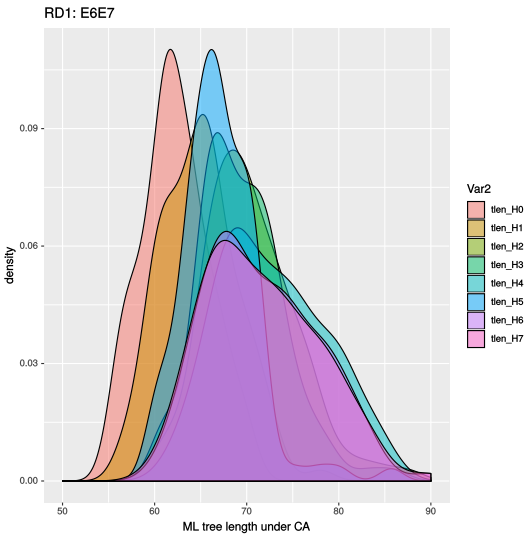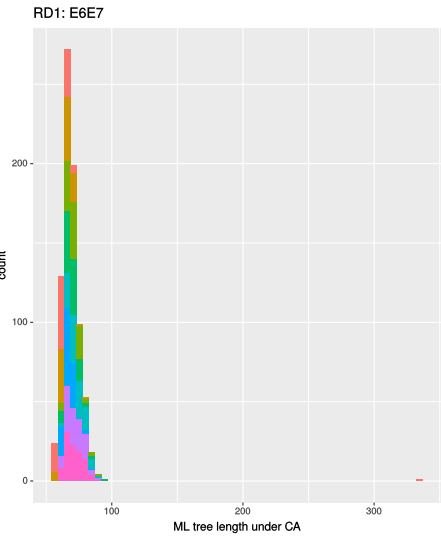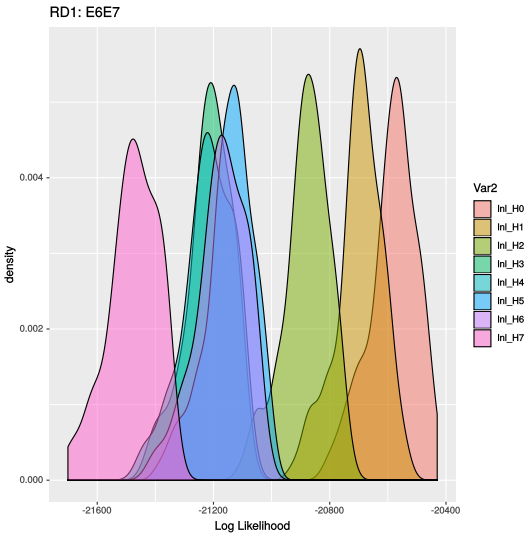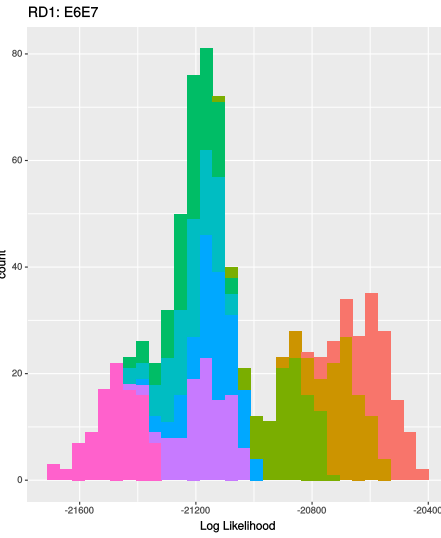# Random Permutation Test
Reduced Dataset 1: E6E7

H0: (gray-blue-yellow-red-black-green)
H1: gray+(blue-yellow-red-black-green)
H2: gray+blue+(yellow-red-black-green)
H3: gray+blue+yellow+(red-black-green)
H4: gray+blue+yellow+red+(black-green)
H5: gray+blue+(red-black)+(green-yellow)
H6: gray+blue+red+black+(green-yellow)
H7: gray+blue+yellow+red+black+green

RD1: E6E7

Kruskal-Wallis rank sum test on ML tree length
chi-squared = 276.65, df = 7, p-value < 2.2e-16

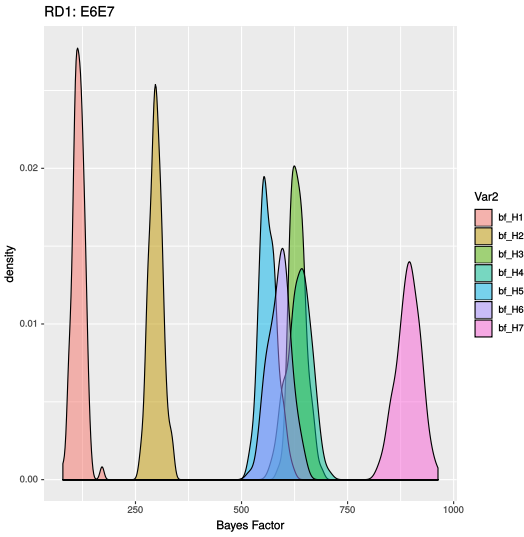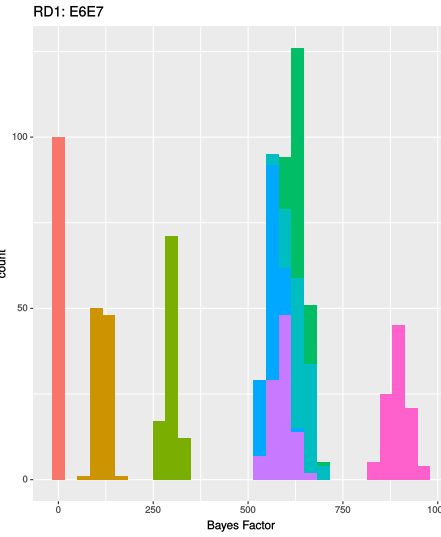**Multiple comparison test after Kruskal-Wallis**
p.value: 0.05

	obs.dif	critical.dif	difference
tlen_H0-tlen_H1	93.73	102.0845	FALSE
tlen_H0-tlen_H2	330.76	102.0845	TRUE
tlen_H0-tlen_H3	296.09	102.0845	TRUE
tlen_H0-tlen_H4	405.87	102.0845	TRUE
tlen_H0-tlen_H5	187.34	102.0845	TRUE
tlen_H0-tlen_H6	361.87	102.0845	TRUE
tlen_H0-tlen_H7	357.54	102.0845	TRUE

Kruskal-Wallis rank sum test on the Log Likelihood
chi-squared = 694.21, df = 7, p-value < 2.2e-16

Multiple comparison test after Kruskal-Wallis
p.value: 0.05

	obs.dif	critical.dif	difference
lnl_H0-lnl_H1	74.62	102.0845	FALSE
lnl_H0-lnl_H2	180.52	102.0845	TRUE
lnl_H0-lnl_H3	474.95	102.0845	TRUE
lnl_H0-lnl_H4	476.26	102.0845	TRUE
lnl_H0-lnl_H5	376.31	102.0845	TRUE
lnl_H0-lnl_H6	412.88	102.0845	TRUE
lnl_H0-lnl_H7	680.70	102.0845	TRUE

Kruskal-Wallis rank sum test on the ΔBF
chi-squared = 646.23, df = 6, p-value < 2.2e-16

Multiple comparison test after Kruskal-Wallis
p.value: 0.05

	obs.dif	critical.dif	difference
bf_H1-bf_H2	100.00	86.8822	TRUE
bf_H1-bf_H3	435.21	86.8822	TRUE
bf_H1-bf_H4	442.02	86.8822	TRUE
bf_H1-bf_H5	223.84	86.8822	TRUE
bf_H1-bf_H6	298.93	86.8822	TRUE
bf_H1-bf_H7	600.00	86.8822	TRUE
bf_H2-bf_H3	335.21	86.8822	TRUE
bf_H2-bf_H4	342.02	86.8822	TRUE
bf_H2-bf_H5	123.84	86.8822	TRUE
bf_H2-bf_H6	198.93	86.8822	TRUE
bf_H2-bf_H7	500.00	86.8822	TRUE
bf_H3-bf_H4	6.81	86.8822	FALSE
bf_H3-bf_H5	211.37	86.8822	TRUE
bf_H3-bf_H6	136.28	86.8822	TRUE
bf_H3-bf_H7	164.79	86.8822	TRUE
bf_H4-bf_H5	218.18	86.8822	TRUE
bf_H4-bf_H6	143.09	86.8822	TRUE
bf_H4-bf_H7	157.98	86.8822	TRUE
bf_H5-bf_H6	75.09	86.8822	FALSE
bf_H5-bf_H7	376.16	86.8822	TRUE
bf_H6-bf_H7	301.07	86.8822	TRUE