CN2 Rule Viewer Fri Nov 10 17, 16:59:29

Data domain

Features: Zero, One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen (total: 19 features)
Target: Class

Rule induction algorithm

Rule ordering: unordered Covering algorithm: weighted Gamma: 0.7

Evaluation measure: wracc Beam width: 5 Minimum rule coverage: 1 Maximum rule length: 5 Default alpha: 1.0 Parent alpha: 1.0

Induc	ed rules						
	IF conditions		THEN class	Distribution	Probabilities [%]	Quality	Length
	Fifteen≥-0.343546779 AND Four≤2.393726282 AND Fifteen≥-0.007783632 AND Four≥-0.461010186 AND Thirteen≤3.527759281	\rightarrow	Class=0	[1151, 243]	83 : 17	0.091	5
1	Fifteen≥-0.134387922 AND Four≤1.710508525 AND Seven≥-0.615572152 AND Eight≤2.602101004 AND Six≤2.721477765	\rightarrow	Class=0	[1103.1, 451.0]	71 : 29	0.083	5
2	Fifteen≥-0.134387922 AND Fifteen≤4.446826786 AND Four≤2.395054669 AND Fourteen≤1.869253149 AND Seventeen≥-1.96549274	\rightarrow	Class=0	[1303.2, 1064.0]	55 : 45	0.071	5
3	Fifteen≥-1.194909852 AND Fifteen≥-0.441697803 AND Eight≥-3.228344129 AND Four≤3.174541224 AND Zero≥-3.209771089	\rightarrow	Class=0	[1142.8, 1430.0]	44 : 56	0.053	5
4	Fifteen≥-1.194909852 AND Sixteen≤1.260537701 AND Fifteen≤4.446826786 AND Zero≤1.367894959 AND Three≥-1.947004367	\rightarrow	Class=0	[817.7, 1411.0]	37 : 63	0.040	5
5	Fifteen≥-0.99821052 AND One≤1.525162729 AND Fifteen≤2.276904266 AND Seventeen≥-1.946950271 AND Eleven≤2.259694402	\rightarrow	Class=0	[580.1, 1301.0]	31 : 69	0.032	5
6	Fifteen≥-2.289481746 AND Seven≥0.671267187 AND Four≤0.050331377	\rightarrow	Class=0	[197.9, 156.0]	56 : 44	0.039	3
7	Fifteen≥-2.289481746 AND Fifteen≥-0.873539448 AND Four≥-0.211022993 AND Four≤3.503004631 AND Seven≤-0.119859127	\rightarrow	Class=0	[185.7, 255.0]	42 : 58	0.032	5
8	Fifteen≥-2.650595749 AND Seven≥-0.260563067 AND Four≤0.280642552 AND Four≥-2.377311819 AND Eighteen≥-2.617694949	\rightarrow	Class=0	[247.5, 432.0]	36 : 64	0.041	5
9	Thirteen≥-0.586933925 AND Fifteen≥-1.947245359 AND Eighteen≤1.607044303 AND Seventeen≤1.857035427 AND Three≤0.887221034	\rightarrow	Class=0	[266.8, 1054.0]	20 : 80	0.018	5
10	Fifteen≥-2.650595749 AND Eleven≥-0.853187149 AND Fifteen≥-1.184376505 AND Ten≤0.83720525 AND Three≤2.223244369	\rightarrow	Class=0	[227.9, 1120.0]	17 : 83	0.015	5
11	Fifteen≥-2.650595749 AND Fifteen≥0.885117127 AND Four≥-0.795949153 AND Three≤2.388982703 AND Four≤1.487693623	\rightarrow	Class=0	[70.4, 62.0]	53 : 47	0.019	5
12	Fifteen≥-2.650595749 AND Seventeen≤0.991701778 AND Eighteen≥-1.361192497 AND Fifteen≥-2.642711825 AND Fifteen≥-2.289481746	\rightarrow	Class=0	[245.2, 1707.0]	13 : 87	0.011	5
13	Four≥2.554845621 AND Fifteen≤0.18437118 AND One≥-2.21898916 AND Nine≤2.460249607	\rightarrow	Class=0	[24.8, 29.0]	46 : 54	0.007	4
14	Four≤-0.673169335 AND Seven≥0.003650857 AND Fifteen≥-2.612400144	\rightarrow	Class=0	[54.8, 194.0]	22 : 78	0.012	3
15	Fifteen≥-2.650595749 AND Eight≤0.155153081 AND Fourteen≤1.444992901 AND Eighteen≤1.59682009 AND Two≤2.284272298	\rightarrow	Class=0	[112.5, 1070.0]	10 : 90	0.007	5
16	Fifteen≥-2.650595749 AND Eight≥-0.23011387 AND Thirteen≤0.429900862 AND Ten≥-1.16996581 AND Fifteen≥-2.2848328	\rightarrow	Class=0	[69.6, 728.0]	9 : 91	0.006	5
17	Fifteen≥-2.650595749 AND Sixteen≥0.144116442 AND Fourteen≥-1.401520455 AND One≤1.232147109 AND Six≥-2.112342382	\rightarrow	Class=0	[67.5, 821.0]	8 : 92	0.006	5
18	Four≥2.260581264 AND Fifteen≤0.440416107 AND One≥-2.298153368	\rightarrow	Class=0	[16.0, 72.0]	19 : 81	0.004	3
19	Four≤-1.269351223 AND Fifteen≤0.630713373 AND Eleven≤2.453540112 AND Eleven≥-1.801083426 AND Zero≥-1.750904116	\rightarrow	Class=0	[18.6, 44.0]	30 : 70	0.006	5
20	One≥0.630354719 AND Fifteen≥0.14838141 AND Four≥-0.473293361 AND Four≤1.963966918	\rightarrow	Class=0	[10.1, 31.0]	26 : 74	0.003	4
21	Fifteen≥-2.650595749 AND Seven≥1.006385965 AND Seven≤3.277318105 AND Four≤-0.430974568 AND Four≥-2.563645863	\rightarrow	Class=0	[14.7, 58.0]	21 : 79	0.004	5
22	Five≥0.756213416 AND Two≤2.106398254 AND Fifteen≥-3.60607008 AND Zero≥-0.846816903 AND Seven≤2.748210805	\rightarrow	Class=0	[26.6, 395.0]	7 : 93	0.003	5
23	Fifteen≥-2.650595749 AND Five≤1.833390733 AND Eleven≥-1.950239587 AND Eighteen≥-3.287196065 AND Eighteen≥-2.629888174	\rightarrow	Class=0	[105.6, 2185.0]	5 : 95	0.003	5
24	Fifteen≥-2.023293942 AND Eight≥-3.228344129 AND Eleven≥-3.552999838 AND Eleven≥-3.168698829 AND Three≤2.680631524		Class=0	[74.3, 2160.0]	3:97	0.002	5
25	Zero≥0.477621985 AND Two≤1.795613755 AND Seven≤1.095645966 AND Six≤0.706062295 AND Sixteen≤1.625363179	\rightarrow	Class=0	[13.2, 394.0]	3 : 97	0.002	5
26	Fifteen≥2.650595749 AND Zero≤0.708743846 AND Fourteen≤1.881013141 AND One≤3.010467229 AND One≥-1.435093577	\rightarrow	Class=0	[38.9, 1563.0]	2 : 98	0.002	5
27	Zero≥0.477621985 AND Sixteen≤1.575446947 AND Fourteen≤1.260654412 AND Fourteen≥-1.003522297 AND Ten≤0.303443354	\rightarrow	Class=0	[7.7, 288.0]	3:97	0.001	5
	Fifteen>-2.650595749 AND Three<0.680631524 AND Zero<0.15362509	\rightarrow	Class=0	[23.3, 1294.0]	2:98	0.001	3
29	Zero≥0.477621985 AND Nine≥-1.552515014 AND Fifteen≥-3.60607008 AND Three≥-1.927274837 AND Six≥-2.055043914	\rightarrow	Class=0	[11.9, 678.0]	2 : 98	0.001 8.26e-	5
30	Fifteen≥-2.650595749 AND Eleven≥-3.552999838 AND Eleven≤1.497192746 AND Zero≤1.042288916 Fifteen≥-3.60607008 AND Zero≥1.146056035 AND Seventeen≤1.750742769 AND Twelve≤1.052849155 AND	\rightarrow	Class=0	[23.7, 1850.0]	1 : 99	0.20e- 04 4.98e-	4
31	Five≤1.231266008	\rightarrow	Class=0	[3.1, 205.0]	2 : 98	04	5
32	Fifteen>-2.650595749 AND Fourteen>-3.017924403 AND Fourteen>0.171494076	\rightarrow	Class=0	[9.4, 969.0]	1 : 99	4.89e- 04	3
33	Fourteen≤-0.465356973 AND Two≤1.307117078 AND Zero≤1.377992285 AND Six≥-1.308096134 AND Fifteen≥-3.60607008	\rightarrow	Class=0	[5.7, 557.0]	1 : 99	6.33e- 04	5
34	Fifteen>2.650595749 AND Fourteen>-3.017924403 AND Fourteen≤1.002462074 AND Four≤0.050331377 AND Seven≥0.102032531	\rightarrow	Class=0	[4.0, 240.0]	2:98	9.63e- 04	5
35	Fifteen>-0.347574743 AND Four>-0.175690617 AND Four>2.395054669	\rightarrow	Class=0	[5.1, 321.0]	2 : 98	0.001	3
36	Eighteen≥0.450953342 AND Nine≤1.239358767 AND Seven≤2.929161604 AND One≤1.858765539 AND Fourteen≥-0.536749211	\rightarrow	Class=0	[3.6, 451.0]	1 : 99	4.21e- 04	5
37	Eight≤0.059668537 AND Two≤0.013263674 AND Fifteen≥-3.509985847 AND One≤1.226418105 AND	\rightarrow	Class=0	[3.2, 428.0]	1 : 99	4.13e-	5

	Sixteen≤0.901441051					04	
38	Fifteen>-2.650595749	\rightarrow	Class=0	[11.6, 2332.0]	1:99	2.20e-	1
39	Eleven≥-3.552999838 AND Eleven≥0.949520726 AND Five≥-1.773555235 AND One≤1.184064486 AND	\rightarrow	Class=0	[1.5, 326.0]	1:99	04 1.57e-	5
40	Sixteen≥-1.635143835 Fifteen≥-3.60607008 AND Four≤-1.015265566 AND Fifteen≤0.481873205 AND Two≥-2.225902042 AND Eleven≥-2.130476101	\rightarrow	Class=0	[1.2, 57.0]	4:96	04 4.11e- 04	5
41	Fifteen≥-2.650595749 AND Eleven≤0.860371607 AND Fifteen≥-0.347574743 AND Four≥-0.503178041 AND	\rightarrow	Class=0	[1.8, 260.0]	1:99	4.14e-	5
	Four≤1.960057188 Fifteen≥2.650595749 AND Eighteen≤3.640622681 AND Eighteen≤0.385172191 AND Eleven≤0.860371607 AND					04 2.26e-	
42	Seventeen<2.020389218	\rightarrow	Class=0	[3.8, 1171.0]	0 : 100	04	5
43	Eighteen≥0.303567067 AND Fourteen≤0.742675052 AND Thirteen≤2.009893254 AND Seventeen≥-0.466419555 AND Zero≥-0.962779088	\rightarrow	Class=0	[1.3, 368.0]	1:99	1.87e- 04	5
44	Fifteen≥-2.650595749 AND Eleven≥0.690821544 AND Thirteen≥-1.322410351 AND Seven≤3.337820598 AND Fourteen≥-1.001034359	\rightarrow	Class=0	[1.2, 400.0]	1:99	1.45e- 04	5
45	Fifteen≥-2.289481746 AND Eight≥-3.228344129 AND Three≥-0.048497805 AND Ten≥-0.972519579	\rightarrow	Class=0	[2.3, 935.0]	0:100	1.58e- 04	4
46	Three≤-0.121960963 AND Fifteen≥-3.509985847 AND One≤1.215044024 AND Two≤2.812233585 AND Two≥-2.944481825	\rightarrow	Class=0	[2.1, 968.0]	0:100	1.55e- 04	5
47	Fifteen≥-1.495525139 AND Eleven≥-3.552999838 AND Eleven≤0.346365659 AND Three≥-0.047892222 AND Eight≥-2.15967574	\rightarrow	Class=0	[1.3, 624.0]	0 : 100	1.41e- 04	5
48	Fifteen≥-3.60607008 AND Three≤0.299168305 AND Eleven≥-3.552999838 AND Eleven≥-0.033426514 AND	\rightarrow	Class=0	[1.1, 670.0]	0 : 100	9.32e-	5
	Sixteen≥-1.462181371					05 2.27e-	
49	Fifteen≥-3.60607008	\rightarrow	Class=0	[3.0, 2455.0]	0 : 100	05 1.59e-	1
50	Fifteen≥-3.60607008 AND Eighteen≤3.640622681	\rightarrow	Class=0	[2.1, 2455.0]	0 : 100	05	2
51	Fifteen≥-3.60607008 AND Fourteen≥-3.017924403	\rightarrow	Class=0	[1.5, 2455.0]	0:100	1.07e- 05	2
52	Fifteen≥-3.60607008 AND Three≥-3.85650329	\rightarrow	Class=0	[1.0, 2455.0]	0:100	7.69e- 06	2
53	Fifteen≤-0.018422395 AND Four≤2.244633079 AND Four≥-1.190353439	\rightarrow	Class=1	[227, 1166]	16 : 84	0.094	3
54	Fifteen≤-0.134387922 AND Four≤2.527531532 AND Four≥-0.464371319 AND Fourteen≥-3.017924403 AND Eight≥-2.316872261	\rightarrow	Class=1	[121.0, 701.5]	15 : 85	0.069	5
55	Seven≤0.671267187 AND Four≤-0.211022993 AND Seven≤0.104821716 AND Fifteen≥-0.594878702 AND Four≥-3.0327124	\rightarrow	Class=1	[334.0, 812.0]	29 : 71	0.070	5
56	Fifteen≤0.29842449 AND Four≤1.843909925 AND Four≥-0.711361587 AND Eight≥-2.316872261 AND Ten≥-2.733327503	\rightarrow	Class=1	[203.0, 594.8]	26 : 74	0.065	5
57	Seven≤0.871625217 AND Four≤-0.467578942 AND Seven≤0.433129236 AND Fifteen≥-0.060950628 AND Nine≥-2.59570608	\rightarrow	Class=1	[351.0, 577.0]	38 : 62	0.056	5
58	Fifteen≤0.563215906 AND Four≥-1.283831546 AND Four≤1.511202788 AND Nine≤2.315093718 AND Eight≥-2.418349987	\rightarrow	Class=1	[342.0, 508.3]	40 : 60	0.055	5
59	Four≥1.903017585 AND Seven≥-0.818709419 AND Six≤2.218052697 AND Nine≥-2.29450142 AND Six≥-2.952737227	\rightarrow	Class=1	[78.0, 226.8]	26 : 74	0.035	5
60	Fifteen≤-1.194909852 AND Thirteen≥-2.644400929 AND Four≤4.071429495 AND Twelve≥-2.371878033 Seven≤1.00044999 AND Four≤-0.493840568 AND Fifteen≥0.225624275 AND Nine≥-2.59570608 AND	\rightarrow	Class=1	[85.0, 212.9]	29 : 71	0.033	4
61	Thirteen≤1.843161383	\rightarrow	Class=1	[440.0, 416.1]	51 : 49	0.045	5
62	Fifteen≤-0.99821052 AND Four≤3.525494857 AND Thirteen≥-2.644400929 AND Sixteen≥-3.03152781 AND Twelve≥-2.371878033	\rightarrow	Class=1	[105.0, 171.7]	38 : 62	0.028	5
63	Fifteen≤-0.134387922 AND Nine≥-2.503454256 AND Four≤2.860744404 AND Eight≥-2.316872261 AND Twelve≥-2.336387324	\rightarrow	Class=1	[324.0, 250.5]	56 : 44	0.030	5
64	Seven≤1.008731794 AND Four≤-0.272268445 AND Fifteen≥-0.117173723 AND Nine≥-2.7679664 AND Fourteen≥-1.800287337	\rightarrow	Class=1	[534.0, 325.4]	62 : 38	0.035	5
65 66	Four≥1.710508525 AND Zero≥-2.707082336 AND Seven≥-1.251293866	→	Class=1 Class=1	[161.0, 197.0] [818.0, 335.8]	45 : 55 71 : 29	0.037 0.031	3 4
66 67	Fifteen≤0.758689027 AND Eighteen≥-2.283802758 AND Four≥-1.206855507 AND Nine≤2.116693583 Seven≤1.00044999 AND Four≤-0.503178041 AND Sixteen≤2.49467269 AND Fifteen≥0.478049314	\rightarrow	Class=1	[420.0, 196.9]	68 : 32	0.031	4
68	Twelve≤0.879891738 AND Four≥1.950910025 AND Seven≥-2.203840513 AND Six≤1.90958501 AND Two≤2.264960327	\rightarrow	Class=1	[143.0, 89.9]	61 : 39	0.017	5
69	Four≥1.218307019 AND Two≤1.959759189 AND Seven≥1.585707508 AND Eight≥-2.060783845 AND Nine≤2.648151592 Four≤-2.219562667 AND Fifteen≥1.846150295 AND Three≤2.633337493 AND Twelve≥-1.856728419 AND	\rightarrow	Class=1	[327.0, 142.7]	70 : 30	0.023	5
70	Six≥-1.583603457	\rightarrow	Class=1	[39.0, 38.1]	51 : 49	0.009	5
71	Eleven≤-0.309323881 AND Seven≤0.999287594 AND Four≤0.111130868 AND Seven≤-0.532549987 AND Eight≤2.308310514	\rightarrow	Class=1	[84.0, 49.4]	63 : 37	0.010	5
72	Five≤0.333495067 AND Sixteen≥-0.985969793 AND Twelve≤0.886310019 AND Eight≥-1.202219687 AND Six≥-0.978645898	\rightarrow	Class=1	[690.0, 141.4]	83 : 17	0.009	5
73	Fifteen<-2.650595749 AND Two>-2.141902283 Throa>0 881803572 AND One> 0 732015031 AND Fight<1 269041036 AND Two> 1 973881506 AND	\rightarrow	Class=1	[3.0, 21.0]	15 : 85	0.006	2
74	Three≥0.881893522 AND One≥-0.732015931 AND Eight≤1.269041936 AND Two≥-1.973881506 AND Eleven≤2.031222814	\rightarrow	Class=1	[263.0, 57.9]	82 : 18	0.007	5
75	Three≤-0.048497805 AND Eleven≤0.669268214 AND Six≥-1.622011705 AND Nine≤1.328168056 AND Seven≥-3.016132051	\rightarrow	Class=1	[688.0, 117.9]	85 : 15	0.008	5
76	Three≥-0.70274373 AND Seven≤0.923578748 AND Four≤-0.015822588 AND Fifteen≥-0.66854705 AND Sixteen≥-2.523263224	\rightarrow	Class=1	[487.0, 99.3]	83 : 17	0.013	5
77	Fifteen<-2.289481746	\rightarrow	Class=1	[12.0, 17.5]	41 : 59	0.005	1
78	Fifteen≤-0.708256709 AND Four≤2.965829901 AND Eight≥-2.385840409 AND Thirteen≥-2.644400929 AND Six≥-2.457983625	\rightarrow	Class=1	[150.0, 48.9]	75 : 25	0.011	5
79 80	Four≥2.395054669 AND Fifteen≥0.25762476 AND Seven≥-2.203840513 AND Three≥-2.158462583 Four≥1.043009895 AND Nine≤2.648151592 AND Seven≥-0.97145769 AND Six≤2.558306276	\rightarrow	Class=1 Class=1	[1.0, 23.6]	8 : 92 78 : 22	0.008 0.015	4
80 81	Four≤-1.153021978 AND Fifteen≥0.660482199 AND Seven≤0.186257234	\rightarrow	Class=1	[249.0, 69.5] [153.0, 41.0]	78 : 22 79 : 21	0.015	3
82	Sixteen≤-0.072788578 AND One≥-1.757272303 AND Seventeen≤0.563462753 AND Zero≥-1.476782214 AND Twelve≤1.740374933	\rightarrow	Class=1	[671.0, 68.3]	91 : 9	0.004	5
83	Ten≤-0.770289084 AND Fifteen≤0.276165411 AND Four≤1.982364948 AND Eleven≤2.575112153 AND Twelve≤1.544130895	\rightarrow	Class=1	[87.0, 18.0]	82 : 18	0.004	5
84	Seventeen≥0.932716755 AND Eight≥-0.757416822 AND Eighteen≥-1.974492444 AND Seven≤1.826803491 AND Seventeen≤2.992275957	\rightarrow	Class=1	[269.0, 30.5]	90 : 10	0.004	5
85	Twelve≤-0.272816224 AND Ten≤1.564840404 AND Seventeen≥-0.615525901 AND Eighteen≥-0.902478475 AND Six≥-1.600690519	\rightarrow	Class=1	[450.0, 41.7]	91 : 9	0.004	5
86	Twelve≥-1.032067454 AND Thirteen≤-0.627517102 AND Ten≤1.882415741 AND Fourteen≥-2.521981885 AND Six≥-2.497897796	\rightarrow	Class=1	[480.0, 42.2]	92 : 8	0.004	5
87	Ten≥0.836271153 AND Seven≤0.828096747 AND Seventeen≤0.969035397 AND Six≤0.992421787 AND Eight≥-1.348841734	\rightarrow	Class=1	[172.0, 17.8]	90 : 10	0.003	5

88	Sixteen≥0.987962582 AND Zero≤2.641271121 AND Seven≥-2.567283881 AND Five≤1.158816077 AND Nine≥-1.213238165	\rightarrow	Class=1	[270.0, 21.8]	92 : 8	0.002	5
89	Sixteen≤0.764735595 AND Thirteen≥0.571377082 AND Fifteen≤0.924327919 AND Four≥-1.615308607 AND Eight≥-1.934683404	\rightarrow	Class=1	[197.0, 22.1]	90 : 10	0.004	5
90	Six≤-1.375606325 AND Thirteen≥-0.572376416 AND Eight≤1.815005424 AND Three≥-0.746116592 AND Eighteen≥-0.174673501	\rightarrow	Class=1	[55.0, 8.0]	86 : 14	0.002	5
91	Twelve≥-1.032067454 AND Sixteen≥-0.502157975 AND Seven≥-3.106421904 AND Fourteen≤0.241072626 AND Eleven≥-1.796976568	\rightarrow	Class=1	[787.0, 49.3]	94 : 6	0.004	5
92	Fourteen≥1.923918479 AND Five≥-0.564777892 AND Nine≤0.835496127	\rightarrow	Class=1	[25.0, 4.7]	82 : 18	0.001	3
93	Eighteen≤0.203068093 AND Seven≤1.374580151 AND Four≤-0.473713922 AND Fifteen≥-0.140531127 AND Five≤1.847516446	\rightarrow	Class=1	[351.0, 26.3]	93 : 7	0.004	5
94	Nine≥0.99918523 AND Ten≤0.962840083 AND Seven≥-2.060236633 AND Sixteen≤2.488081496 AND Fifteen≤0.520257925	\rightarrow	Class=1	[97.0, 8.6]	91 : 9	0.002	5
95	Four≥3.174541224 AND Fifteen≥0.462339243	\rightarrow	Class=1	[0.0, 3.3]	19 : 81	0.001	2
96	Four≥1.043009895 AND Seven≥0.235529135	\rightarrow	Class=1	[52.0, 16.5]	75 : 25	0.005	2
97	Four≤-2.454392947 AND Fifteen≥2.12282303 AND Four≥-4.079436703 AND Twelve≥-1.856728419 AND Four≥-3.708491097	\rightarrow	Class=1	[18.0, 4.1]	79 : 21	0.001	5
98	Fifteen≤-2.650595749	\rightarrow	Class=1	[4.0, 3.3]	54 : 46	0.001	1
99	Fifteen≤-0.007783632 AND Four≤1.926688751	\rightarrow	Class=1	[330.0, 28.9]	92 : 8	0.006	2
	+ 48 more						

CN2 Rule Viewer Fri Nov 10 17, 19:07:22

Data domain

Features: Zero, One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen (total: 19 features)
Target: Class

Rule induction algorithm

Rule ordering: unordered Covering algorithm: weighted Gamma: 0.7

Evaluation measure: wracc Beam width: 5

Minimum rule coverage: 1 Maximum rule length: 5 Default alpha: 1.0 Parent alpha: 1.0

Induced rules

			THEN		Probabilities		
	IF conditions		class	Distribution	[%]	Quality	Length
	Fifteen≥-0.343546779 AND Four≤2.393726282 AND Fifteen≥-0.007783632 AND Four≥-0.461010186 AND Thirteen≤3.527759281	\rightarrow	Class=0	[1151, 243]	83 : 17	0.091	5
1	Fifteen≥-0.134387922 AND Four≤1.710508525 AND Seven≥-0.615572152 AND Eight≤2.602101004 AND Six≤2.721477765	\rightarrow	Class=0	[1103.1, 451.0]	71 : 29	0.083	5
2	Fifteen≥-0.134387922 AND Fifteen≤4.446826786 AND Four≤2.395054669 AND Fourteen≤1.869253149 AND Seventeen≥-1.96549274	\rightarrow	Class=0	[1303.2, 1064.0]	55 : 45	0.071	5
3	Fifteen≥-1.194909852 AND Fifteen≥-0.441697803 AND Eight≥-3.228344129 AND Four≤3.174541224 AND Zero≥-3.209771089	\rightarrow	Class=0	[1142.8, 1430.0]	44 : 56	0.053	5
4	Fifteen≥-1.194909852 AND Sixteen≤1.260537701 AND Fifteen≤4.446826786 AND Zero≤1.367894959 AND Three≥-1.947004367	\rightarrow	Class=0	[817.7, 1411.0]	37 : 63	0.040	5
5	Fifteen≥-0.99821052 AND One≤1.525162729 AND Fifteen≤2.276904266 AND Seventeen≥-1.946950271 AND Eleven≤2.259694402	\rightarrow	Class=0	[580.1, 1301.0]	31 : 69	0.032	5
6	Fifteen≥-2.289481746 AND Seven≥0.671267187 AND Four≤0.050331377	\rightarrow	Class=0	[197.9, 156.0]	56 : 44	0.039	3
7	Fifteen≥-2.289481746 AND Fifteen≥-0.873539448 AND Four≥-0.211022993 AND Four≤3.503004631 AND Seven≤-0.119859127	\rightarrow	Class=0	[185.7, 255.0]	42 : 58	0.032	5
8	Fifteen≥-2.650595749 AND Seven≥-0.260563067 AND Four≤0.280642552 AND Four≥-2.377311819 AND Eighteen≥-2.617694949	\rightarrow	Class=0	[247.5, 432.0]	36 : 64	0.041	5
9	Thirteen≥-0.586933925 AND Fifteen≥-1.947245359 AND Eighteen≤1.607044303 AND Seventeen≤1.857035427 AND Three≤0.887221034	\rightarrow	Class=0	[266.8, 1054.0]	20 : 80	0.018	5
10	Fifteen≥-2.650595749 AND Eleven≥-0.853187149 AND Fifteen≥-1.184376505 AND Ten≤0.83720525 AND Three≤2.223244369	\rightarrow	Class=0	[227.9, 1120.0]	17 : 83	0.015	5
11	Fifteen≥-2.650595749 AND Fifteen≥0.885117127 AND Four≥-0.795949153 AND Three≤2.388982703 AND Four≤1.487693623	\rightarrow	Class=0	[70.4, 62.0]	53 : 47	0.019	5
12	Fifteen≥-2.650595749 AND Seventeen≤0.991701778 AND Eighteen≥-1.361192497 AND Fifteen≥-2.642711825 AND Fifteen≥-2.289481746	\rightarrow	Class=0	[245.2, 1707.0]	13 : 87	0.011	5
13	Four≥2.554845621 AND Fifteen≤0.18437118 AND One≥-2.21898916 AND Nine≤2.460249607	\rightarrow	Class=0	[24.8, 29.0]	46 : 54	0.007	4
14	Four≤-0.673169335 AND Seven≥0.003650857 AND Fifteen≥-2.612400144	\rightarrow	Class=0	[54.8, 194.0]	22 : 78	0.012	3
15	Fifteen≥-2.650595749 AND Eight≤0.155153081 AND Fourteen≤1.444992901 AND Eighteen≤1.59682009 AND Two≤2.284272298	\rightarrow	Class=0	[112.5, 1070.0]	10 : 90	0.007	5
16	Fifteen≥-2.650595749 AND Eight≥-0.23011387 AND Thirteen≤0.429900862 AND Ten≥-1.16996581 AND Fifteen≥-2.2848328	\rightarrow	Class=0	[69.6, 728.0]	9 : 91	0.006	5
17	Fifteen≥-2.650595749 AND Sixteen≥0.144116442 AND Fourteen≥-1.401520455 AND One≤1.232147109 AND Six≥-2.112342382	\rightarrow	Class=0	[67.5, 821.0]	8 : 92	0.006	5
18	Four≥2.260581264 AND Fifteen≤0.440416107 AND One≥-2.298153368	\rightarrow	Class=0	[16.0, 72.0]	19 : 81	0.004	3
19	Four≤-1.269351223 AND Fifteen≤0.630713373 AND Eleven≤2.453540112 AND Eleven≥-1.801083426 AND Zero≥-1.750904116	\rightarrow	Class=0	[18.6, 44.0]	30 : 70	0.006	5
20	One≥0.630354719 AND Fifteen≥0.14838141 AND Four≥-0.473293361 AND Four≤1.963966918	\rightarrow	Class=0	[10.1, 31.0]	26 : 74	0.003	4
21	Fifteen≥-2.650595749 AND Seven≥1.006385965 AND Seven≤3.277318105 AND Four≤-0.430974568 AND Four≥-2.563645863	\rightarrow	Class=0	[14.7, 58.0]	21 : 79	0.004	5
22	Five≥0.756213416 AND Two≤2.106398254 AND Fifteen≥-3.60607008 AND Zero≥-0.846816903 AND Seven≤2.748210805	\rightarrow	Class=0	[26.6, 395.0]	7 : 93	0.003	5

23	Fifteen≥-2.650595749 AND Five≤1.833390733 AND Eleven≥-1.950239587 AND Eighteen≥-3.287196065 AND Eighteen≥-2.629888174	\rightarrow	Class=0	[105.6, 2185.0]	5:95	0.003	5
24	Fifteen≥-2.023293942 AND Eight≥-3.228344129 AND Eleven≥-3.552999838 AND Eleven≥-3.168698829 AND	\rightarrow	Class=0	[74.3, 2160.0]	3:97	0.002	5
25	Three≤2.680631524 Zero≥0.477621985 AND Two≤1.795613755 AND Seven≤1.095645966 AND Six≤0.706062295 AND Sixteen≤1.625363179		Class=0	[13.2, 394.0]	3:97	0.002	5
26	Fifteen>-2.650595749 AND Zero≤0.708743846 AND Fourteen≤1.881013141 AND One≤3.010467229 AND		Class=0		2:98	0.002	5
20	One≥-1.435093577	\rightarrow	Class=0	[38.9, 1563.0]	2.90	0.002	5
27	Zero≥0.477621985 AND Sixteen≤1.575446947 AND Fourteen≤1.260654412 AND Fourteen≥-1.003522297 AND Ten≤0.303443354	\rightarrow	Class=0	[7.7, 288.0]	3 : 97	0.001	5
28	Fifteen≥-2.650595749 AND Three≤2.680631524 AND Zero≤0.15362509	\rightarrow	Class=0	[23.3, 1294.0]	2:98	0.001	3
29	Zero≥0.477621985 AND Nine≥-1.552515014 AND Fifteen≥-3.60607008 AND Three≥-1.927274837 AND Six≥-2.055043914	\rightarrow	Class=0	[11.9, 678.0]	2:98	0.001	5
30	Fifteen≥-2.650595749 AND Eleven≥-3.552999838 AND Eleven≤1.497192746 AND Zero≤1.042288916	\rightarrow	Class=0	[23.7, 1850.0]	1:99	8.26e- 04	4
31	Fifteen≥-3.60607008 AND Zero≥1.146056035 AND Seventeen≤1.750742769 AND Twelve≤1.052849155 AND Five≤1.231266008	\rightarrow	Class=0	[3.1, 205.0]	2:98	4.98e- 04	5
			01 0	ro 4 000 01	4 00	4.89e-	
32	Fifteen≥-2.650595749 AND Fourteen≥-3.017924403 AND Fourteen≥0.171494076	\rightarrow	Class=0	[9.4, 969.0]	1 : 99	04	3
33	Fourteen≤-0.465356973 AND Two≤1.307117078 AND Zero≤1.377992285 AND Six≥-1.308096134 AND Fifteen≥-3.60607008	\rightarrow	Class=0	[5.7, 557.0]	1:99	6.33e- 04	5
34	Fifteen≥-2.650595749 AND Fourteen≥-3.017924403 AND Fourteen≤1.002462074 AND Four≤0.050331377 AND	\rightarrow	Class=0	[4.0, 240.0]	2:98	9.63e-	5
35	Seven≥0.102032531 Fifteen≥-0.347574743 AND Four≥-0.175690617 AND Four≤2.395054669	\rightarrow	Class=0	[5.1, 321.0]	2:98	04 0.001	3
36	Eighteen≥0.450953342 AND Nine≤1.239358767 AND Seven≤2.929161604 AND One≤1.858765539 AND	\rightarrow	Class=0	[3.6, 451.0]	1:99	4.21e-	5
50	Fourteen≥-0.536749211		Olass-0	[0.0, 401.0]	1.55	04	3
37	Eight≤0.059668537 AND Two≤0.013263674 AND Fifteen≥-3.509985847 AND One≤1.226418105 AND Sixteen≤0.901441051	\rightarrow	Class=0	[3.2, 428.0]	1:99	4.13e- 04	5
38	Fifteen≥-2.650595749	\rightarrow	Class=0	[11.6, 2332.0]	1:99	2.20e- 04	1
39	Eleven≥-3.552999838 AND Eleven≥0.949520726 AND Five≥-1.773555235 AND One≤1.184064486 AND		Class=0	[4 5 226 0]	1 . 00	1.57e-	5
39	Sixteen≥-1.635143835	\rightarrow	Class=0	[1.5, 326.0]	1 : 99	04	5
40	Fifteen≥-3.60607008 AND Four≤-1.015265566 AND Fifteen≤0.481873205 AND Two≥-2.225902042 AND Eleven≥-2.130476101	\rightarrow	Class=0	[1.2, 57.0]	4:96	4.11e- 04	5
41	Fifteen≥-2.650595749 AND Eleven≤0.860371607 AND Fifteen≥-0.347574743 AND Four≥-0.503178041 AND	\rightarrow	Class=0	[1.8, 260.0]	1:99	4.14e-	5
	Four≤1.960057188 Fifteen≥-2.650595749 AND Eighteen≤3.640622681 AND Eighteen≤0.385172191 AND Eleven≤0.860371607 AND					04 2.26e-	
42	Seventeen≤2.020389218	\rightarrow	Class=0	[3.8, 1171.0]	0 : 100	04	5
43	Eighteen≥0.303567067 AND Fourteen≤0.742675052 AND Thirteen≤2.009893254 AND Seventeen≥-0.466419555 AND Zero≥-0.962779088	\rightarrow	Class=0	[1.3, 368.0]	1:99	1.87e- 04	5
44	Fifteen≥-2.650595749 AND Eleven≥0.690821544 AND Thirteen≥-1.322410351 AND Seven≤3.337820598 AND	\rightarrow	Class=0	[1.2, 400.0]	1:99	1.45e-	5
	Fourteen≥-1.001034359					04 1.58e-	
45	Fifteen≥-2.289481746 AND Eight≥-3.228344129 AND Three≥-0.048497805 AND Ten≥-0.972519579	\rightarrow	Class=0	[2.3, 935.0]	0 : 100	04	4
46	Three≤-0.121960963 AND Fifteen≥-3.509985847 AND One≤1.215044024 AND Two≤2.812233585 AND Two≥-2.944481825	\rightarrow	Class=0	[2.1, 968.0]	0:100	1.55e- 04	5
47	Fifteen≥-1.495525139 AND Eleven≥-3.552999838 AND Eleven≤0.346365659 AND Three≥-0.047892222 AND	_	Class=0	[1.3, 624.0]	0 : 100	1.41e-	5
	Eight≥-2.15967574 Fifteen≥-3.60607008 AND Three≤0.299168305 AND Eleven≥-3.552999838 AND Eleven≥-0.033426514 AND		Class o	[1.0, 024.0]	0.100	04 9.32e-	Ü
48	Sixteen≥-1.462181371	\rightarrow	Class=0	[1.1, 670.0]	0 : 100	05	5
49	Fifteen≥-3.60607008	\rightarrow	Class=0	[3.0, 2455.0]	0:100	2.27e- 05	1
50	Fifteen≥-3.60607008 AND Eighteen≤3.640622681		Class=0	[2.1, 2455.0]	0 : 100	1.59e-	2
30	Tilledii=-0.00007000 AND Eightedii=0.040022001	_	Class=0	[2.1, 2455.0]	0.100	05	2
51	Fifteen≥-3.60607008 AND Fourteen≥-3.017924403	\rightarrow	Class=0	[1.5, 2455.0]	0 : 100	1.07e- 05	2
52	Fifteen≥-3.60607008 AND Three≥-3.85650329	\rightarrow	Class=0	[1.0, 2455.0]	0:100	7.69e- 06	2
53	Fifteen≤-0.018422395 AND Four≤2.244633079 AND Four≥-1.190353439	\rightarrow	Class=1	[227, 1166]	16 : 84	0.094	3
54	Fifteen≤-0.134387922 AND Four≤2.527531532 AND Four≥-0.464371319 AND Fourteen≥-3.017924403 AND	\rightarrow	Class=1	[121.0, 701.5]	15 : 85	0.069	5
	Eight≥-2.316872261 Seven≤0.671267187 AND Four≤-0.211022993 AND Seven≤0.104821716 AND Fifteen≥-0.594878702 AND						
55	Four≥-3.0327124	\rightarrow	Class=1	[334.0, 812.0]	29 : 71	0.070	5
56	Fifteen≤0.29842449 AND Four≤1.843909925 AND Four≥-0.711361587 AND Eight≥-2.316872261 AND Ten≥-2.733327503	\rightarrow	Class=1	[203.0, 594.8]	26 : 74	0.065	5
57	Seven≤0.871625217 AND Four≤-0.467578942 AND Seven≤0.433129236 AND Fifteen≥-0.060950628 AND Nine≥-2.59570608	\rightarrow	Class=1	[351.0, 577.0]	38 : 62	0.056	5
58	Fifteen≤0.563215906 AND Four≥-1.283831546 AND Four≤1.511202788 AND Nine≤2.315093718 AND Eight≥-2.418349987	\rightarrow	Class=1	[342.0, 508.3]	40 : 60	0.055	5
59	Four≥1.903017585 AND Seven≥-0.818709419 AND Six≤2.218052697 AND Nine≥-2.29450142 AND Six≥-2.952737227	\rightarrow	Class=1	[78.0, 226.8]	26 : 74	0.035	5
60	Fifteen≤-1.194909852 AND Thirteen≥-2.644400929 AND Four≤4.071429495 AND Twelve≥-2.371878033	\rightarrow	Class=1	[85.0, 212.9]	29 : 71	0.033	4
61	Seven≤1.00044999 AND Four≤-0.493840568 AND Fifteen≥0.225624275 AND Nine≥-2.59570608 AND Thirteen≤1.843161383	\rightarrow	Class=1	[440.0, 416.1]	51 : 49	0.045	5
62	Fifteen≤-0.99821052 AND Four≤3.525494857 AND Thirteen≥-2.644400929 AND Sixteen≥-3.03152781 AND	\rightarrow	Class=1	[105.0, 171.7]	38 : 62	0.028	5
32	Twelve≥-2.371878033 Fifteen≤-0.134387922 AND Nine≥-2.503454256 AND Four≤2.860744404 AND Eight≥-2.316872261 AND	7		[, 171.7]	55 . 02		
63	Twelve>-2.336387324	\rightarrow	Class=1	[324.0, 250.5]	56 : 44	0.030	5
64	Seven≤1.008731794 AND Four≤-0.272268445 AND Fifteen≥-0.117173723 AND Nine≥-2.7679664 AND Fourteen≥-1.800287337	\rightarrow	Class=1	[534.0, 325.4]	62 : 38	0.035	5
65	Four≥1.710508525 AND Zero≥-2.707082336 AND Seven≥-1.251293866	\rightarrow	Class=1	[161.0, 197.0]	45 : 55	0.037	3
66	Fifteen≤0.758689027 AND Eighteen≥-2.283802758 AND Four≥-1.206855507 AND Nine≤2.116693583	\rightarrow	Class=1	[818.0, 335.8]	71 : 29	0.031	4
67	Seven≤1.00044999 AND Four≤-0.503178041 AND Sixteen≤2.49467269 AND Fifteen≥0.478049314	\rightarrow	Class=1	[420.0, 196.9]	68 : 32	0.028	4
68	Twelve≤0.879891738 AND Four≥1.950910025 AND Seven≥-2.203840513 AND Six≤1.90958501 AND Two≤2.264960327	\rightarrow	Class=1	[143.0, 89.9]	61 : 39	0.017	5
69	Four≥1.218307019 AND Two≤1.959759189 AND Seven≥-1.585707508 AND Eight≥-2.060783845 AND Nine≤2.648151592	\rightarrow	Class=1	[327.0, 142.7]	70 : 30	0.023	5
70	Four≤-2.219562667 AND Fifteen≥1.846150295 AND Three≤2.633337493 AND Twelve≥-1.856728419 AND Six≥-1.583603457	\rightarrow	Class=1	[39.0, 38.1]	51 : 49	0.009	5
71	Eleven<-0.309323881 AND Seven<0.999287594 AND Four<0.111130868 AND Seven<-0.532549987 AND	\rightarrow	Class=1	[84.0, 49.4]	63 : 37	0.010	5
	Eight≤2.308310514 Five≤0.333495067 AND Sixteen≥-0.985969793 AND Twelve≤0.886310019 AND Eight≥-1.202219687 AND						
72	Six>-0.978645898	\rightarrow	Class=1	[690.0, 141.4]	83 : 17	0.009	5

73	Fifteen≤-2.650595749 AND Two≥-2.141902283	\rightarrow	Class=1	[3.0, 21.0]	15 : 85	0.006	2
74	Three≥0.881893522 AND One≥-0.732015931 AND Eight≤1.269041936 AND Two≥-1.973881506 AND Eleven≤2.031222814	\rightarrow	Class=1	[263.0, 57.9]	82 : 18	0.007	5
75	Three≤-0.048497805 AND Eleven≤0.669268214 AND Six≥-1.622011705 AND Nine≤1.328168056 AND Seven≥-3.016132051	\rightarrow	Class=1	[688.0, 117.9]	85 : 15	0.008	5
76	Three≥-0.70274373 AND Seven≤0.923578748 AND Four≤-0.015822588 AND Fifteen≥-0.66854705 AND Sixteen≥-2.523263224	\rightarrow	Class=1	[487.0, 99.3]	83 : 17	0.013	5
77	Fifteen≤-2.289481746	\rightarrow	Class=1	[12.0, 17.5]	41 : 59	0.005	1
78	Fifteen≤-0.708256709 AND Four≤2.965829901 AND Eight≥-2.385840409 AND Thirteen≥-2.644400929 AND Six≥-2.457983625	\rightarrow	Class=1	[150.0, 48.9]	75 : 25	0.011	5
79	Four≥2.395054669 AND Fifteen≥0.25762476 AND Seven≥-2.203840513 AND Three≥-2.158462583	\rightarrow	Class=1	[1.0, 23.6]	8:92	0.008	4
80	Four≥1.043009895 AND Nine≤2.648151592 AND Seven≥-0.97145769 AND Six≤2.558306276	\rightarrow	Class=1	[249.0, 69.5]	78 : 22	0.015	4
81	Four≤-1.153021978 AND Fifteen≥0.660482199 AND Seven≤0.186257234	\rightarrow	Class=1	[153.0, 41.0]	79 : 21	0.009	3
82	Sixteen≤-0.072788578 AND One≥-1.757272303 AND Seventeen≤0.563462753 AND Zero≥-1.476782214 AND Twelve≤1.740374933	\rightarrow	Class=1	[671.0, 68.3]	91 : 9	0.004	5
83	Ten≤-0.770289084 AND Fifteen≤0.276165411 AND Four≤1.982364948 AND Eleven≤2.575112153 AND Twelve≤1.544130895	\rightarrow	Class=1	[87.0, 18.0]	82 : 18	0.004	5
84	Seventeen≥0.932716755 AND Eight≥-0.757416822 AND Eighteen≥-1.974492444 AND Seven≤1.826803491 AND Seventeen≤2.992275957	\rightarrow	Class=1	[269.0, 30.5]	90 : 10	0.004	5
85	Twelve≤-0.272816224 AND Ten≤1.564840404 AND Seventeen≥-0.615525901 AND Eighteen≥-0.902478475 AND Six≥-1.600690519	\rightarrow	Class=1	[450.0, 41.7]	91 : 9	0.004	5
86	Twelve≥-1.032067454 AND Thirteen≤-0.627517102 AND Ten≤1.882415741 AND Fourteen≥-2.521981885 AND Six≥-2.497897796	\rightarrow	Class=1	[480.0, 42.2]	92 : 8	0.004	5
87	Ten≥0.836271153 AND Seven≤0.828096747 AND Seventeen≤0.969035397 AND Six≤0.992421787 AND Eight≥-1.348841734	\rightarrow	Class=1	[172.0, 17.8]	90 : 10	0.003	5
88	Sixteen≥0.987962582 AND Zero≤2.641271121 AND Seven≥-2.567283881 AND Five≤1.158816077 AND Nine≥-1.213238165	\rightarrow	Class=1	[270.0, 21.8]	92 : 8	0.002	5
89	Sixteen≤0.764735595 AND Thirteen≥0.571377082 AND Fifteen≤0.924327919 AND Four≥-1.615308607 AND Eight≥-1.934683404	\rightarrow	Class=1	[197.0, 22.1]	90 : 10	0.004	5
90	Six≤-1.375606325 AND Thirteen≥-0.572376416 AND Eight≤1.815005424 AND Three≥-0.746116592 AND Eighteen≥-0.174673501	\rightarrow	Class=1	[55.0, 8.0]	86 : 14	0.002	5
91	Twelve≥-1.032067454 AND Sixteen≥-0.502157975 AND Seven≥-3.106421904 AND Fourteen≤0.241072626 AND Eleven≥-1.796976568	\rightarrow	Class=1	[787.0, 49.3]	94 : 6	0.004	5
92	Fourteen≥1.923918479 AND Five≥-0.564777892 AND Nine≤0.835496127	\rightarrow	Class=1	[25.0, 4.7]	82 : 18	0.001	3
93	Eighteen≤0.203068093 AND Seven≤1.374580151 AND Four≤-0.473713922 AND Fifteen≥-0.140531127 AND Five≤1.847516446	\rightarrow	Class=1	[351.0, 26.3]	93 : 7	0.004	5
94	Nine≥0.99918523 AND Ten≤0.962840083 AND Seven≥-2.060236633 AND Sixteen≤2.488081496 AND Fifteen≤0.520257925	\rightarrow	Class=1	[97.0, 8.6]	91 : 9	0.002	5
95	Four≥3.174541224 AND Fifteen≥0.462339243	\rightarrow	Class=1	[0.0, 3.3]	19 : 81	0.001	2
96	Four≥1.043009895 AND Seven≥0.235529135	\rightarrow	Class=1	[52.0, 16.5]	75 : 25	0.005	2
97	Four≤-2.454392947 AND Fifteen≥2.12282303 AND Four≥-4.079436703 AND Twelve≥-1.856728419 AND Four≥-3.708491097	\rightarrow	Class=1	[18.0, 4.1]	79 : 21	0.001	5
98	Fifteen≤-2.650595749	\rightarrow	Class=1	[4.0, 3.3]	54 : 46	0.001	1
99	Fifteen≤-0.007783632 AND Four≤1.926688751	\rightarrow	Class=1	[330.0, 28.9]	92 : 8	0.006	2
	+ 48 more						