Calculating the Kaplan-Meier Estimator

Subject	Survival Time (tᵢ)	Number at Risk (nᵢ)	Deaths (dᵢ)	$\hat{S}(t)$
1	3.9	12	1	$11/12 = 0.92$
2	5.4	11	1	$11/12 \cdot 10/11 = 0.83$
3	7.9	10	1	$11/12 \cdot 10/11 \cdot 9/10 = 0.75$
4	10.5	9	1	$11/12 \cdot 10/11 \cdot 9/10 \cdot 8/9 = 0.67$
5	16.6+	8	0	$11/12 \cdot 10/11 \cdot 9/10 \cdot 8/9 \cdot 8/8 = 0.67$
6	16.9+	7	0	$11/12 \cdot 10/11 \cdot 9/10 \cdot 8/9 \cdot 8/8 \cdot 7/7 = 0.67$
7	17.1+	6	0	$11/12 \cdot 10/11 \cdot 9/10 \cdot 8/9 \cdot 8/8 \cdot 7/7 \cdot 6/6 = 0.67$
8	19.5	5	1	$11/12 \cdot 10/11 \cdot 9/10 \cdot 8/9 \cdot 8/8 \cdot 7/7 \cdot 6/6 \cdot 4/5 = 0.53$
9	23.8+	4	0	$11/12 \cdot 10/11 \cdot 9/10 \cdot 8/9 \cdot 8/8 \cdot 7/7 \cdot 6/6 \cdot 4/5$ $\cdot 4/4 = 0.53$
10, 11	33.7+, 33.7+	3	0	$11/12 \cdot 10/11 \cdot 9/10 \cdot 8/9 \cdot 8/8 \cdot 7/7 \cdot 6/6 \cdot 4/5$ $\cdot 4/4 \cdot 3/3 = 0.53$
12	40	1	1	$11/12 \cdot 10/11 \cdot 9/10 \cdot 8/9 \cdot 8/8 \cdot 7/7 \cdot 6/6 \cdot 4/5$ $\cdot 4/4 \cdot 3/3 \cdot 0/1 = 0$

Kaplan-Meier Estimate
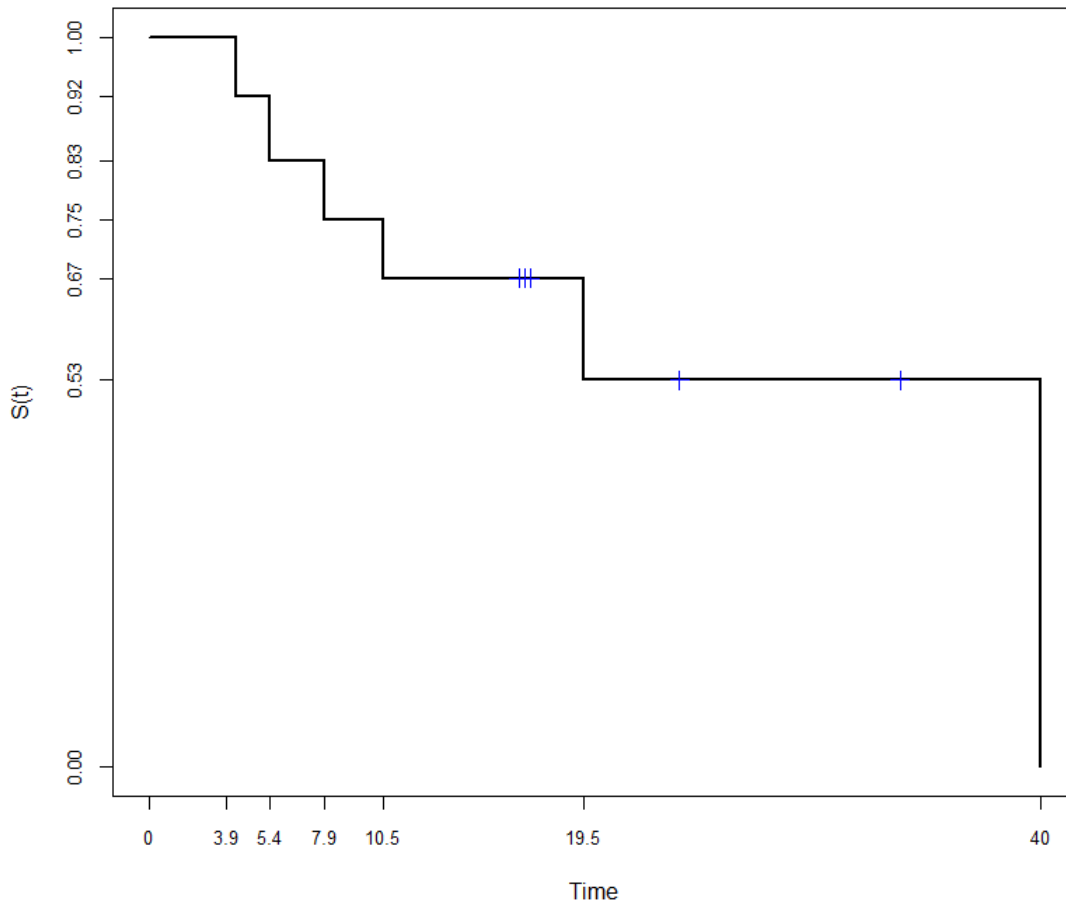
Calculating the Nelson-Aalen Estimator

Subject	Survival Time (t_i)	Number at Risk (n_i)	Deaths (d_i)	$\hat{S}(t)$	$\tilde{H}(t)$	$\tilde{S}(t)$
1	3.9	12	1	0.917	1/12 = 0.083	exp(-0.083) = 0.920
2	5.4	11	1	0.833	1/12 + 1/11 = 0.174	exp(-0.174) = 0.840
3	7.9	10	1	0.750	1/12 + 1/11 + 1/10 = 0.274	exp(-0.274) = 0.760
4	10.5	9	1	0.667	1/12 + 1/11 + 1/10 + 1/9 = 0.385	exp(-0.385) = 0.680
5	16.6+	8	0	0.667	1/12 + 1/11 + 1/10 + 1/9 + 0/8 =0.385	exp(-0.385) = 0.680
6	16.9+	7	0	0.667	0.385	0.680
7	17.1+	6	0	0.667	0.385	0.680
8	19.5	5	1	0.533	1/12 + 1/11 + 1/10 + 1/9 + 1/5= 0.585	exp(-0.585) = 0.557
9	23.8+	4	0	0.533	0.585	0.557
10	33.7+	3	0	0.533	0.585	0.557
11	33.7+	2	0	0.533	0.585	0.557
12	40	1	1	0	1/12 + 1/11 + 1/10 + 1/9 + 1/5 + 1/1 = 1.585	exp(-1.585) = 0.205

Kaplan-Meier and Nelson-Aalen Estimates