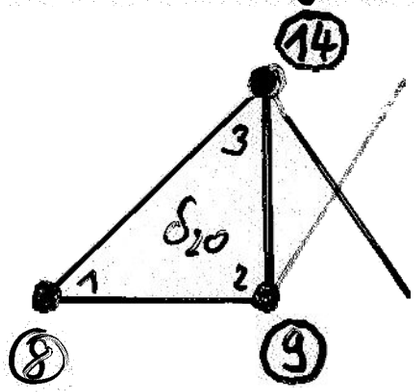
c) Einarbeitung der Randbedingungen:

- Natürliche RB: Γ_2 ($\to \langle F_i \cdot \rangle$), Γ_3 ($\to a(\cdot,\cdot), \langle F_i \cdot \rangle$)
  - inhomogene RB 2. Art: $\int_{\Gamma_2} g_2 p^{(k)} ds \xrightarrow{\oplus} f^{(k)} \to \hat{f}_h$

    Anteile werden wieder elementweise (rand-Kantenweise) generiert, z.B. (9) → (14)



$$p^{(14)}(x) = p^{(20,3)}(x) = p^{(3)}(\xi_{\delta_{20}}(x))$$

$$p^{(9)}(x) = p^{(20,2)}(x) = p^{(2)}(\xi_{\delta_{20}}(x))$$

$$\begin{bmatrix} \times \\ \times \end{bmatrix}$$

$$\int_{(9)}^{(14)} g_2 p^{(9)} ds = \int_0^{\hat{}} g_2(x_{\delta_{20}}(\xi)) \, p^{(2)}(\xi) \, (x_{2,14} - x_{2,9}) \, ds \xrightarrow{\oplus} f^{(9)} \to \hat{f}_h$$

$$\int_{(9)}^{(14)} g_2 p^{(14)} ds = \int_0^{\hat{}} g_2(x_{\delta_{20}}(\xi)) \, p^{(3)}(\xi) \, (x_{2,14} - x_{2,9}) \, ds \xrightarrow{\oplus} f^{(14)} \to \hat{f}_h$$

$$\overset{\text{MP}}{\underset{\text{Gaup 1}}{\approx}} g_2(x_{\delta_{20}}(\tfrac{1}{2})) \, p^{(3)}(\tfrac{1}{2}) \, (x_{2,14} - x_{2,9})$$

Definieren Menge $E_{2,h} := \{e_2 \subset \partial\delta_r \cap \Gamma_2 : \text{inhom. RB 2. Art}\}$ aller Elementkanten mit inhomogenen RB 2. Art:

FOR $e_2 \in E_{2,h}$ **DO**
  FOR $\alpha \in Ae_2 \subset A \approx \{1,2,3\}$ **DO**
    * compute $f^{(e_2,\alpha)} := \int_{e_2} g_2(x) \, p^{(e_2,\alpha)}(x) ds = (*)$
    * determine $i = i(r,\alpha) = i(e_2,\alpha)$
    * update $f^{(i)} := f^{(i)} + f^{(e_2,\alpha)}$
  ENDFOR
ENDFOR