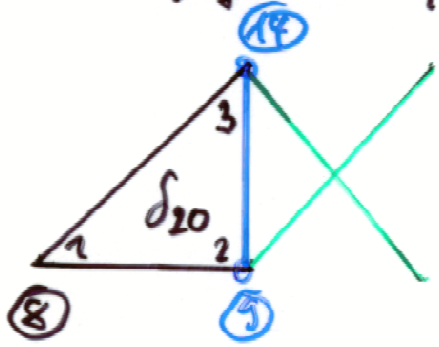
- **Einbau der Randbedingungen:**

a) **Inhomogene RB 2. Art:** $\int_{\Gamma_2} g_2 \varphi_k \, ds \xrightarrow{\oplus} f^{(k)} \rightarrow \hat{f}_k$

Anteile werden wiede elementeweise (rand kanten-weise) generiert, z.B. (9) – (14)



$\varphi_{14}(x) = \varphi_3^{(20)}(x) = \Phi_3(\xi_{20}(x))$

$\varphi_9(x) = \varphi_2^{(20)}(x) = \Phi_2(\xi_{\delta_{20}}(x))$

$$\int_{8}^{14} g_2 p^{(8)} \, ds = \int_0^1 g_2(x_{\delta_{20}}(\xi)) \Phi_2(\xi) (x_{2,14} - x_{2,9}) \, d\xi \xrightarrow{\oplus} f^{(8)} \rightarrow \hat{f}_4$$

$$\int_{5}^{14} g_2 p^{(14)} \, ds = \int_0^1 g_2(x_{\delta_{20}}(\xi)) \Phi_3(\xi) (x_{2,14} - x_{2,8}) \, d\xi \xrightarrow{\oplus} f^{(14)} \rightarrow \hat{f}_4$$

MP

$\approx g_2(x_{\delta_{20}}(\frac{1}{2})) \Phi_3(\frac{1}{2}) (x_{2,14} - x_{2,5})$

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

FOR $e_2 \in E_{2,h}$ **DO**

FOR $\alpha \in A_{e_2} \subset A = \{1,2,3\}$ **DO**

BEGIN

* compute $f_\alpha^{(e_2)} := \int_{e_2} g_2(x) \varphi_\alpha^{(\Omega_2)}(x) \, ds = (*)$
* determine $i = i(r,\alpha) = i(e_2,\alpha)$
* update $\hat{f}_i := \hat{f}_i + f_\alpha^{(e_2)}$

END

END FOR

END FOR