2j}})^{x_j} (\mathsf{T}^{a_{3j}})^{x_j} \;\; \Rightarrow \\
0 &= a_{11}x_1 + a_{12}x_2 + a_{13}x_3 + \ldots + a_{1n}x_n \\
0 &= a_{21}x_1 + a_{22}x_2 + a_{23}x_3 + \ldots + a_{2n}x_n \\
0 &= a_{31}x_1 + a_{32}x_2 + a_{33}x_3 + \ldots + a_{3n}x_n
\end{aligned}
$$

Lá atrás!!!

$$
\begin{aligned}
\Pi_1' &= \rho D^a U^b F^c, \\
\Pi_2' &= \nu D^a U^b F^c.
\end{aligned}
$$

Se tudo for feito certinho,

$$
\begin{aligned}
\Pi_1' &= (\Pi_1)^{\alpha} (\Pi_2)^{\beta}, \\
\Pi_2' &= (\Pi_1)^{\gamma} (\Pi_2)^{\delta}.
\end{aligned}
$$