	N^1	N^2	N^3
$[0,1)$	$N_0^1 = t$	$N_0^2 = \frac{1}{2}t^2$	$N_0^3 = \frac{1}{6}t^3$
$[1,2)$	$N_0^1 = 2-t$ $N_1^1 = t-1$	$N_0^2 = \frac{1}{2}+(2-t)+\frac{1}{2}(3-t)(t-1)$ $N_1^2 = \frac{1}{2}(t-1)^2$	$N_0^3 = -\frac{1}{2}t^3+2t^2-2t+\frac{2}{3}$ $N_1^3 = \frac{1}{6}t^3-\frac{1}{2}t^2+\frac{1}{2}t-\frac{1}{6}$
$[2,3)$	$N_1^1 = 3-t$ $N_2^1 = t-2$	$N_0^2 = \frac{1}{2}(3-t)^2$ $N_1^2 = \frac{1}{2}(t-1)(3-t)+\frac{1}{2}(4-t)(t-2)$ $N_2^2 = \frac{1}{2}(t-2)^2$	$N_0^3 = \frac{1}{2}t^3-4t^2+10t-\frac{22}{3}$ $N_1^3 = -\frac{1}{2}t^3+\frac{7}{2}t^2-\frac{15}{2}t+\frac{31}{6}$ $N_2^3 = \frac{1}{6}t^3-t^2+2t-\frac{4}{3}$
$[3,4)$	$N_2^1 = 4-t$ $N_3^1 = t-3$	$N_1^2 = \frac{1}{2}(4-t)^2$ $N_2^2 = \frac{1}{2}(t-2)(4-t)+\frac{1}{2}(5-t)(t-3)$ $N_3^2 = \frac{1}{2}(t-3)^2$	$N_0^3 = -\frac{1}{6}t^3+2t^2-8t+\frac{61}{6}$ $N_1^3 = \frac{1}{2}t^3-\frac{11}{2}t^2+\frac{39}{2}t-\frac{131}{6}$ $N_2^3 = -\frac{1}{2}t^3+5t^2-16t+\frac{506}{3}$ $N_3^3 = \frac{1}{6}t^3-\frac{3}{2}t^2+\frac{9}{2}t-\frac{9}{2}$
$[4,5)$	$N_3^1 = 5-t$ $N_4^1 = t-4$	$N_2^2 = \frac{1}{2}(5-t)^2$ $N_3^2 = \frac{1}{2}(t-3)(5-t)+\frac{1}{2}(6-t)(t-4)$ $N_4^2 = \frac{1}{2}(t-4)^2$	$N_1^3 = -\frac{1}{2}t^3+\frac{5}{2}t^2-\frac{25}{2}t+\frac{125}{6}$ $N_2^3 = \frac{1}{2}t^3-7t^2+32t-\frac{142}{3}$ $N_3^3 = -\frac{1}{2}t^3+\frac{13}{2}t^2-\frac{55}{2}t+\frac{229}{6}$ $N_4^3 = \frac{1}{6}t^3-2t^2+8t-\frac{32}{3}$
$[5,6)$	$N_4^1 = 6-t$ $N_5^1 = t-5$	$N_3^2 = \frac{1}{2}(6-t)^2$ $N_4^2 = \frac{1}{2}(t-4)(6-t)+\frac{1}{2}(7-t)(t-5)$ $N_5^2 = \frac{1}{2}(t-5)^2$	$N_2^3 = -\frac{1}{6}t^3+3t^2-18t+36$ $N_3^3 = \frac{1}{2}t^3-\frac{17}{2}t^2+\frac{95}{2}t-\frac{521}{6}$ $N_4^3 = -\frac{1}{2}t^3+8t^2-42t+\frac{218}{3}$
$[6,7)$	$N_5^1 = 7-t$ $N_6^1 = t-6$	$N_4^2 = \frac{1}{2}(7-t)^2$ $N_5^2 = \frac{1}{2}(t-5)(7-t)+\frac{1}{2}(8-t)(t-6)$	$N_3^3 = \frac{1}{6}t^3-\frac{7}{2}t^2+\frac{49}{2}t-\frac{343}{6}$ $N_4^3 = \frac{1}{2}t^3-10t^2+66t-\frac{430}{3}$
$[7,8)$	$N_6^1 = 8-t$	$N_5^2 = \frac{1}{2}(8-t)^2$	$N_4^3 = -\frac{1}{6}t^3+4t^2-32t+\frac{256}{3}$

k:1 $N_i^1 = (t-i)N_i^0 + (2+i-t)N_{i+1}^0 \quad t \in [i, i+2)$

k:2 $N_i^2 = \frac{1}{2}(t-i)N_i^1 + \frac{1}{2}(3+i-t)N_{i+1}^1 \quad t \in [i, i+3)$

k:3 $N_i^3 = \frac{1}{3}(t-i)N_i^2 + \frac{1}{3}(4+i-t)N_{i+1}^2 \quad t \in [i, i+4)$

Cubic base splines:

$N_0^3 = \frac{1}{3}tN_0^2 + \frac{1}{3}(4-t)N_1^2$

$N_1^3 = \frac{1}{3}(t-1)N_1^2 + \frac{1}{3}(5-t)N_2^2$

$N_2^3 = \frac{1}{3}(t-2)N_2^2 + \frac{1}{3}(6-t)N_3^2$

$N_3^3 = \frac{1}{3}(t-3)N_3^2 + \frac{1}{3}(7-t)N_4^2$