

# WS #16 - Log-Rank test

Math 150, Jo Hardin

Monday, March 23, 2026

Your Name: \_\_\_\_\_

Names of people you worked with: \_\_\_\_\_

What do you love about your major?

**Task:** Consider the chip melting data. Fill out the rest of the rows of Table 9.5 from your text.

Group 1 (milk chocolate)	35 <sup>+</sup>	30	60 <sup>+</sup>	45	25	55	30 <sup>+</sup>		
Group 2 (white chocolate)	45 <sup>+</sup>	35	48	64 <sup>+</sup>	72	42	55 <sup>+</sup>	43	62

time interval	$n_j$	number censored	$d_j$	$d_{1j}$	$d_j/n_j$	$n_{1j}$	$n_{2j}$	$E_{1j}$	$V_{1j}$
[25, 30)	16	0	1	1	1/16	7	9	7/16	0.246
[30, 35)	15	1	1	1	1/15	6	9	6/15	0.240
[35, 42)	13	1	1	0	1/13	4	9	4/13	0.213
[42, 43)	11	0	1	0	1/11	3	8	3/11	0.198
[43, 45)	10	0	1	0	1/10	3	7	3/10	0.210
[45, 48)	9	1	1	1	1/9	3	6	3/9	0.222
[48, 55)									
[55, 62)									
[62, 72)								0	0
[72, 72)								0	0

**Solution:**

time interval	$n_j$	number censored	$d_j$	$d_{1j}$	$d_j/n_j$	$n_{1j}$	$n_{2j}$	$E_{1j}$	$V_{1j}$
[25, 30)	16	0	1	1	1/16	7	9	7/16	0.246
[30, 35)	15	1	1	1	1/15	6	9	6/15	0.240
[35, 42)	13	1	1	0	1/13	4	9	4/13	0.213
[42, 43)	11	0	1	0	1/11	3	8	3/11	0.198
[43, 45)	10	0	1	0	1/10	3	7	3/10	0.210
[45, 48)	9	1	1	1	1/9	3	6	3/9	0.222
[48, 55)	7	0	1	0	1/7	2	5	2/7	0.204
[55, 62)	6	2	1	1	1/6	2	4	2/6	0.222
[62, 72)	3	1	1	0	1/3	0	3	0	0
[72, 72)	1	0	1	0	1/1	0	1	0	0