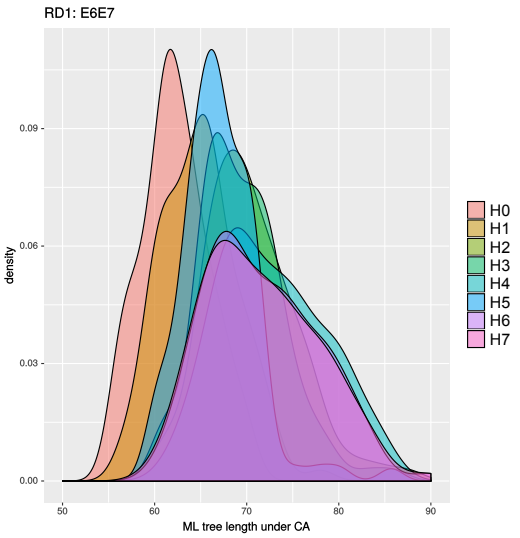
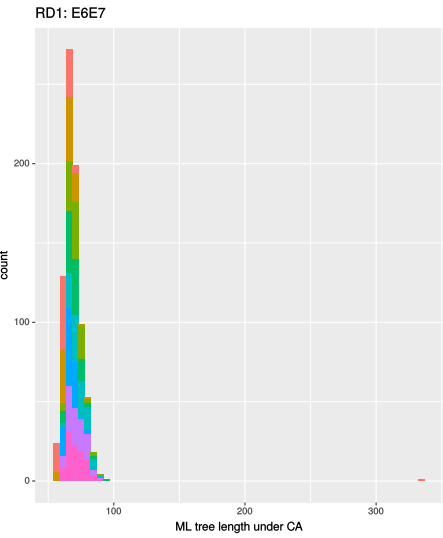


Random Permutation Test

Reduced Dataset 1: E6E7

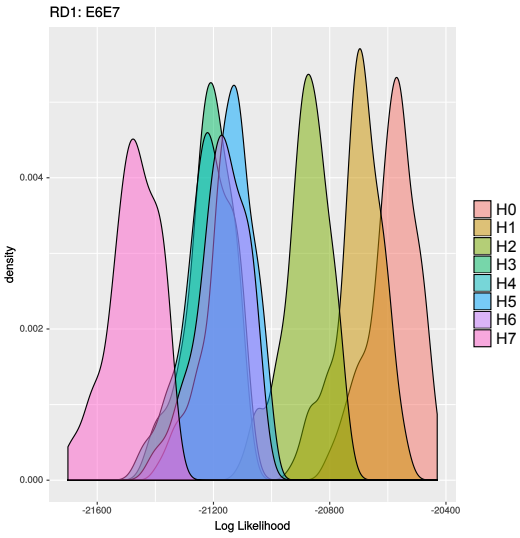
- H0: (gray-blue-yellow-red-black-green)
- H1: gray+(blue-yellow-red-black-green)
- H2: gray+blue+(yellow-red-black-green)
- H3: gray+blue+yellow+(red-black-green)
- H4: gray+blue+yellow+red+(black-green)
- H5: gray+blue+(red-black)+(green-yellow)
- H6: gray+blue+red+black+(green-yellow)
- H7: gray+blue+yellow+red+black+green



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

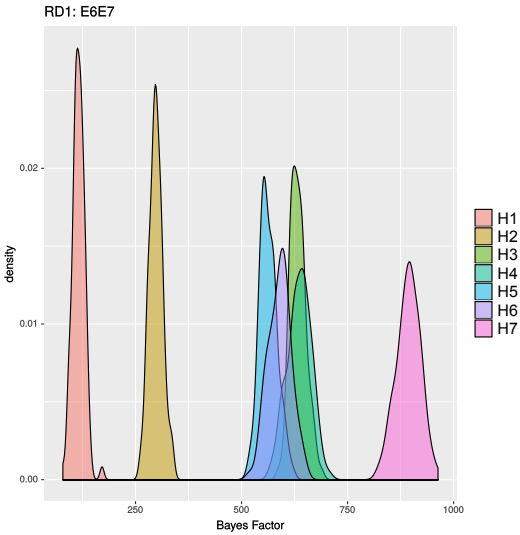
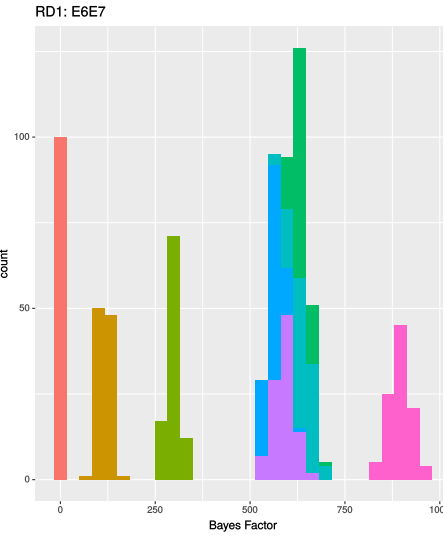
	obs.dif	critical.dif	difference
tlen_H0-tlen_H1	93.73	102.0845	FALSE
tlen_H0-tlen_H2	330.76	102.0845	TRUE
tlen_H0-tlen_H3	296.09	102.0845	TRUE
tlen_H0-tlen_H4	405.87	102.0845	TRUE
tlen_H0-tlen_H5	187.34	102.0845	TRUE
tlen_H0-tlen_H6	361.87	102.0845	TRUE
tlen_H0-tlen_H7	357.54	102.0845	TRUE



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

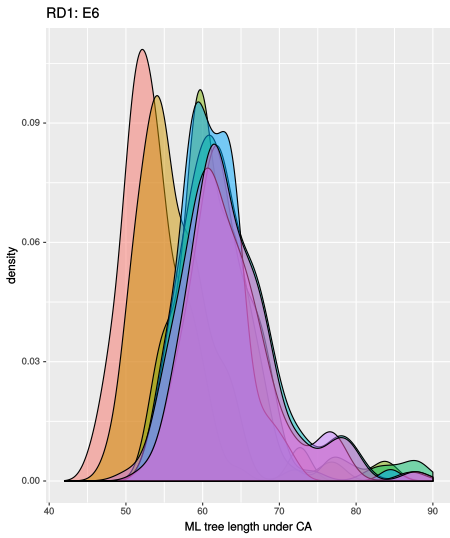
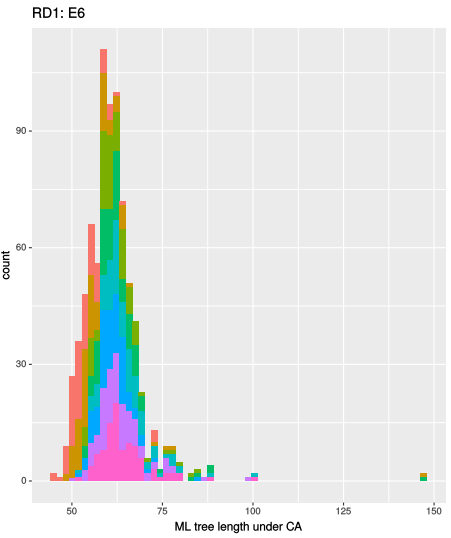
Multiple comparison test after Kruskal-Wallis
p.value: 0.05

	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

Random Permutation Test

Reduced Dataset 1: E6

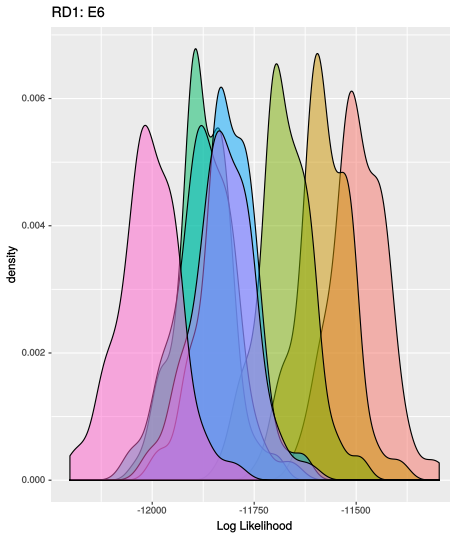
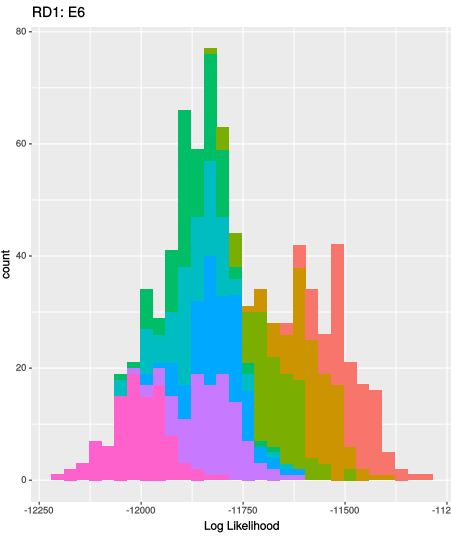
- H0: (gray-blue-yellow-red-black-green)
- H1: gray+(blue-yellow-red-black-green)
- H2: gray+blue+(yellow-red-black-green)
- H3: gray+blue+yellow+(red-black-green)
- H4: gray+blue+yellow+red+(black-green)
- H5: gray+blue+(red-black)+(green-yellow)
- H6: gray+blue+red+black+(green-yellow)
- H7: gray+blue+yellow+red+black+green



Kruskal-Wallis rank sum test on ML tree length
chi-squared = 267.71, df = 7, p-value < 2.2e-16

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

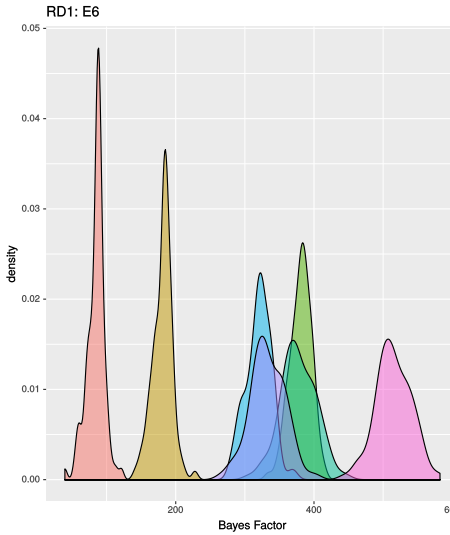
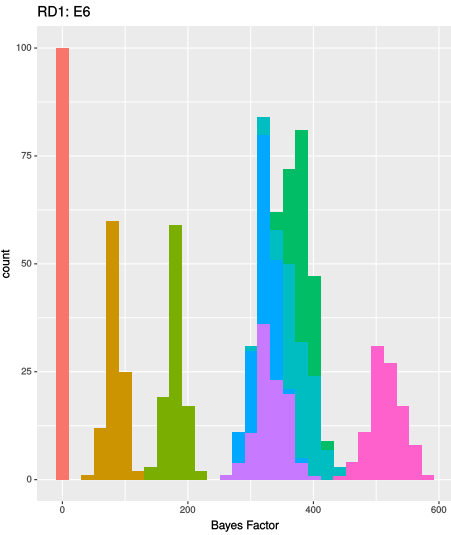
	obs.dif	critical.dif	difference
tlen_H0-tlen_H1	81.97	102.0845	FALSE
tlen_H0-tlen_H2	293.32	102.0845	TRUE
tlen_H0-tlen_H3	322.51	102.0845	TRUE
tlen_H0-tlen_H4	390.28	102.0845	TRUE
tlen_H0-tlen_H5	286.30	102.0845	TRUE
tlen_H0-tlen_H6	341.05	102.0845	TRUE
tlen_H0-tlen_H7	380.17	102.0845	TRUE



Kruskal-Wallis rank sum test on the Log Likelihood
chi-squared = 657.55, 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	77.79	102.0845	FALSE
lnl_H0-lnl_H2	179.79	102.0845	TRUE
lnl_H0-lnl_H3	483.00	102.0845	TRUE
lnl_H0-lnl_H4	473.91	102.0845	TRUE
lnl_H0-lnl_H5	373.19	102.0845	TRUE
lnl_H0-lnl_H6	396.07	102.0845	TRUE
lnl_H0-lnl_H7	655.13	102.0845	TRUE



Kruskal-Wallis rank sum test on the Δ BF
chi-squared = 644.87, df = 6, p-value < 2.2e-16

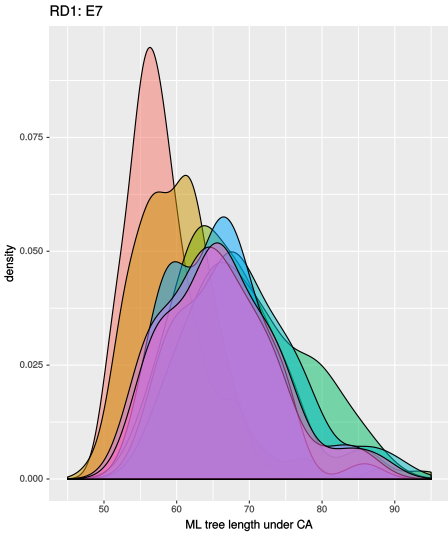
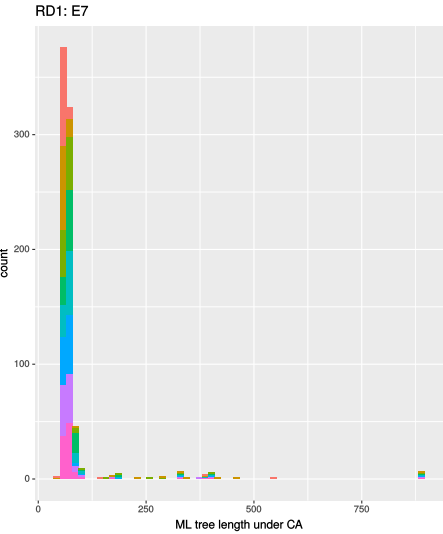
Multiple comparison test after Kruskal-Wallis
p.value: 0.05

	obs.dif	critical.dif	difference
bf_H1-bf_H2	100.00	86.8822	TRUE
bf_H1-bf_H3	449.43	86.8822	TRUE
bf_H1-bf_H4	431.25	86.8822	TRUE
bf_H1-bf_H5	238.54	86.8822	TRUE
bf_H1-bf_H6	280.79	86.8822	TRUE
bf_H1-bf_H7	599.99	86.8822	TRUE
bf_H2-bf_H3	349.43	86.8822	TRUE
bf_H2-bf_H4	331.25	86.8822	TRUE
bf_H2-bf_H5	138.54	86.8822	TRUE
bf_H2-bf_H6	180.79	86.8822	TRUE
bf_H2-bf_H7	499.99	86.8822	TRUE
bf_H3-bf_H4	18.18	86.8822	FALSE
bf_H3-bf_H5	210.89	86.8822	TRUE
bf_H3-bf_H6	168.64	86.8822	TRUE
bf_H3-bf_H7	150.56	86.8822	TRUE
bf_H4-bf_H5	192.71	86.8822	TRUE
bf_H4-bf_H6	150.46	86.8822	TRUE
bf_H4-bf_H7	168.74	86.8822	TRUE
bf_H5-bf_H6	42.25	86.8822	FALSE
bf_H5-bf_H7	361.45	86.8822	TRUE
bf_H6-bf_H7	319.20	86.8822	TRUE

Random Permutation Test

Reduced Dataset 1: E7

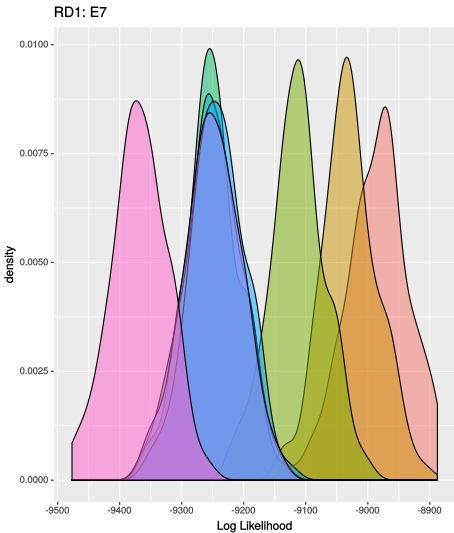
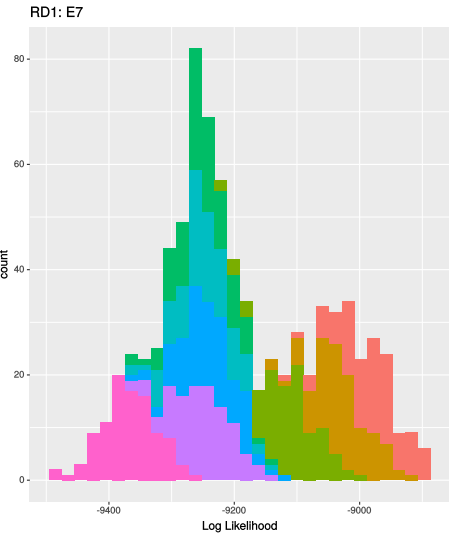
- H0: (gray-blue-yellow-red-black-green)
- H1: gray+(blue-yellow-red-black-green)
- H2: gray+blue+(yellow-red-black-green)
- H3: gray+blue+yellow+(red-black-green)
- H4: gray+blue+yellow+red+(black-green)
- H5: gray+blue+(red-black)+(green-yellow)
- H6: gray+blue+red+black+(green-yellow)
- H7: gray+blue+yellow+red+black+green



Kruskal-Wallis rank sum test on ML tree length
chi-squared = 165.86, df = 7, p-value < 2.2e-16

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

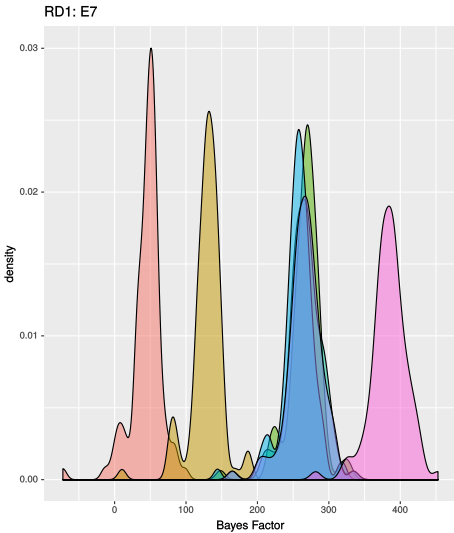
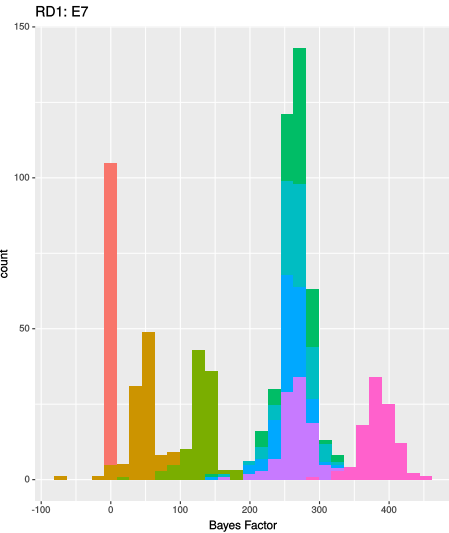
	obs.dif	critical.dif	difference
tlen_H0-tlen_H1	97.52	102.0845	FALSE
tlen_H0-tlen_H2	269.31	102.0845	TRUE
tlen_H0-tlen_H3	335.53	102.0845	TRUE
tlen_H0-tlen_H4	308.82	102.0845	TRUE
tlen_H0-tlen_H5	227.26	102.0845	TRUE
tlen_H0-tlen_H6	234.92	102.0845	TRUE
tlen_H0-tlen_H7	256.56	102.0845	TRUE



Kruskal-Wallis rank sum test on the Log Likelihood
chi-squared = 665.11, 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	57.17	102.0845	FALSE
lnl_H0-lnl_H2	167.52	102.0845	TRUE
lnl_H0-lnl_H3	431.76	102.0845	TRUE
lnl_H0-lnl_H4	429.51	102.0845	TRUE
lnl_H0-lnl_H5	406.16	102.0845	TRUE
lnl_H0-lnl_H6	428.60	102.0845	TRUE
lnl_H0-lnl_H7	661.76	102.0845	TRUE



Kruskal-Wallis rank sum test on the ΔBF
chi-squared = 565.76, df = 6, p-value < 2.2e-16

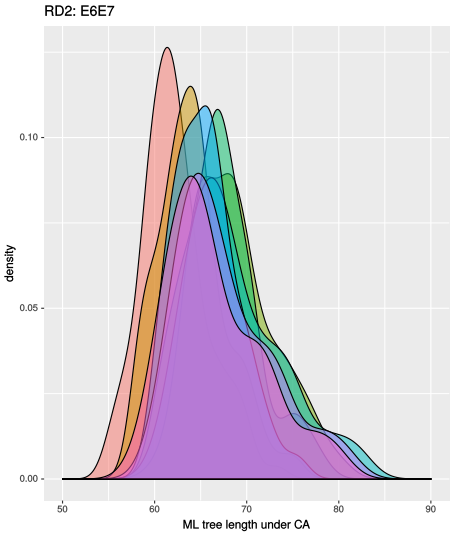
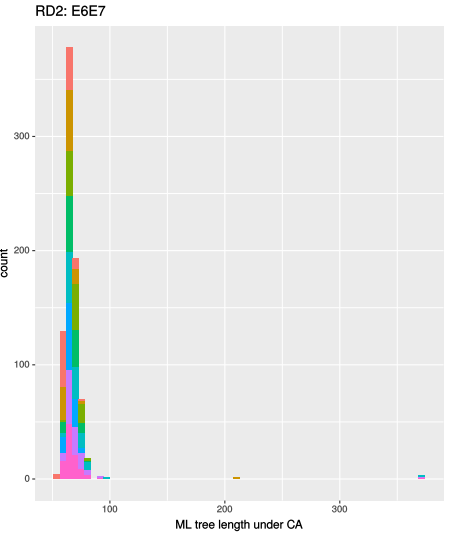
Multiple comparison test after Kruskal-Wallis
p.value: 0.05

	obs.dif	critical.dif	difference
bf_H1-bf_H2	98.05	86.8822	TRUE
bf_H1-bf_H3	368.34	86.8822	TRUE
bf_H1-bf_H4	358.75	86.8822	TRUE
bf_H1-bf_H5	309.04	86.8822	TRUE
bf_H1-bf_H6	359.78	86.8822	TRUE
bf_H1-bf_H7	597.99	86.8822	TRUE
bf_H2-bf_H3	270.29	86.8822	TRUE
bf_H2-bf_H4	260.70	86.8822	TRUE
bf_H2-bf_H5	210.99	86.8822	TRUE
bf_H2-bf_H6	261.73	86.8822	TRUE
bf_H2-bf_H7	499.94	86.8822	TRUE
bf_H3-bf_H4	9.59	86.8822	FALSE
bf_H3-bf_H5	59.30	86.8822	FALSE
bf_H3-bf_H6	8.56	86.8822	FALSE
bf_H3-bf_H7	229.65	86.8822	TRUE
bf_H4-bf_H5	49.71	86.8822	FALSE
bf_H4-bf_H6	1.03	86.8822	FALSE
bf_H4-bf_H7	239.24	86.8822	TRUE
bf_H5-bf_H6	50.74	86.8822	FALSE
bf_H5-bf_H7	288.95	86.8822	TRUE
bf_H6-bf_H7	238.21	86.8822	TRUE

Random Permutation Test

Reduced Dataset 2: E6E7

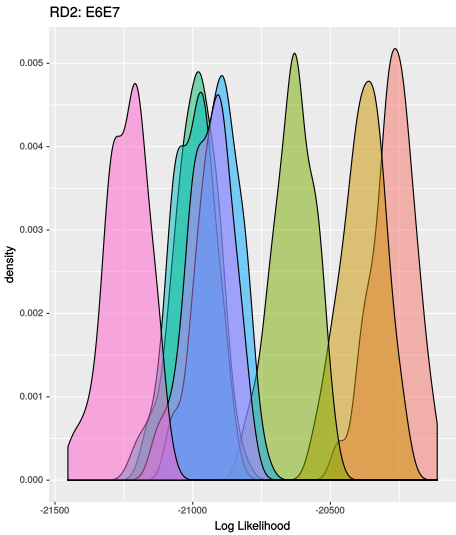
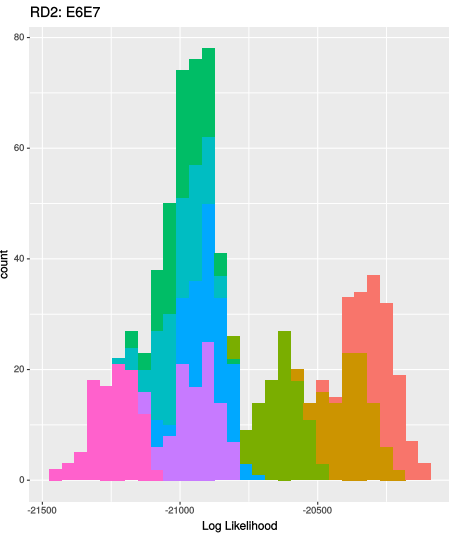
- H0: (gray-blue-yellow-red-black-green)
- H1: gray+(blue-yellow-red-black-green)
- H2: gray+blue+(yellow-red-black-green)
- H3: gray+blue+yellow+(red-black-green)
- H4: gray+blue+yellow+red+(black-green)
- H5: gray+blue+(red-black)+(green-yellow)
- H6: gray+blue+red+black+(green-yellow)
- H7: gray+blue+yellow+red+black+green



Kruskal-Wallis rank sum test on ML tree length
chi-squared = 167.42, df = 7, p-value < 2.2e-16

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

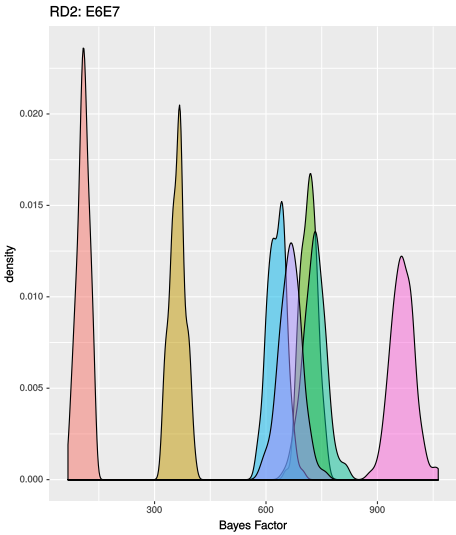
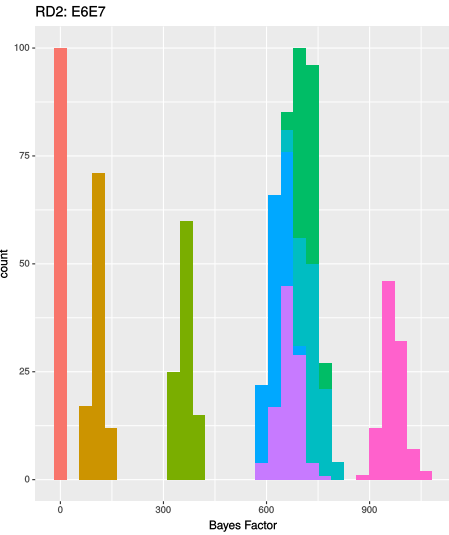
	obs.dif	critical.dif	difference
tlen_H0-tlen_H1	101.57	102.0845	FALSE
tlen_H0-tlen_H2	328.90	102.0845	TRUE
tlen_H0-tlen_H3	263.70	102.0845	TRUE
tlen_H0-tlen_H4	320.92	102.0845	TRUE
tlen_H0-tlen_H5	180.01	102.0845	TRUE
tlen_H0-tlen_H6	267.30	102.0845	TRUE
tlen_H0-tlen_H7	216.08	102.0845	TRUE



Kruskal-Wallis rank sum test on the Log Likelihood
chi-squared = 705.72, 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	68.72	102.0845	FALSE
lnl_H0-lnl_H2	183.82	102.0845	TRUE
lnl_H0-lnl_H3	475.45	102.0845	TRUE
lnl_H0-lnl_H4	494.20	102.0845	TRUE
lnl_H0-lnl_H5	360.52	102.0845	TRUE
lnl_H0-lnl_H6	407.66	102.0845	TRUE
lnl_H0-lnl_H7	681.23	102.0845	TRUE



Kruskal-Wallis rank sum test on the ΔBF
chi-squared = 654.07, df = 6, p-value < 2.2e-16

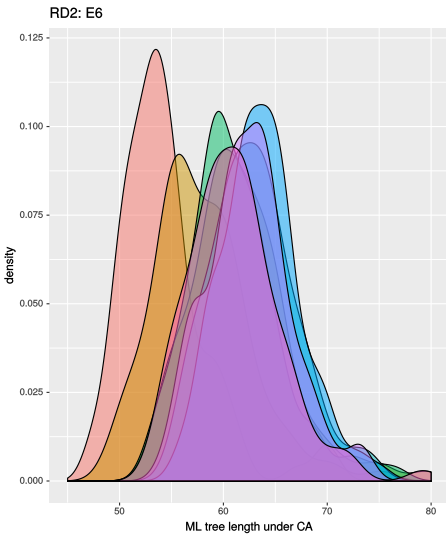
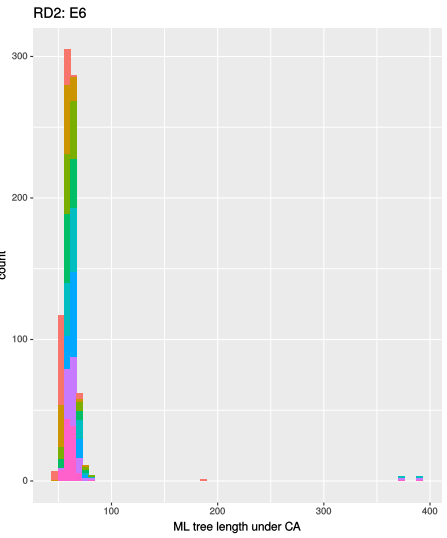
Multiple comparison test after Kruskal-Wallis
p.value: 0.05

	obs.dif	critical.dif	difference
bf_H1-bf_H2	100.00	86.8822	TRUE
bf_H1-bf_H3	423.75	86.8822	TRUE
bf_H1-bf_H4	459.52	86.8822	TRUE
bf_H1-bf_H5	218.17	86.8822	TRUE
bf_H1-bf_H6	298.56	86.8822	TRUE
bf_H1-bf_H7	600.00	86.8822	TRUE
bf_H2-bf_H3	323.75	86.8822	TRUE
bf_H2-bf_H4	359.52	86.8822	TRUE
bf_H2-bf_H5	118.17	86.8822	TRUE
bf_H2-bf_H6	198.56	86.8822	TRUE
bf_H2-bf_H7	500.00	86.8822	TRUE
bf_H3-bf_H4	35.77	86.8822	FALSE
bf_H3-bf_H5	205.58	86.8822	TRUE
bf_H3-bf_H6	125.19	86.8822	TRUE
bf_H3-bf_H7	176.25	86.8822	TRUE
bf_H4-bf_H5	241.35	86.8822	TRUE
bf_H4-bf_H6	160.96	86.8822	TRUE
bf_H4-bf_H7	140.48	86.8822	TRUE
bf_H5-bf_H6	80.39	86.8822	FALSE
bf_H5-bf_H7	381.83	86.8822	TRUE
bf_H6-bf_H7	301.44	86.8822	TRUE

Random Permutation Test

Reduced Dataset 2: E6

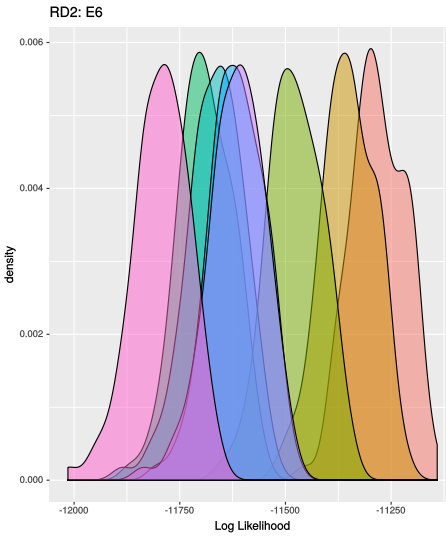
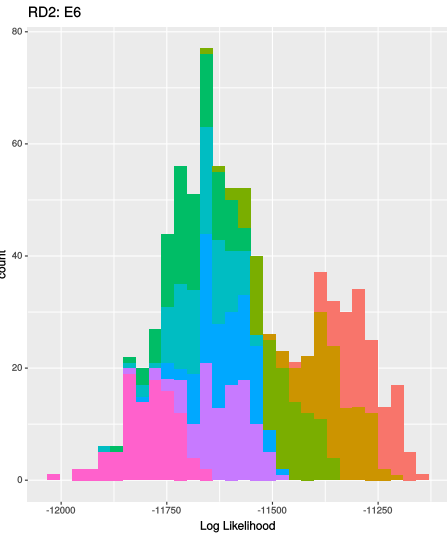
- H0: (gray-blue-yellow-red-black-green)
- H1: gray+(blue-yellow-red-black-green)
- H2: gray+blue+(yellow-red-black-green)
- H3: gray+blue+yellow+(red-black-green)
- H4: gray+blue+yellow+red+(black-green)
- H5: gray+blue+(red-black)+(green-yellow)
- H6: gray+blue+red+black+(green-yellow)
- H7: gray+blue+yellow+red+black+green



Kruskal-Wallis rank sum test on ML tree length
chi-squared = 245.99, df = 7, p-value < 2.2e-16

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

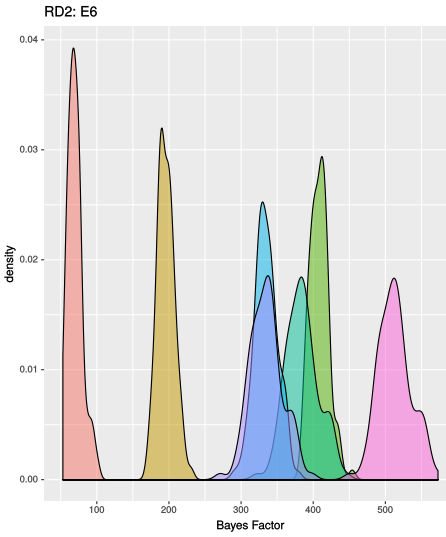
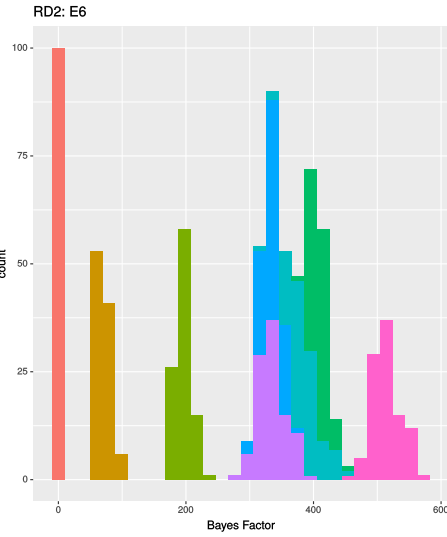
	obs.dif	critical.dif	difference
tlen_H0-tlen_H1	127.82	102.0845	TRUE
tlen_H0-tlen_H2	298.49	102.0845	TRUE
tlen_H0-tlen_H3	272.81	102.0845	TRUE
tlen_H0-tlen_H4	376.16	102.0845	TRUE
tlen_H0-tlen_H5	404.37	102.0845	TRUE
tlen_H0-tlen_H6	359.76	102.0845	TRUE
tlen_H0-tlen_H7	284.35	102.0845	TRUE



Kruskal-Wallis rank sum test on the Log Likelihood
chi-squared = 672.47, 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	62.68	102.0845	FALSE
lnl_H0-lnl_H2	181.64	102.0845	TRUE
lnl_H0-lnl_H3	508.34	102.0845	TRUE
lnl_H0-lnl_H4	464.06	102.0845	TRUE
lnl_H0-lnl_H5	373.04	102.0845	TRUE
lnl_H0-lnl_H6	373.03	102.0845	TRUE
lnl_H0-lnl_H7	651.45	102.0845	TRUE



Kruskal-Wallis rank sum test on the ΔBF
chi-squared = 658.24, df = 6, p-value < 2.2e-16

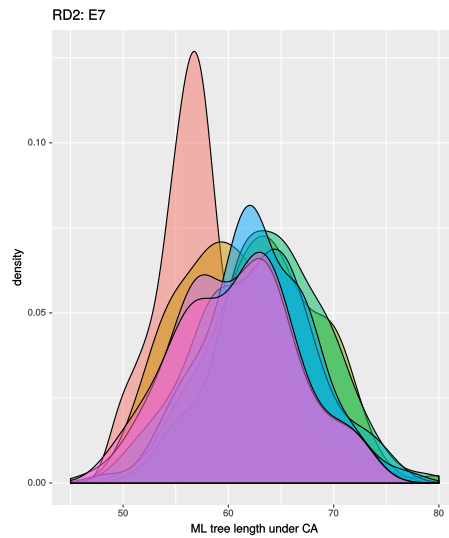
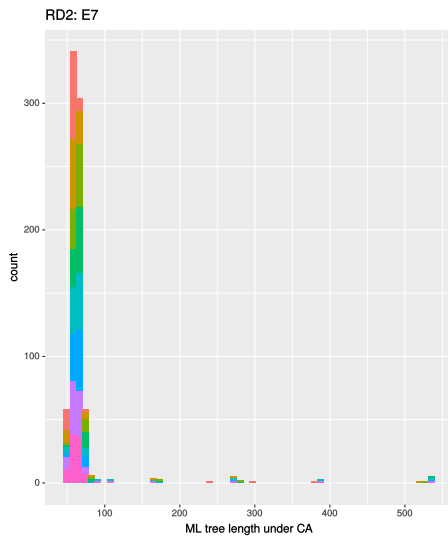
Multiple comparison test after Kruskal-Wallis
p.value: 0.05

	obs.dif	critical.dif	difference
bf_H1-bf_H2	100.00	86.8822	TRUE
bf_H1-bf_H3	481.73	86.8822	TRUE
bf_H1-bf_H4	409.48	86.8822	TRUE
bf_H1-bf_H5	253.42	86.8822	TRUE
bf_H1-bf_H6	255.38	86.8822	TRUE
bf_H1-bf_H7	599.99	86.8822	TRUE
bf_H2-bf_H3	381.73	86.8822	TRUE
bf_H2-bf_H4	309.48	86.8822	TRUE
bf_H2-bf_H5	153.42	86.8822	TRUE
bf_H2-bf_H6	155.38	86.8822	TRUE
bf_H2-bf_H7	499.99	86.8822	TRUE
bf_H3-bf_H4	72.25	86.8822	FALSE
bf_H3-bf_H5	228.31	86.8822	TRUE
bf_H3-bf_H6	226.35	86.8822	TRUE
bf_H3-bf_H7	118.26	86.8822	TRUE
bf_H4-bf_H5	156.06	86.8822	TRUE
bf_H4-bf_H6	154.10	86.8822	TRUE
bf_H4-bf_H7	190.51	86.8822	TRUE
bf_H5-bf_H6	1.96	86.8822	FALSE
bf_H5-bf_H7	346.57	86.8822	TRUE
bf_H6-bf_H7	344.61	86.8822	TRUE

Random Permutation Test

Reduced Dataset 2: E7

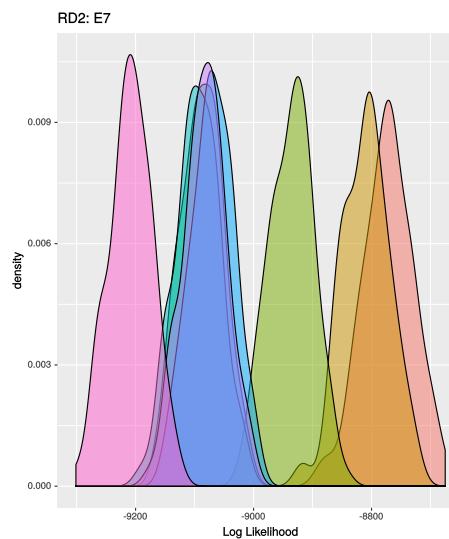
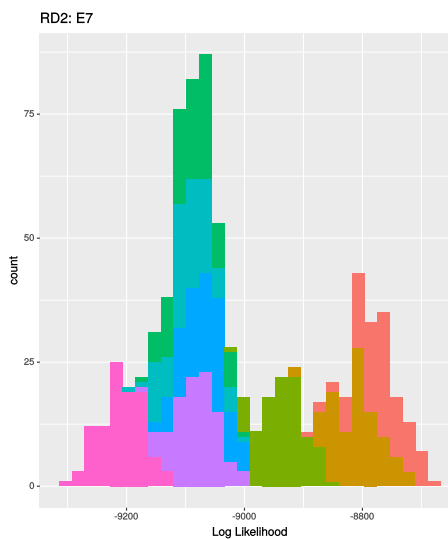
H0: (gray-blue-yellow-red-black-green)
H1: gray+(blue-yellow-red-black-green)
H2: gray+blue+(yellow-red-black-green)
H3: gray+blue+yellow+(red-black-green)
H4: gray+blue+yellow+red+(black-green)
H5: gray+blue+(red-black)+(green-yellow)
H6: gray+blue+red+black+(green-yellow)
H7: gray+blue+yellow+red+black+green



Kruskal-Wallis rank sum test on ML tree length
chi-squared = 110.41, df = 7, p-value < 2.2e-16

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

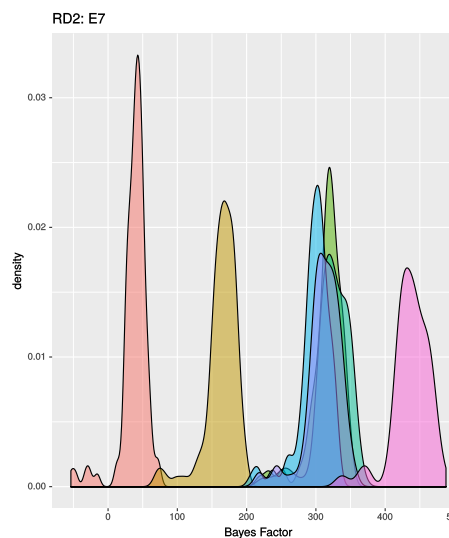
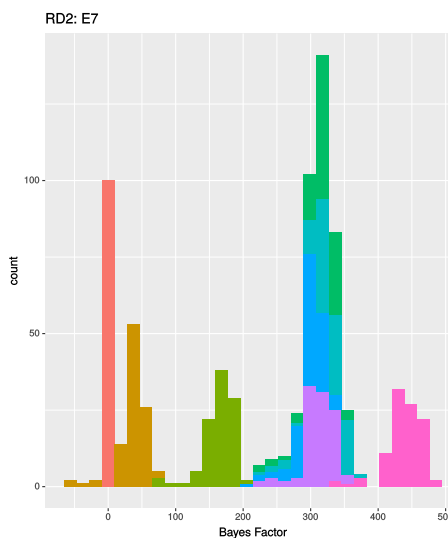
	obs.dif	critical.dif	difference
tlen_H0-tlen_H1	100.82	102.0845	FALSE
tlen_H0-tlen_H2	258.38	102.0845	TRUE
tlen_H0-tlen_H3	278.32	102.0845	TRUE
tlen_H0-tlen_H4	220.37	102.0845	TRUE
tlen_H0-tlen_H5	224.17	102.0845	TRUE
tlen_H0-tlen_H6	154.42	102.0845	TRUE
tlen_H0-tlen_H7	157.36	102.0845	TRUE



Kruskal-Wallis rank sum test on the Log Likelihood
chi-squared = 688.43, 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	49.38	102.0845	FALSE
lnl_H0-lnl_H2	173.36	102.0845	TRUE
lnl_H0-lnl_H3	436.45	102.0845	TRUE
lnl_H0-lnl_H4	459.10	102.0845	TRUE
lnl_H0-lnl_H5	381.42	102.0845	TRUE
lnl_H0-lnl_H6	421.58	102.0845	TRUE
lnl_H0-lnl_H7	671.59	102.0845	TRUE



Kruskal-Wallis rank sum test on the Δ BF
chi-squared = 565.76, 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	99.96	86.8822	TRUE
bf_H1-bf_H3	373.27	86.8822	TRUE
bf_H1-bf_H4	410.86	86.8822	TRUE
bf_H1-bf_H5	271.96	86.8822	TRUE
bf_H1-bf_H6	344.92	86.8822	TRUE
bf_H1-bf_H7	598.89	86.8822	TRUE
bf_H2-bf_H3	273.31	86.8822	TRUE
bf_H2-bf_H4	310.90	86.8822	TRUE
bf_H2-bf_H5	172.00	86.8822	TRUE
bf_H2-bf_H6	244.96	86.8822	TRUE
bf_H2-bf_H7	498.93	86.8822	TRUE
bf_H3-bf_H4	37.59	86.8822	FALSE
bf_H3-bf_H5	101.31	86.8822	TRUE
bf_H3-bf_H6	28.35	86.8822	FALSE
bf_H3-bf_H7	225.62	86.8822	TRUE
bf_H4-bf_H5	138.90	86.8822	TRUE
bf_H4-bf_H6	65.94	86.8822	FALSE
bf_H4-bf_H7	188.03	86.8822	TRUE
bf_H5-bf_H6	72.96	86.8822	FALSE
bf_H5-bf_H7	326.93	86.8822	TRUE
bf_H6-bf_H7	253.97	86.8822	TRUE