(3) $b_{i,n}(u) = \binom{n}{i}(1-u)^{n-i}u^i$

za $n=3$:

$b_{i,3}(u) = \binom{3}{i}(1-u)^{3-i}u^i$

* baza f-je za Bernstein pol stupnja $n=3$:

$$\left.\begin{aligned} b_0(u) &= (1-u)^3 \\ b_1(u) &= 3u(1-u)^2 \\ b_2(u) &= 3u^2(1-u) \\ b_3(u) &= u^3 \end{aligned}\right\} \Rightarrow T(u) = (1-u)^3 p_0 + 3t(1-u)^2 p_1 + 3u^2(1-u)p_2 + u^3 p_3$$

$u \in [0,1]$ i $\quad r_i = (1-u)p_i + u p_{i+1}, \quad i = 0,1,2$

$\qquad s_i = (1-u)r_i + u r_{i+1}, \quad i = 0,1$

$\qquad t_0 = (1-u)s_0 + u s_1$

vrijedi $f(u) = t_0$

$$\begin{aligned} t_0 &= (1-u)s_0 + u s_1 = \\ &= (1-u)((1-u)r_0 + u r_1) + u((1-u)r_1 + u r_2) = \\ &= (1-u)^2 r_0 + 2u(1-u)r_1 + u^2 r_2 = \\ &= (1-u)^2((1-u)p_0 + u p_1) + 2u(1-u)((1-u)p_1 + p_2) + u^2((1-u)p_2 + u p_3) = \\ &= (1-u)^3 p_0 + 3u(1-u)^2 p_1 + 3u^2(1-u)p_2 + u^3 p_3 = T(u) \end{aligned}$$