

t_i	n_i	d_i	C_i	$\hat{\lambda}_i$	$\hat{S}(t)$
1	10	1	0	0.1	$1 \times (1 - 0.1) = 0.9$
2	9	2	0	0.22	$0.9 \times (1 - 0.22) = 0.7$
4	7	0	1	0	$0.7 \times (1 - 0) = 0.7$
5	6	0	1	0	$0.7 \times (1 - 0) = 0.7$
6	5	1	0	0.2	$0.7 \times (1 - 0.2) = 0.56$
7	4	0	1	0	$0.56 \times (1 - 0) = 0.56$
8	3	0	1	0	0.56
9	2	0	1	0	0.56
10	1	0	1	0	0.56

$\hat{H}(t) = -\log \hat{S}(t)$	$\hat{H}(t) = \sum d_i/n_i$	$\exp\{-\hat{H}(t)\}$
0.045	0.1	0.904
0.15	$0.1 + 0.22 = 0.32$	0.726
0.15	0.32	0.726
0.15	0.32	0.726
0.25	0.52	0.595
0.25	0.52	0.595
0.25	0.52	0.595
0.25	0.52	0.595
0.25	0.52	0.595

$$h(x) = \frac{2x}{(1+x^2)^2}$$

$$H(x) = \int_0^x h(t) dt$$

$$= \ln(1+x^2)$$

$$S(x) = \text{Survival function}$$

$$= \exp\{-H(x)\}$$

$$= \frac{1}{1+x^2}$$

$$F(x) = \text{Cumulative Density Function}$$

$$= 1 - S(x)$$

$$= 1 - \frac{1}{1+x^2}$$

$$f(x) = \text{Probability Density Function}$$

$$= \frac{d}{dx} F(x)$$

$$= \frac{2x}{(1+x^2)^2}$$

t_i	n_i	d_i	C_i	$\hat{\lambda}_i$	$\hat{S}(t)$	$\hat{H}(t) = -\log \hat{S}(t)$	$\tilde{H}(t) = \sum d_i / n_i$	$\exp\{-\tilde{H}(t)\}$
1	10	1	0	0.1	$1 \times (1 - 0.1) = 0.9$	0.045	0.1	0.904
2	9	2	0	0.22	$0.9 \times (1 - 0.22) = 0.7$	0.15	$0.1 + 0.22 = 0.32$	0.726
4	7	0	1	0	$0.7 \times (1 - 0) = 0.7$	0.15	0.32	0.726
5	6	0	1	0	$0.7 \times (1 - 0) = 0.7$	0.15	0.32	0.726
6	5	1	0	0.2	$0.7 \times (1 - 0.2) = 0.56$	0.25	0.52	0.595
7	4	0	1	0	$0.56 \times (1 - 0) = 0.56$	0.25	0.52	0.595
8	3	0	1	0	0.56	0.25	0.52	0.595
9	2	0	1	0	0.56	0.25	0.52	0.595
10	1	0	1	0	0.56	0.25	0.52	0.595