October 1995

**\*C\***
EG continues its series of complete lists of reciprocal zugzwangs in endings up to 5 men with no more than one pawn. The following, extracted from the appropriate Ken Thompson database by ace programmer Lars Rasmussen of Denmark, displays for the first time all 3130 reci-zugs in the endgame two knights against pawn. The list reads as follows: wK,wS,wS; bK,bP, result when white has the move; result when black has to move. In this = denotes a draw and a number gives the number of moves for the other player needs to win.

```
 1: a8,a6,b8;  b6,a7;  =;59        44: h7,c7,g8;  f7,a6;  =;97        87: a5,c1,d3;  d2,a6;  =;88
 2: b8,a8,c2;  c6,a7;  =;96        45: c6,g5,h8;  b8,a6;  =;20        88: d5,c1,h7;  b6,a6;  =;81
 3: c8,a8,d7;  d6,a7;  =;94        46: c6,f4,h8;  b8,a6;  =;20        89: d5,c1,h5;  b6,a6;  =;81
 4: b7,c8,d1;  a5,a7;  =;86        47: c6,g3,h8;  b8,a6;  =;20        90: d5,c1,h3;  b6,a6;  =;81
 5: a6,a8,c7;  b8,a7;  =;70        48: c6,f2,h8;  b8,a6;  =;20        91: d5,b3,h3;  b5,a6;  =;85
 6: a6,a8,c6;  c8,a7;  =;71        49: c6,g1,h8;  b8,a6;  =;20        92: d5,c1,f8;  b5,a6;  =;83
 7: a6,c7,e8;  d8,a7;  =;98        50: c6,a3,c5;  c3,a6;  =;94        93: d5,c1,h2;  b5,a6;  =;85
 8: a6,c8,d6;  c7,a7;  =;94        51: d6,f6,g3;  d8,a6;  =;29        94: d5,d1,g1;  b4,a6;  =;73
 9: a6,c7,d5;  c6,a7;  =;94        52: d6,f6,g1;  d8,a6;  =;29        95: h5,e7,h4;  h3,a6;  =;96
10: a6,c4,d6;  c5,a7;  =;95        53: d6,f2,f6;  d8,a6;  =;29        96: h5,f6,h4;  h3,a6;  =;98
11: a6,c4,e5;  d5,a7;  =;95        54: d6,c1,f6;  d8,a6;  =;29        97: a4,c7,d5;  d7,a6;  =;96
12: a6,b3,c5;  b4,a7;  =;99        55: d6,b3,h3;  b6,a6;  =;86        98: d4,d8,f3;  d1,a6;  =;93
13: a6,c5,e4;  d4,a7;  =;86        56: d6,d3,h7;  b6,a6;  =;62        99: f4,c1,f2;  h5,a6;  =;91
14: a6,b2,c4;  b3,a7;  =;94        57: d6,d3,h5;  b6,a6;  =;46       100: f4,c1,h2;  h5,a6;  =;91
15: a6,b1,c3;  b2,a7;  =;87        58: d6,d3,h3;  b6,a6;  =;46       101: f4,c7,e3;  d4,a6;  =;97
16: a6,c1,d3;  d2,a7;  =;90        59: d6,g3,g5;  b6,a6;  =;75       102: c3,b8,c8;  b5,a6;  =;95
17: c6,a8,c7;  b8,a7;  =;22        60: d6,a2,h1;  b6,a6;  =;92       103: c3,b8,e8;  b5,a6;  =;95
18: d6,b8,c1;  b6,a7;  =;98        61: d6,f2,g5;  b6,a6;  =;72       104: d3,b8,h2;  d1,a6;  =;79
19: d6,c1,d3;  b5,a7;  =;97        62: d6,c1,h8;  b6,a6;  =;94       105: d3,d8,h2;  d1,a6;  =;79
20: a5,c7,e8;  d7,a7;  =;99        63: d6,c1,g7;  b6,a6;  =;84       106: e3,a7,d2;  c3,a6;  =;95
21: d3,c8,d7;  d5,a7;  =;96        64: d6,c1,h6;  b6,a6;  =;86       107: e3,a7,e1;  c3,a6;  =;97
22: e3,c8,f4;  e5,a7;  =;92        65: d6,c1,g5;  b6,a6;  =;72       108: e3,c7,e1;  c3,a6;  =;97
23: f3,c1,f2;  h4,a7;  =;93        66: d6,c1,h4;  b6,a6;  =;90       109: e3,b8,h8;  g2,a6;  =;90
24: c8,b3,c7;  c6,a6;  =;95        67: d6,c1,g3;  b6,a6;  =;72       110: e3,d8,h8;  g2,a6;  =;95
25: d8,g3,g5;  b8,a6;  =;77        68: d6,c1,f2;  b6,a6;  =;72       111: f3,c7,e3;  d3,a6;  =;96
26: d8,f2,g5;  b8,a6;  =;74        69: d6,c1,h2;  b6,a6;  =;86       112: f2,c7,e1;  d2,a6;  =;98
27: d8,g1,g5;  b8,a6;  =;77        70: d6,c1,g1;  b6,a6;  =;73       113: a1,a3,b1;  b3,a6;  =;95
28: d8,b3,c7;  d6,a6;  =;96        71: d6,g1,g5;  b6,a6;  =;75       114: f1,a2,e1;  d2,a6;  =;98
29: f8,f7,g7;  f6,a6;  =;97        72: d6,c1,c6;  b5,a6;  =;54       115: d8,d5,f8;  b8,a5;  =;37
30: c7,a7,d6;  d5,a6;  =;93        73: d6,c7,e5;  d4,a6;  =;89       116: d8,d5,g7;  b8,a5;  =;37
31: d7,b3,h3;  b7,a6;  =;87        74: e6,c1,d7;  b5,a6;  =;96       117: d8,b3,g5;  b8,a5;  =;85
32: d7,g3,g5;  b7,a6;  =;76        75: e6,c7,f5;  e4,a6;  =;92       118: d8,d3,g5;  b8,a5;  =;63
33: d7,f2,g5;  b7,a6;  =;73        76: a5,c7,e8;  d8,a6;  =;97       119: d8,e2,g5;  b8,a5;  =;76
34: d7,c1,f8;  b7,a6;  =;85        77: a5,a7,c8;  b7,a6;  =;89       120: d8,c1,h7;  b8,a5;  =;85
35: d7,c1,h2;  b7,a6;  =;87        78: a5,a7,c6;  b7,a6;  =;90       121: d8,c1,h5;  b8,a5;  =;85
36: d7,c1,g1;  b7,a6;  =;74        79: a5,a7,c5;  c7,a6;  =;85       122: d8,c1,h3;  b8,a5;  =;85
37: d7,g1,g5;  b7,a6;  =;76        80: a5,c7,d5;  c6,a6;  =;93       123: e8,b3,d4;  c8,a5;  =;33
38: d7,a2,g5;  b6,a6;  =;83        81: a5,c4,d6;  c5,a6;  =;94       124: d7,c1,h2;  b8,a5;  =;85
39: d7,a2,g3;  b6,a6;  =;92        82: a5,c5,e6;  d5,a6;  =;95       125: d7,c1,g1;  b8,a5;  =;74
40: d7,c1,c6;  b6,a6;  =;56        83: a5,c5,e4;  d4,a6;  =;85       126: d7,b3,g5;  b7,a5;  =;84
41: e7,c1,g1;  a7,a6;  =;75        84: a5,c4,d2;  d3,a6;  =;92       127: d7,b3,c1;  b7,a5;  =;84
42: e7,c1,d8;  c7,a6;  =;75        85: a5,a2,b4;  b2,a6;  =;89       128: d7,d3,g5;  b7,a5;  =;62
43: f7,a7,e8;  d7,a6;  =;94        86: a5,b1,c3;  b2,a6;  =;85       129: d7,a2,g5;  b7,a5;  =;73
```

```
130: d7,a2,h4; b7,a5; =;92        204: d6,c1,d3; b6,a5; =;45        278: f5,a2,f7; h5,a5; =;68
131: d7,a2,g3; b7,a5; =;92        205: d6,c1,f3; b6,a5; =;83        279: f5,a2,g4; h5,a5; =;66
132: d7,a2,h2; b7,a5; =;92        206: d6,c1,h3; b6,a5; =;83        280: f5,e2,g8; h5,a5; =;64
133: d7,a2,g1; b7,a5; =;92        207: d6,c1,e2; b6,a5; =;72        281: f5,e2,f7; h5,a5; =;68
134: d7,e2,g5; b7,a5; =;75        208: d6,c1,d1; b6,a5; =;72        282: f5,e2,g4; h5,a5; =;64
135: d7,c1,h7; b7,a5; =;84        209: e6,a2,c1; a6,a5; =;72        283: f5,d1,g8; h5,a5; =;65
136: d7,c1,e6; b7,a5; =;84        210: e6,c1,e2; a6,a5; =;73        284: f5,d1,f7; h5,a5; =;68
137: d7,c1,h5; b7,a5; =;84        211: e6,c1,d1; a6,a5; =;74        285: f5,d1,g4; h5,a5; =;65
138: d7,c1,f3; b7,a5; =;84        212: f6,a2,a8; f2,a5; =;90        286: f5,a2,d8; h4,a5; =;91
139: d7,c1,h3; b7,a5; =;84        213: f6,a2,c8; f2,a5; =;90        287: f5,a2,h8; h4,a5; =;91
140: d7,c1,e2; b7,a5; =;73        214: f6,a2,b7; f2,a5; =;92        288: f5,a2,h6; h4,a5; =;91
141: d7,a2,e4; b6,a5; =;94        215: g6,d5,e4; g4,a5; =;75        289: f5,a2,g5; h4,a5; =;91
142: e7,c1,e2; a7,a5; =;74        216: g6,d5,e2; g4,a5; =;75        290: f5,a2,f2; h4,a5; =;93
143: e7,a2,d8; c7,a5; =;74        217: g6,b3,d5; g4,a5; =;75        291: f5,a2,h2; h4,a5; =;93
144: f7,a2,a8; f1,a5; =;91        218: h6,d5,e4; h4,a5; =;76        292: f5,a2,a8; f3,a5; =;90
145: f7,a2,c8; f1,a5; =;91        219: h6,d5,e2; h4,a5; =;76        293: f5,a2,c8; f3,a5; =;90
146: f7,a2,b7; f1,a5; =;92        220: h6,b3,d5; h4,a5; =;76        294: f5,a2,b7; f3,a5; =;92
147: c6,d5,h8; b8,a5; =;19        221: h6,d1,d5; h4,a5; =;76        295: f5,a2,d5; f3,a5; =;70
148: c6,e4,h8; b8,a5; =;19        222: b5,a6,g4; a7,a5; =;34        296: f5,a2,d1; f3,a5; =;87
149: c6,b3,h8; b8,a5; =;19        223: b5,c6,f6; b7,a5; =;97        297: f5,d1,d5; f3,a5; =;79
150: c6,d3,h8; b8,a5; =;19        224: c5,a2,g8; b7,a5; =;31        298: g5,d5,h4; g3,a5; =;98
151: c6,e2,h8; b8,a5; =;19        225: c5,d3,f6; c7,a5; =;30        299: g5,b3,d4; g3,a5; =;63
152: c6,d1,h8; b8,a5; =;19        226: c5,b5,b7; b3,a5; =;88        300: g5,c1,e7; g3,a5; =;83
153: c6,a6,f6; c8,a5; =;29        227: d5,a2,e6; b6,a5; =;32        301: g5,d1,d5; g3,a5; =;71
154: c6,b3,b7; c8,a5; =; 9        228: d5,a2,e2; b6,a5; =;89        302: h5,d5,h4; h3,a5; =;86
155: c6,b3,f7; c8,a5; =; 9        229: d5,e2,e6; b6,a5; =;72        303: h5,e4,h4; h3,a5; =;64
156: c6,b3,f6; c8,a5; =;29        230: d5,c1,d8; b6,a5; =;80        304: h5,b3,d4; h3,a5; =;64
157: c6,d3,f6; c8,a5; =;29        231: d5,c1,f8; b6,a5; =;83        305: h5,e2,h4; h3,a5; =;64
158: c6,e2,f6; c8,a5; =;29        232: d5,c1,g7; b6,a5; =;83        306: h5,d1,h4; h3,a5; =;64
159: c6,d1,f6; c8,a5; =;29        233: d5,c1,g5; b6,a5; =;80        307: a4,a7,b5; b7,a5; =;96
160: d6,c1,h7; b8,a5; =;63        234: d5,c1,f4; b6,a5; =;80        308: a4,a6,c5; b6,a5; =;98
161: d6,a6,d5; c8,a5; =;27        235: d5,b3,g5; b5,a5; =;82        309: a4,a8,e8; c6,a5; =;99
162: d6,a2,g8; c8,a5; =;29        236: d5,b3,c1; b5,a5; =;82        310: a4,a8,e6; c6,a5; =;99
163: d6,c1,f6; c8,a5; =;29        237: d5,d3,f4; b5,a5; =;44        311: a4,a8,c4; c6,a5; =;97
164: d6,a8,c1; d8,a5; =;89        238: d5,a2,b8; b5,a5; =;90        312: a4,a8,b8; d6,a5; =;98
165: d6,a6,f6; d8,a5; =;28        239: d5,a2,h2; b5,a5; =;90        313: a4,a6,b8; d6,a5; =;98
166: d6,a6,c1; d8,a5; =;89        240: d5,a2,g1; b5,a5; =;90        314: a4,g8,h8; e6,a5; =;100
167: d6,d5,f6; d8,a5; =;28        241: d5,c1,d7; b5,a5; =;82        315: a4,a8,b6; c5,a5; =;98
168: d6,e4,f6; d8,a5; =;28        242: d5,c1,h7; b5,a5; =;82        316: a4,b6,c4; c5,a5; =;96
169: d6,b3,c7; d8,a5; =;24        243: d5,c1,c6; b5,a5; =;53        317: a4,c6,e5; d5,a5; =;98
170: d6,b3,g7; d8,a5; =;24        244: d5,c1,e6; b5,a5; =;82        318: a4,h7,h8; f5,a5; =;101
171: d6,b3,f6; d8,a5; =;28        245: d5,c1,h5; b5,a5; =;82        319: a4,h1,h2; f4,a5; =;102
172: d6,d3,f6; d8,a5; =;28        246: d5,c1,d3; b5,a5; =;44        320: a4,c4,e3; d3,a5; =;94
173: d6,a2,f6; d8,a5; =;28        247: d5,c1,f3; b5,a5; =;82        321: a4,g1,h1; e3,a5; =;104
174: d6,e2,f6; d8,a5; =;28        248: d5,c1,h3; b5,a5; =;82        322: a4,a2,c4; c2,a5; =;93
175: d6,c1,d5; d8,a5; =;89        249: d5,b2,c1; b4,a5; =;83        323: a4,a2,e5; d2,a5; =;94
176: d6,d1,f6; d8,a5; =;28        250: d5,c1,d4; b4,a5; =;87        324: a4,a2,b2; d2,a5; =;94
177: d6,c6,e6; b7,a5; =;29        251: d5,d1,e2; b4,a5; =;72        325: a4,a2,g1; d2,a5; =;102
178: d6,c1,f8; b7,a5; =;84        252: d5,c1,f5; f2,a5; =;91        326: c4,c1,e6; b6,a5; =;92
179: d6,c1,g7; b7,a5; =;84        253: e5,a2,d6; d3,a5; =;90        327: c4,a6,f3; c2,a5; =;91
180: d6,c1,g5; b7,a5; =;62        254: e5,a2,b7; e3,a5; =;91        328: c4,c6,f3; c2,a5; =;91
181: d6,a6,c7; b6,a5; =;28        255: e5,a2,f7; e3,a5; =;91        329: d4,a6,g1; d2,a5; =;84
182: d6,b3,g5; b6,a5; =;83        256: e5,a2,c6; e3,a5; =;93        330: d4,a6,f3; d1,a5; =;92
183: d6,b3,c1; b6,a5; =;83        257: e5,a2,e4; e3,a5; =;91        331: d4,c6,f3; d1,a5; =;92
184: d6,d3,g5; b6,a5; =;61        258: e5,a2,b3; e3,a5; =;93        332: e4,b3,f7; g4,a5; =;75
185: d6,d3,f4; b6,a5; =;45        259: f5,a6,g8; h5,a5; =;86        333: e4,a2,d8; g3,a5; =;90
186: d6,a2,b8; b6,a5; =;91        260: f5,a6,f7; h5,a5; =;85        334: e4,a2,g5; g3,a5; =;90
187: d6,a2,d8; b6,a5; =;73        261: f5,a6,g4; h5,a5; =;85        335: e4,a6,f5; f2,a5; =;74
188: d6,a2,g5; b6,a5; =;72        262: f5,c6,g8; h5,a5; =;74        336: e4,c6,f5; f2,a5; =;74
189: d6,a2,h4; b6,a5; =;91        263: f5,c6,f7; h5,a5; =;80        337: e4,d5,f5; f2,a5; =;66
190: d6,a2,g3; b6,a5; =;91        264: f5,c6,g4; h5,a5; =;74        338: e4,b3,f5; f2,a5; =;74
191: d6,a2,f2; b6,a5; =;94        265: f5,d5,g8; h5,a5; =;66        339: f4,c1,g4; h5,a5; =;90
192: d6,a2,h2; b6,a5; =;91        266: f5,d5,f7; h5,a5; =;68        340: f4,a6,f7; h4,a5; =;86
193: d6,a2,c1; b6,a5; =;70        267: f5,d5,g4; h5,a5; =;66        341: f4,a6,g7; h4,a5; =;79
194: d6,a2,g1; b6,a5; =;91        268: f5,e4,g8; h5,a5; =;64        342: f4,a6,g3; h4,a5; =;79
195: d6,e2,g5; b6,a5; =;74        269: f5,e4,f7; h5,a5; =;68        343: f4,c6,f7; h4,a5; =;81
196: d6,c1,e8; b6,a5; =;83        270: f5,e4,g4; h5,a5; =;64        344: f4,c6,g7; h4,a5; =;78
197: d6,c1,f7; b6,a5; =;83        271: f5,b3,g8; h5,a5; =;70        345: f4,c6,g3; h4,a5; =;78
198: d6,c1,h7; b6,a5; =;83        272: f5,b3,f7; h5,a5; =;72        346: f4,d5,f7; h4,a5; =;69
199: d6,c1,c6; b6,a5; =;54        273: f5,b3,g4; h5,a5; =;70        347: f4,d5,g7; h4,a5; =;57
200: d6,c1,e6; b6,a5; =;83        274: f5,d3,g8; h5,a5; =;66        348: f4,d5,g3; h4,a5; =;57
201: d6,c1,f5; b6,a5; =;83        275: f5,d3,f7; h5,a5; =;70        349: f4,e4,f7; h4,a5; =;69
202: d6,c1,h5; b6,a5; =;83        276: f5,d3,g4; h5,a5; =;66        350: f4,e4,g7; h4,a5; =;57
203: d6,c1,e4; b6,a5; =;71        277: f5,a2,g8; h5,a5; =;66        351: f4,e4,g3; h4,a5; =;57
```

720

```
352: f4,b3,f7; h4,a5; =;73        426: e1,b3,f7; g1,a5; =;78        500: d6,a2,e4; b6,a4; =;93
353: f4,b3,g7; h4,a5; =;57        427: e1,c1,d8; g1,a5; =;95        501: d6,a2,f3; b6,a4; =;90
354: f4,b3,g3; h4,a5; =;57        428: e1,c1,h8; g1,a5; =;95        502: d6,a2,e2; b6,a4; =;90
355: f4,d3,f7; h4,a5; =;71        429: d8,b4,d4; b8,a4; =;31        503: d6,a2,d1; b6,a4; =;93
356: f4,d3,g7; h4,a5; =;57        430: d8,c3,f8; b8,a4; =;36        504: d6,c1,c7; b6,a4; =;27
357: f4,d3,g3; h4,a5; =;57        431: d8,c3,g7; b8,a4; =;36        505: d6,c1,g5; b6,a4; =;60
358: f4,a2,g7; h4,a5; =;55        432: d8,c3,g5; b8,a4; =;36        506: d6,c1,d4; b6,a4; =;29
359: f4,a2,g3; h4,a5; =;55        433: d8,c3,d4; b8,a4; =;31        507: d6,c1,f4; b6,a4; =;44
360: f4,e2,f7; h4,a5; =;69        434: d8,a2,e2; b8,a4; =;92        508: d6,c1,c3; b6,a4; =;27
361: f4,e2,g7; h4,a5; =;56        435: d8,c1,g5; b8,a4; =;62        509: e6,a2,d1; a6,a4; =;95
362: f4,e2,g3; h4,a5; =;56        436: d8,c1,d4; b8,a4; =;31        510: e6,c1,c3; a6,a4; =;29
363: f4,c1,d8; h4,a5; =;91        437: e8,b4,d4; c8,a4; =;32        511: f6,a2,b6; f2,a4; =;89
364: f4,c1,h8; h4,a5; =;91        438: e8,c3,d8; c8,a4; =;33        512: f6,a2,d6; f2,a4; =;89
365: f4,c1,h6; h4,a5; =;91        439: e8,c3,d4; c8,a4; =;32        513: f6,a2,a5; f2,a4; =;89
366: f4,c1,g5; h4,a5; =;91        440: e8,c1,d4; c8,a4; =;32        514: f6,a2,b2; f2,a4; =;88
367: f4,c1,f2; h4,a5; =;91        441: d7,b4,c8; b7,a4; =;15        515: f6,a2,d2; f2,a4; =;89
368: f4,c1,h2; h4,a5; =;91        442: d7,b4,d4; b7,a4; =;30        516: g6,b4,d5; g4,a4; =;73
369: f4,d1,f7; h4,a5; =;69        443: d7,c3,f8; b7,a4; =;35        517: g6,c3,d5; g4,a4; =;71
370: f4,d1,g7; h4,a5; =;57        444: d7,c3,g7; b7,a4; =;35        518: g6,c1,d5; g4,a4; =;73
371: f4,d1,g3; h4,a5; =;57        445: d7,c3,g5; b7,a4; =;35        519: g6,a2,d5; h4,a4; =;72
372: f4,a6,e2; h3,a5; =;80        446: d7,c3,d4; b7,a4; =;30        520: h6,b4,d5; h4,a4; =;74
373: f4,b3,e2; h3,a5; =;60        447: d7,a2,e6; b7,a4; =;32        521: h6,c3,d5; h4,a4; =;72
374: d3,b1,c3; b2,a5; =;62        448: d7,a2,e2; b7,a4; =;91        522: h6,c1,d5; h4,a4; =;74
375: d3,b1,d2; b2,a5; =;60        449: d7,c1,c8; b7,a4; =;15        523: a5,b4,f6; a7,a4; =;31
376: d3,c1,f5; f2,a5; =;92        450: d7,c1,g5; b7,a4; =;61        524: a5,c1,f6; a7,a4; =;31
377: d3,a6,h2; d1,a5; =;86        451: d7,c1,d4; b7,a4; =;30        525: b5,a5,c3; a7,a4; =;19
378: d3,c6,h2; d1,a5; =;78        452: e7,c3,d8; c7,a4; =;32        526: b5,a5,c1; a7,a4; =;19
379: d3,a6,h3; e1,a5; =;91        453: f7,a2,b6; f1,a4; =;90        527: b5,b4,f6; b7,a4; =;30
380: e3,a6,f7; g3,a5; =;88        454: f7,a2,d6; f1,a4; =;90        528: b5,c3,f6; b7,a4; =;30
381: e3,c6,f7; g3,a5; =;84        455: f7,a2,a5; f1,a4; =;90        529: b5,c1,f6; b7,a4; =;30
382: e3,d5,f7; g3,a5; =;71        456: f7,a2,b2; f1,a4; =;90        530: c5,a2,f6; b7,a4; =;30
383: e3,b3,f7; g3,a5; =;76        457: a6,c1,f6; a8,a4; =;30        531: c5,a2,c3; b7,a4; =;90
384: e3,d3,f7; g3,a5; =;73        458: b6,b4,f6; b8,a4; =;29        532: c5,b4,f6; c7,a4; =;29
385: e3,a2,f7; g3,a5; =;71        459: b6,c1,f6; b8,a4; =;29        533: c5,c1,f6; c7,a4; =;29
386: e3,c1,d8; g3,a5; =;93        460: c6,a5,c3; b8,a4; =;18        534: d5,b4,e6; b6,a4; =;31
387: e3,c1,h8; g3,a5; =;93        461: c6,a5,c1; b8,a4; =;18        535: d5,c3,e6; b6,a4; =;29
388: e3,c1,h6; g3,a5; =;92        462: c6,b4,h8; b8,a4; =;18        536: d5,a2,d4; b6,a4; =;88
389: e3,c1,g5; g3,a5; =;93        463: c6,c3,h8; b8,a4; =;18        537: d5,a2,c3; b6,a4; =;91
390: e3,d1,f7; g3,a5; =;71        464: c6,c1,h8; b8,a4; =;18        538: d5,c1,e6; b6,a4; =;31
391: e3,a6,d8; g2,a5; =;89        465: c6,b7,c3; c8,a4; =; 8        539: d5,a2,a8; b5,a4; =;28
392: e3,a6,h8; g2,a5; =;89        466: c6,b7,c1; c8,a4; =; 8        540: d5,a2,d7; b5,a4; =;33
393: e3,a6,e2; g2,a5; =;82        467: c6,b4,b7; c8,a4; =; 8        541: d5,a2,e6; b5,a4; =;30
394: e3,c6,d8; g2,a5; =;85        468: c6,b4,f7; c8,a4; =; 8        542: d5,a2,f3; b5,a4; =;89
395: e3,c6,h8; g2,a5; =;94        469: c6,b4,f6; c8,a4; =;28        543: d5,a2,e2; b5,a4; =;89
396: e3,b3,d8; g2,a5; =;77        470: c6,c3,f7; c8,a4; =; 8        544: d5,a2,d1; b5,a4; =;92
397: e3,b3,h8; g2,a5; =;78        471: c6,c3,f6; c8,a4; =;28        545: d5,c1,g5; b5,a4; =;59
398: e3,b3,e2; g2,a5; =;61        472: c6,c1,f7; c8,a4; =; 8        546: d5,c1,f4; b5,a4; =;43
399: f3,a6,f7; h3,a5; =;87        473: c6,c1,f6; c8,a4; =;28        547: d5,c3,e2; b4,a4; =;58
400: f3,a6,g2; h3,a5; =;44        474: d6,a2,h7; b8,a4; =;33        548: d5,c1,e2; b4,a4; =;42
401: f3,c6,f7; h3,a5; =;82        475: d6,a2,f7; c8,a4; =;33        549: d5,c1,d1; b4,a4; =;52
402: f3,c6,g2; h3,a5; =;44        476: d6,a2,f6; c8,a4; =;28        550: d5,a2,d6; d3,a4; =;89
403: f3,e4,f7; h3,a5; =;70        477: d6,a2,c3; c8,a4; =;88        551: d5,a2,a5; d3,a4; =;91
404: f3,b3,f7; h3,a5; =;74        478: d6,b4,c7; d8,a4; =;23        552: f5,b4,g8; h5,a4; =;65
405: f3,b3,g2; h3,a5; =;42        479: d6,b4,g7; d8,a4; =;23        553: f5,b4,f7; h5,a4; =;71
406: f3,c1,d8; h3,a5; =;91        480: d6,b4,f6; d8,a4; =;27        554: f5,b4,g4; h5,a4; =;65
407: f3,d1,f7; h3,a5; =;70        481: d6,c3,c7; d8,a4; =;23        555: f5,c3,g8; h5,a4; =;63
408: a2,a1,f5; c1,a5; =;98        482: d6,c3,g7; d8,a4; =;23        556: f5,c3,f7; h5,a4; =;67
409: a2,a1,f1; c1,a5; =;98        483: d6,c3,f6; d8,a4; =;27        557: f5,c3,g4; h5,a4; =;63
410: d2,c1,h5; b2,a5; =;13        484: d6,c1,c7; d8,a4; =;23        558: f5,c1,g8; h5,a4; =;67
411: d2,c1,h3; b2,a5; =;13        485: d6,c1,g7; d8,a4; =;23        559: f5,c1,f7; h5,a4; =;69
412: e2,a6,f7; g2,a5; =;89        486: d6,c1,f6; d8,a4; =;27        560: f5,c1,g4; h5,a4; =;67
413: e2,c6,f7; g2,a5; =;85        487: d6,a2,f8; b7,a4; =;32        561: f5,a2,f7; h4,a4; =;70
414: e2,e4,f7; g2,a5; =;72        488: d6,a2,g7; b7,a4; =;32        562: f5,a2,g7; h4,a4; =;91
415: e2,b3,f7; g2,a5; =;77        489: d6,a2,g5; b7,a4; =;32        563: f5,b4,d5; f3,a4; =;71
416: e2,c1,d8; g2,a5; =;94        490: d6,a2,d4; b7,a4; =;30        564: f5,c3,d5; f3,a4; =;69
417: e2,c1,h8; g2,a5; =;94        491: d6,b4,c7; b6,a4; =;27        565: f5,c3,g4; f3,a4; =;67
418: e2,a6,h8; g1,a5; =;90        492: d6,b4,d4; b6,a4; =;29        566: f5,a2,b6; f3,a4; =;89
419: e2,b3,h8; g1,a5; =;78        493: d6,c3,d8; b6,a4; =;31        567: f5,a2,d6; f3,a4; =;89
420: f2,c1,g2; h3,a5; =;95        494: d6,c3,f8; b6,a4; =;34        568: f5,a2,a5; f3,a4; =;89
421: f2,a2,e1; d2,a5; =;97        495: d6,c3,g7; b6,a4; =;34        569: f5,a2,b4; f3,a4; =;88
422: c1,a1,c2; a2,a5; =; 9        496: d6,c3,g5; b6,a4; =;34        570: f5,a2,b2; f3,a4; =;86
423: e1,a6,f7; g1,a5; =;90        497: d6,c3,d4; b6,a4; =;29        571: f5,c1,d5; f3,a4; =;71
424: e1,c6,f7; g1,a5; =;86        498: d6,a2,e6; b6,a4; =;31        572: f5,c1,g4; f3,a4; =;69
425: e1,e4,f7; g1,a5; =;73        499: d6,a2,f5; b6,a4; =;90        573: f5,a2,e8; g3,a4; =;90
```

```
574: f5,a2,d5; g3,a4; =;70      648: e2,c3,f7; g2,a4; =;71      722: c3,a5,c2; a2,a3; =; 3
575: g5,b4,d5; g3,a4; =;72      649: e2,c1,f7; g2,a4; =;73      723: c3,c2,c5; a2,a3; =; 3
576: g5,b4,d4; g3,a4; =;62      650: a1,a3,b1; b3,a4; =;92      724: c3,c2,d4; a2,a3; =; 3
577: g5,c3,d5; g3,a4; =;70      651: e1,b4,f7; g1,a4; =;77      725: c3,a1,c2; a2,a3; =; 3
578: g5,c3,d4; g3,a4; =;60      652: e1,c3,f7; g1,a4; =;72      726: c3,b3,b5; b1,a3; =; 4
579: g5,c3,h4; g3,a4; =;62      653: e1,c1,f7; g1,a4; =;74      727: c3,b3,c2; b1,a3; =; 2
580: g5,c1,d5; g3,a4; =;72      654: f1,a2,e1; d2,a4; =;96      728: e3,a2,f7; g3,a3; =;67
581: g5,c1,d4; g3,a4; =;62      655: d8,a2,f8; b8,a3; =;35      729: e3,a2,e2; g2,a3; =;54
582: h5,b4,d5; h3,a4; =;73      656: d8,a2,g7; b8,a3; =;35      730: f3,a2,f7; h3,a3; =;65
583: h5,b4,d4; h3,a4; =;63      657: d8,a2,g5; b8,a3; =;35      731: f3,a2,g2; h3,a3; =;40
584: h5,c3,d5; h3,a4; =;71      658: d8,a2,d4; b8,a3; =;30      732: c2,a1,b7; a2,a3; =; 0
585: h5,c3,d4; h3,a4; =;61      659: e8,a2,d8; c8,a3; =;32      733: c2,a1,d7; a2,a3; =; 0
586: h5,c3,h4; h3,a4; =;63      660: e8,a2,d4; c8,a3; =;31      734: c2,a1,e6; a2,a3; =; 0
587: h5,c1,d5; h3,a4; =;73      661: d7,a2,c8; b7,a3; =;14      735: c2,a1,b5; a2,a3; =; 0
588: h5,c1,d4; h3,a4; =;63      662: d7,a2,f8; b7,a3; =;34      736: c2,a1,f5; a2,a3; =; 0
589: e4,b4,f7; g4,a4; =;74      663: d7,a2,g7; b7,a3; =;34      737: c2,a1,a4; a2,a3; =; 0
590: e4,c3,f7; g4,a4; =;69      664: d7,a2,g5; b7,a3; =;34      738: c2,a1,c4; a2,a3; =; 0
591: e4,c1,f7; g4,a4; =;71      665: d7,a2,c4; b7,a3; =;13      739: c2,a1,e4; a2,a3; =; 0
592: e4,a2,f7; g3,a4; =;71      666: d7,a2,d4; b7,a3; =;29      740: c2,a1,f3; a2,a3; =; 0
593: e4,b4,f5; f2,a4; =;59      667: e7,a2,d8; c7,a3; =;31      741: c2,a1,e2; a2,a3; =; 0
594: e4,c3,f5; f2,a4; =;57      668: e7,a2,d4; c7,a3; =;30      742: c2,a1,b1; a2,a3; =; 0
595: e4,a2,d8; f2,a4; =;72      669: f7,a2,c4; f1,a3; =;69      743: c2,a1,f1; a2,a3; =; 0
596: e4,c1,f5; f2,a4; =;61      670: a6,a2,f6; a8,a3; =;29      744: e2,a2,f7; g2,a3; =;68
597: f4,b4,f7; h4,a4; =;72      671: b6,a2,f6; b8,a3; =;28      745: f2,a2,e1; d2,a3; =;26
598: f4,b4,g7; h4,a4; =;56      672: c6,a2,h8; b8,a3; =;17      746: f2,a2,g1; h2,a3; =;38
599: f4,b4,g3; h4,a4; =;56      673: c6,a2,a5; b8,a3; =;17      747: c1,a1,d2; a2,a3; =; 0
600: f4,c3,f7; h4,a4; =;68      674: c6,a2,b7; c8,a3; =; 7      748: d1,a2,d2; b2,a3; =; 1
601: f4,c3,g7; h4,a4; =;54      675: c6,a2,f7; c8,a3; =; 7      749: e1,a2,f7; g1,a3; =;69
602: f4,c3,g3; h4,a4; =;54      676: c6,a2,f6; c8,a3; =;27      750: f1,a2,g1; h1,a3; =;39
603: f4,c1,f7; h4,a4; =;70      677: d6,a2,c7; d8,a3; =;22      751: b8,a5,f6; d8,b7; =;69
604: f4,c1,g7; h4,a4; =;56      678: d6,a2,g7; d8,a3; =;22      752: b8,b4,f6; d8,b7; =;70
605: f4,c1,g3; h4,a4; =;56      679: d6,a2,f6; d8,a3; =;26      753: a7,b8,c3; a5,b7; =;73
606: f4,b4,e2; h3,a4; =;59      680: d6,a2,d8; b6,a3; =;30      754: a7,c3,d8; a5,b7; =;72
607: f4,c3,e2; h3,a4; =;57      681: d6,a2,f8; b6,a3; =;33      755: a7,c3,e7; a5,b7; =;71
608: f4,c1,e2; h3,a4; =;59      682: d6,a2,c7; b6,a3; =;26      756: a7,c3,e5; a5,b7; =;70
609: a3,c3,d5; a5,a4; =;29      683: d6,a2,g7; b6,a3; =;33      757: c7,b2,d6; a6,b7; =;65
610: c3,a5,f1; b1,a4; =; 7      684: d6,a2,g5; b6,a3; =;33      758: e7,d7,f5; c8,b7; =;49
611: c3,e3,e4; b1,a4; =; 5      685: d6,a2,d4; b6,a3; =;28      759: e7,d7,f3; c8,b7; =;49
612: c3,e3,f3; b1,a4; =; 5      686: d6,a2,f4; b6,a3; =;30      760: e7,d7,e2; c8,b7; =;49
613: c3,e3,f1; b1,a4; =; 5      687: d6,a2,c3; b6,a3; =;26      761: e7,d4,d7; c7,b7; =;48
614: c3,a5,e3; c1,a4; =; 6      688: f6,a2,c4; f2,a3; =;29      762: b6,a8,c7; b8,b7; =;59
615: c3,a5,b2; c1,a4; =; 8      689: g6,a2,d5; g4,a3; =;69      763: b6,b8,d7; c8,b7; =;68
616: c3,a5,f2; c1,a4; =; 8      690: h6,a2,d5; h4,a3; =;70      764: b6,b8,f8; d8,b7; =;69
617: c3,b2,d2; c1,a4; =; 6      691: a5,a2,f6; a7,a3; =;30      765: b6,b8,d6; d8,b7; =;69
618: c3,d2,e3; c1,a4; =; 4      692: b5,a2,a5; a7,a3; =;18      766: b6,b8,f6; d8,b7; =;69
619: c3,d2,f2; c1,a4; =; 6      693: b5,a2,f6; b7,a3; =;29      767: b6,a7,b8; d8,b7; =;71
620: d3,b1,c3; b3,a4; =;91      694: c5,a2,f6; c7,a3; =;28      768: b6,b8,c8; e8,b7; =;70
621: d3,c3,d2; b2,a4; =;59      695: d5,a2,e6; b6,a3; =;28      769: b6,b8,g8; e8,b7; =;72
622: d3,c3,e2; b2,a4; =;24      696: d5,a2,d8; b5,a3; =;29      770: b6,b8,d5; e8,b7; =;70
623: d3,c1,e2; b2,a4; =;24      697: d5,a2,f8; b5,a3; =;32      771: b6,b8,f5; e8,b7; =;70
624: d3,c1,f5; e1,a4; =;62      698: d5,a2,g7; b5,a3; =;32      772: b6,c8,d6; d7,b7; =;62
625: e3,b4,f7; g3,a4; =;75      699: d5,a2,g5; b5,a3; =;32      773: b6,a7,c8; d7,b7; =;62
626: e3,c3,f7; g3,a4; =;70      700: d5,a2,f4; b5,a3; =;29      774: b6,g8,h8; e6,b7; =;70
627: e3,c1,f7; g3,a4; =;72      701: d5,a2,c4; d3,a3; =;52      775: b6,c8,d8; f6,b7; =;68
628: e3,c1,e2; c2,a4; =;52      702: f5,a2,g8; h5,a3; =;59      776: b6,c4,d6; d5,b7; =;64
629: e3,b4,h8; g2,a4; =;76      703: f5,a2,f7; h5,a3; =;63      777: b6,h7,h8; f5,b7; =;70
630: e3,b4,e2; g2,a4; =;60      704: f5,a2,g4; h5,a3; =;59      778: b6,b4,d5; c4,b7; =;68
631: e3,c3,e2; g2,a4; =;58      705: f5,a2,d5; f3,a3; =;67      779: b6,a1,a2; c4,b7; =;68
632: e3,c1,h8; g2,a4; =;73      706: f5,a2,c4; f3,a3; =;65      780: b6,h1,h2; f4,b7; =;70
633: e3,c1,e2; g2,a4; =;60      707: f5,a2,g4; f3,a3; =;65      781: b6,a1,e1; c3,b7; =;73
634: f3,b4,f7; h3,a4; =;73      708: g5,a2,d5; g3,a3; =;68      782: b6,a1,b1; d3,b7; =;68
635: f3,b4,g2; h3,a4; =;43      709: g5,a2,d4; g3,a3; =;57      783: b6,g1,h1; e3,b7; =;70
636: f3,c3,f7; h3,a4; =;69      710: g5,a2,h4; g3,a3; =;61      784: e6,a5,d4; c7,b7; =;52
637: f3,c3,g2; h3,a4; =;41      711: h5,a2,d5; h3,a3; =;69      785: e6,c5,d4; c7,b7; =;52
638: f3,c1,f7; h3,a4; =;71      712: h5,a2,d4; h3,a3; =;58      786: a5,b8,d7; a8,b7; =;10
639: f3,c1,g2; h3,a4; =;41      713: h5,a2,h4; h3,a3; =;62      787: b5,b8,d7; a7,b7; =; 9
640: a2,c5,e3; c1,a4; =;98      714: c4,a2,b8; a4,a3; =; 9      788: d5,c2,c4; a6,b7; =;64
641: a2,a1,e3; c1,a4; =;97      715: d4,a2,c4; c2,a3; =;28      789: a4,b4,f6; b6,b7; =;66
642: d2,a6,c1; a3,a4; =; 8      716: e4,a2,f7; g4,a3; =;66      790: b4,b8,e6; b6,b7; =;23
643: d2,c1,d5; a3,a4; =; 9      717: e4,a2,f5; f2,a3; =;56      791: f3,a5,f5; h2,b7; =;11
644: d2,c1,f4; b2,a4; =;10      718: f4,a2,f7; h4,a3; =;64      792: e2,a5,f5; g1,b7; =;13
645: d2,c1,e1; b2,a4; =;10      719: f4,a2,g7; h4,a3; =;50      793: b8,a7,b3; a6,b6; =;11
646: d2,c1,f1; b1,a4; =;25      720: f4,a2,g3; h4,a3; =;50      794: e8,a6,f4; g8,b6; =;13
647: e2,b4,f7; g2,a4; =;76      721: f4,a2,e2; h3,a3; =;53      795: e8,d3,f4; g8,b6; =;13
```

```
796: e8,a2,f4; g8,b6; =;13      870: d6,d5,g4; c8,b6; =;15      944: d6,b3,f6; d8,b6; =;16
797: f8,a6,f4; h8,b6; =;12      871: d6,f5,h5; c8,b6; =;51      945: d6,b3,b4; d8,b6; =;23
798: f8,a2,f4; h8,b6; =;12      872: d6,f5,g4; c8,b6; =;51      946: d6,d3,e7; d8,b6; =;17
799: d7,b4,f5; f8,b6; =;48      873: d6,a4,a8; c8,b6; =;31      947: d6,d3,f6; d8,b6; =;12
800: e7,e2,f3; c8,b6; =;47      874: d6,a4,e8; c8,b6; =;31      948: d6,d3,h6; d8,b6; =;20
801: e7,b4,f4; g8,b6; =;13      875: d6,a4,d7; c8,b6; =;50      949: d6,d3,h4; d8,b6; =;20
802: e7,a6,f4; g7,b6; =;12      876: d6,a4,a6; c8,b6; =;31      950: d6,d3,e3; d8,b6; =;17
803: e7,d3,f4; g7,b6; =;12      877: d6,a4,f5; c8,b6; =;31      951: d6,d3,g3; d8,b6; =;20
804: e7,a2,f4; g7,b6; =;12      878: d6,a4,e4; c8,b6; =;51      952: d6,f3,f6; d8,b6; =;18
805: f7,a6,f4; h7,b6; =;11      879: d6,c4,f5; c8,b6; =;26      953: d6,a2,e7; d8,b6; =;17
806: f7,a2,f4; h7,b6; =;11      880: d6,c4,e4; c8,b6; =;51      954: d6,a2,f6; d8,b6; =;12
807: a6,b5,b8; d5,b6; =;54      881: d6,e4,e8; c8,b6; =;17      955: d6,a2,h6; d8,b6; =;20
808: a6,b7,c2; a4,b6; =;55      882: d6,e4,f1; c8,b6; =;51      956: d6,a2,h4; d8,b6; =;20
809: a6,c2,d7; a4,b6; =;55      883: d6,b3,g8; c8,b6; =;17      957: d6,a2,e3; d8,b6; =;17
810: a6,c2,e6; a4,b6; =;54      884: d6,b3,g4; c8,b6; =;17      958: d6,a2,g3; d8,b6; =;20
811: a6,c2,e4; a4,b6; =;53      885: d6,d3,e8; c8,b6; =;15      959: d6,c2,e7; d8,b6; =;17
812: c6,d5,h1; b8,b6; =;22      886: d6,d3,g8; c8,b6; =;15      960: d6,c2,f6; d8,b6; =;12
813: c6,d3,h1; b8,b6; =;22      887: d6,d3,g6; c8,b6; =;18      961: d6,c2,h6; d8,b6; =;20
814: c6,a2,d1; b8,b6; =;19      888: d6,d3,g4; c8,b6; =;15      962: d6,c2,h4; d8,b6; =;20
815: c6,a2,h1; b8,b6; =;22      889: d6,f3,h5; c8,b6; =;51      963: d6,c2,e3; d8,b6; =;17
816: c6,c2,d1; b8,b6; =;19      890: d6,f3,g4; c8,b6; =;51      964: d6,c2,g3; d8,b6; =;20
817: c6,c2,h1; b8,b6; =;22      891: d6,a2,a8; c8,b6; =;17      965: d6,d2,d5; d8,b6; =;49
818: c6,d1,d5; b8,b6; =;18      892: d6,a2,e8; c8,b6; =;17      966: d6,e2,f6; d8,b6; =;18
819: c6,d1,d3; b8,b6; =;19      893: d6,a2,g8; c8,b6; =;15      967: d6,a1,a8; d8,b6; =;48
820: c6,d7,f6; c8,b6; =;17      894: d6,a2,g6; c8,b6; =;18      968: d6,a1,a6; d8,b6; =;48
821: c6,a6,f6; c8,b6; =;13      895: d6,a2,g4; c8,b6; =;15      969: d6,a1,d5; d8,b6; =;48
822: c6,a6,h4; c8,b6; =;21      896: d6,c2,g8; c8,b6; =;15      970: d6,b1,f6; d8,b6; =;18
823: c6,a6,e3; c8,b6; =;17      897: d6,c2,g6; c8,b6; =;18      971: d6,c1,d5; d8,b6; =;43
824: c6,a6,g3; c8,b6; =;21      898: d6,c2,h5; c8,b6; =;51      972: d6,f1,f6; d8,b6; =;18
825: c6,d5,f6; c8,b6; =;13      899: d6,c2,g4; c8,b6; =;15      973: d6,c6,d2; a6,b6; =;51
826: c6,d5,h4; c8,b6; =;21      900: d6,d2,f6; c8,b6; =;17      974: d6,b1,c6; b5,b6; =;50
827: c6,d5,e3; c8,b6; =;17      901: d6,d2,e3; c8,b6; =;50      975: e6,b3,d2; c8,b6; =;47
828: c6,d5,g3; c8,b6; =;21      902: d6,e2,h5; c8,b6; =;51      976: e6,b3,c1; c8,b6; =;20
829: c6,a4,f6; c8,b6; =;33      903: d6,e2,g4; c8,b6; =;51      977: e6,a1,f5; c8,b6; =;25
830: c6,b4,g6; c8,b6; =;19      904: d6,a1,f6; c8,b6; =;17      978: e6,a1,b3; c8,b6; =;25
831: c6,d3,f6; c8,b6; =;13      905: d6,a1,h4; c8,b6; =;21      979: e6,a1,f3; c8,b6; =;25
832: c6,d3,h4; c8,b6; =;21      906: d6,a1,e3; c8,b6; =;18      980: e6,a1,e2; c8,b6; =;25
833: c6,d3,e3; c8,b6; =;18      907: d6,a1,g3; c8,b6; =;21      981: e6,c1,f5; c8,b6; =;20
834: c6,d3,g3; c8,b6; =;21      908: d6,b1,e8; c8,b6; =;17      982: e6,c1,f3; c8,b6; =;20
835: c6,f3,f6; c8,b6; =;19      909: d6,b1,d7; c8,b6; =;50      983: e6,c1,e2; c8,b6; =;20
836: c6,a2,f6; c8,b6; =;13      910: d6,b1,f5; c8,b6; =;29      984: e6,a6,d5; d8,b6; =;14
837: c6,a2,h4; c8,b6; =;21      911: d6,b1,e4; c8,b6; =;51      985: e6,a6,f5; d8,b6; =;18
838: c6,a2,e3; c8,b6; =;18      912: d6,c1,f6; c8,b6; =;17      986: e6,a6,e4; d8,b6; =;20
839: c6,a2,g3; c8,b6; =;21      913: d6,c1,h4; c8,b6; =;21      987: e6,a6,b3; d8,b6; =;18
840: c6,c2,f6; c8,b6; =;13      914: d6,c1,e3; c8,b6; =;18      988: e6,a6,d3; d8,b6; =;14
841: c6,c2,h4; c8,b6; =;21      915: d6,c1,g3; c8,b6; =;21      989: e6,a6,f3; d8,b6; =;18
842: c6,c2,e3; c8,b6; =;18      916: d6,f1,f5; c8,b6; =;51      990: e6,a6,c2; d8,b6; =;14
843: c6,c2,g3; c8,b6; =;21      917: d6,a8,b4; d8,b6; =;29      991: e6,a6,e2; d8,b6; =;18
844: c6,e2,f6; c8,b6; =;19      918: d6,a8,d2; d8,b6; =;49      992: e6,a6,f1; d8,b6; =;20
845: c6,b1,f6; c8,b6; =;19      919: d6,a8,c1; d8,b6; =;43      993: e6,d5,f5; d8,b6; =;18
846: c6,f1,f6; c8,b6; =;19      920: d6,d7,f6; d8,b6; =;16      994: e6,d5,e4; d8,b6; =;20
847: c6,d3,d5; a5,b6; =;50      921: d6,a6,f6; d8,b6; =;12      995: e6,d5,f3; d8,b6; =;18
848: d6,a8,d7; c8,b6; =;16      922: d6,a6,h6; d8,b6; =;20      996: e6,d5,e2; d8,b6; =;18
849: d6,a8,c6; c8,b6; =;15      923: d6,a6,h4; d8,b6; =;20      997: e6,d5,f1; d8,b6; =;20
850: d6,a8,f5; c8,b6; =;17      924: d6,a6,e3; d8,b6; =;16      998: e6,b4,b8; d8,b6; =;23
851: d6,a8,c4; c8,b6; =;17      925: d6,a6,g3; d8,b6; =;20      999: e6,b4,e7; d8,b6; =;16
852: d6,a8,e4; c8,b6; =;17      926: d6,a6,d2; d8,b6; =;49      1000: e6,b4,g7; d8,b6; =;15
853: d6,a8,d3; c8,b6; =;15      927: d6,a6,c1; d8,b6; =;43      1001: e6,b4,f6; d8,b6; =;11
854: d6,a8,f3; c8,b6; =;17      928: d6,d5,f6; d8,b6; =;12      1002: e6,b4,h6; d8,b6; =;19
855: d6,a8,c2; c8,b6; =;17      929: d6,d5,h6; d8,b6; =;20      1003: e6,b4,e5; d8,b6; =;18
856: d6,a8,e2; c8,b6; =;17      930: d6,d5,h4; d8,b6; =;20      1004: e6,b4,g5; d8,b6; =;23
857: d6,a8,b1; c8,b6; =;17      931: d6,d5,e3; d8,b6; =;16      1005: e6,b4,f4; d8,b6; =;18
858: d6,a8,f1; c8,b6; =;17      932: d6,d5,g3; d8,b6; =;20      1006: e6,b4,h4; d8,b6; =;19
859: d6,e8,f1; c8,b6; =;17      933: d6,f5,f6; d8,b6; =;18      1007: e6,b4,e3; d8,b6; =;16
860: d6,d7,e8; c8,b6; =;16      934: d6,a4,f6; d8,b6; =;32      1008: e6,b4,d2; d8,b6; =;18
861: d6,d7,f5; c8,b6; =;51      935: d6,b4,g6; d8,b6; =;18      1009: e6,b4,g3; d8,b6; =;23
862: d6,d7,e4; c8,b6; =;50      936: d6,b4,f5; d8,b6; =;17      1010: e6,b4,f2; d8,b6; =;23
863: d6,d7,f3; c8,b6; =;51      937: d6,b4,c4; d8,b6; =;23      1011: e6,b4,h2; d8,b6; =;23
864: d6,d7,e2; c8,b6; =;50      938: d6,b4,e4; d8,b6; =;23      1012: e6,b4,c1; d8,b6; =;23
865: d6,a6,a8; c8,b6; =;15      939: d6,b4,f3; d8,b6; =;23      1013: e6,b4,e1; d8,b6; =;23
866: d6,a6,e8; c8,b6; =;15      940: d6,b4,c2; d8,b6; =;23      1014: e6,b4,g1; d8,b6; =;23
867: d6,a6,g4; c8,b6; =;15      941: d6,b4,e2; d8,b6; =;23      1015: e6,b3,d5; d8,b6; =;18
868: d6,e6,h5; c8,b6; =;51      942: d6,c4,f6; d8,b6; =;18      1016: e6,b3,e4; d8,b6; =;46
869: d6,e6,g4; c8,b6; =;51      943: d6,e4,f6; d8,b6; =;16      1017: e6,b3,d3; d8,b6; =;18
```

```
1018: e6,b3,c2; d8,b6; =;18     1092: f6,d5,g3; f8,b6; =;20     1166: b5,a6,b4; b7,b6; =;31
1019: e6,d3,d5; d8,b6; =;14     1093: f6,b4,c8; f8,b6; =;21     1167: b5,a6,h4; b7,b6; =;22
1020: e6,d3,f5; d8,b6; =;18     1094: f6,b4,b7; f8,b6; =;21     1168: b5,a6,e3; b7,b6; =;18
1021: e6,d3,e4; d8,b6; =;20     1095: f6,b4,f7; f8,b6; =;21     1169: b5,a6,g3; b7,b6; =;22
1022: e6,d3,f3; d8,b6; =;18     1096: f6,b4,c6; f8,b6; =;21     1170: b5,a6,d2; b7,b6; =;50
1023: e6,d3,e2; d8,b6; =;18     1097: f6,b4,d5; f8,b6; =;22     1171: b5,a6,c1; b7,b6; =;45
1024: e6,d3,f1; d8,b6; =;20     1098: f6,b4,c4; f8,b6; =;21     1172: b5,d5,e7; b7,b6; =; 9
1025: e6,a2,a6; d8,b6; =;14     1099: f6,b4,e4; f8,b6; =;21     1173: b5,a4,e6; b7,b6; =;31
1026: e6,a2,d5; d8,b6; =;14     1100: f6,b4,f3; f8,b6; =;21     1174: b5,b4,e8; b7,b6; =;45
1027: e6,a2,f5; d8,b6; =;18     1101: f6,b4,c2; f8,b6; =;21     1175: b5,b4,d5; b7,b6; =;44
1028: e6,a2,e4; d8,b6; =;20     1102: f6,b4,e2; f8,b6; =;21     1176: b5,d2,e8; b7,b6; =;50
1029: e6,a2,b3; d8,b6; =;18     1103: f6,b3,b4; f8,b6; =;21     1177: b5,d2,d5; b7,b6; =;50
1030: e6,a2,f3; d8,b6; =;19     1104: f6,d3,e7; f8,b6; =;17     1178: b5,a1,e8; b7,b6; =;50
1031: e6,a2,c2; d8,b6; =;19     1105: f6,d3,h6; f8,b6; =;20     1179: b5,a1,a6; b7,b6; =;50
1032: e6,a2,e2; d8,b6; =;19     1106: f6,d3,h4; f8,b6; =;20     1180: b5,a1,d5; b7,b6; =;50
1033: e6,a2,f1; d8,b6; =;20     1107: f6,d3,e3; f8,b6; =;17     1181: b5,c1,e8; b7,b6; =;46
1034: e6,c2,d5; d8,b6; =;14     1108: f6,d3,g3; f8,b6; =;20     1182: b5,c1,d5; b7,b6; =;46
1035: e6,c2,f5; d8,b6; =;18     1109: f6,a2,e7; f8,b6; =;17     1183: b5,e2,f4; h2,b6; =; 8
1036: e6,c2,e4; d8,b6; =;20     1110: f6,a2,h6; f8,b6; =;20     1184: d5,b4,f6; c7,b6; =;14
1037: e6,c2,d3; d8,b6; =;18     1111: f6,a2,h4; f8,b6; =;20     1185: f5,d3,e6; h6,b6; =;17
1038: e6,c2,f3; d8,b6; =;19     1112: f6,a2,e3; f8,b6; =;17     1186: f5,c2,e6; h6,b6; =;17
1039: e6,c2,e2; d8,b6; =;19     1113: f6,a2,g3; f8,b6; =;20     1187: g5,b4,c8; g7,b6; =;48
1040: e6,c2,f1; d8,b6; =;20     1114: f6,c2,e7; f8,b6; =;17     1188: g5,b4,b7; g7,b6; =;48
1041: e6,a1,b4; d8,b6; =;23     1115: f6,c2,h6; f8,b6; =;20     1189: g5,b4,c4; g7,b6; =;48
1042: e6,c6,e7; e8,b6; =;15     1116: f6,c2,h4; f8,b6; =;20     1190: g5,b4,e4; g7,b6; =;48
1043: e6,c6,h6; e8,b6; =;19     1117: f6,c2,e3; f8,b6; =;17     1191: g5,d3,h6; g7,b6; =;21
1044: e6,c6,h4; e8,b6; =;19     1118: f6,c2,g3; f8,b6; =;20     1192: g5,a2,h6; g7,b6; =;21
1045: e6,c6,e3; e8,b6; =;15     1119: f6,c8,d5; g8,b6; =;17     1193: g5,b4,e5; h7,b6; =;49
1046: e6,c6,g3; e8,b6; =;19     1120: f6,b4,e5; g8,b6; =;19     1194: g5,b4,f2; h7,b6; =;49
1047: e6,b4,c6; e8,b6; =;22     1121: f6,b4,f2; g8,b6; =;22     1195: g5,d3,g4; h7,b6; =;22
1048: e6,b4,g6; e8,b6; =;17     1122: f6,b4,h2; g8,b6; =;22     1196: g5,a2,g4; h7,b6; =;22
1049: e6,b4,f3; e8,b6; =;22     1123: f6,d3,g4; g8,b6; =;18     1197: h5,b4,c8; h7,b6; =;49
1050: e6,b4,c2; e8,b6; =;22     1124: f6,a2,g4; g8,b6; =;18     1198: h5,b4,b7; h7,b6; =;49
1051: e6,b4,e2; e8,b6; =;22     1125: f6,b4,d3; h8,b6; =;20     1199: h5,b4,f7; h7,b6; =;50
1052: e6,b3,b4; e8,b6; =;22     1126: f6,b4,f4; h7,b6; =;11     1200: h5,b4,c4; h7,b6; =;49
1053: e6,d3,e7; e8,b6; =;16     1127: f6,a6,g7; h6,b6; =; 8     1201: h5,b4,e4; h7,b6; =;49
1054: e6,d3,h6; e8,b6; =;19     1128: f6,a6,f4; h6,b6; =;10     1202: b4,c8,e6; a6,b6; =;50
1055: e6,d3,h4; e8,b6; =;19     1129: f6,a6,g3; h6,b6; =; 8     1203: b4,c8,e4; a6,b6; =;48
1056: e6,d3,e3; e8,b6; =;16     1130: f6,a2,g7; h6,b6; =; 8     1204: b4,c8,d3; a6,b6; =;49
1057: e6,d3,g3; e8,b6; =;19     1131: f6,a2,f4; h6,b6; =;10     1205: b4,c6,e8; a6,b6; =;45
1058: e6,a2,e7; e8,b6; =;16     1132: f6,a2,g3; h6,b6; =; 8     1206: b4,a4,c8; a6,b6; =;48
1059: e6,a2,h6; e8,b6; =;19     1133: g6,b4,c8; g8,b6; =;22     1207: b4,c4,d3; a2,b6; =; 4
1060: e6,a2,h4; e8,b6; =;19     1134: g6,b4,b7; g8,b6; =;22     1208: b4,c2,d3; a2,b6; =; 4
1061: e6,a2,e3; e8,b6; =;16     1135: g6,b4,f7; g8,b6; =;22     1209: f4,d3,g7; h4,b6; =;15
1062: e6,a2,g3; e8,b6; =;19     1136: g6,b4,c4; g8,b6; =;22     1210: f4,d3,g3; h4,b6; =;15
1063: e6,c2,e7; e8,b6; =;16     1137: g6,b4,e4; g8,b6; =;22     1211: f4,c2,g7; h4,b6; =;15
1064: e6,c2,h6; e8,b6; =;19     1138: g6,d3,h4; g8,b6; =;21     1212: f4,c2,g3; h4,b6; =;15
1065: e6,c2,h4; e8,b6; =;19     1139: g6,d3,e3; g8,b6; =;18     1213: f4,d2,f6; h2,b6; =;22
1066: e6,c2,e3; e8,b6; =;16     1140: g6,d3,g3; g8,b6; =;21     1214: f4,b1,e4; h2,b6; =;22
1067: e6,c2,g3; e8,b6; =;19     1141: g6,a2,h4; g8,b6; =;21     1215: g4,b7,d2; h2,b6; =;47
1068: e6,a6,f5; f8,b6; =;14     1142: g6,a2,e3; g8,b6; =;18     1216: g4,a4,d2; h2,b6; =;47
1069: e6,c6,f5; f8,b6; =;14     1143: g6,a2,g3; g8,b6; =;21     1217: g4,a2,d2; h2,b6; =;47
1070: e6,d5,f5; f8,b6; =;14     1144: g6,a6,d1; h8,b6; =;18     1218: g4,c1,h7; h2,b6; =;22
1071: e6,d3,f5; f8,b6; =;15     1145: g6,a2,d1; h8,b6; =;18     1219: h4,d2,d3; g2,b6; =;12
1072: e6,a2,f5; f8,b6; =;15     1146: g6,b2,b4; h8,b6; =;23     1220: h4,d2,h3; g2,b6; =;14
1073: e6,c2,f5; f8,b6; =;15     1147: g6,c2,d1; h8,b6; =;19     1221: h4,b4,d2; h2,b6; =;13
1074: e6,b3,e7; c7,b6; =;19     1148: h6,b4,b7; h8,b6; =;23     1222: h4,e4,h3; h2,b6; =;15
1075: e6,d2,d4; c7,b6; =;19     1149: h6,b4,c4; h8,b6; =;23     1223: h4,b3,e4; h2,b6; =;22
1076: f6,a8,b4; f8,b6; =;27     1150: h6,d3,h4; h8,b6; =;22     1224: h4,b3,h3; h2,b6; =;15
1077: f6,a6,e7; f8,b6; =;16     1151: h6,d3,e3; h8,b6; =;19     1225: h4,d2,f6; h2,b6; =;18
1078: f6,a6,h6; f8,b6; =;20     1152: h6,d3,g3; h8,b6; =;22     1226: h4,d2,e5; h2,b6; =;13
1079: f6,a6,b4; f8,b6; =;27     1153: h6,a2,h4; h8,b6; =;19     1227: h4,d2,g5; h2,b6; =;15
1080: f6,a6,h4; f8,b6; =;20     1154: h6,a2,e3; h8,b6; =;19     1228: h4,d2,g3; h2,b6; =;22
1081: f6,a6,e3; f8,b6; =;16     1155: h6,a2,g3; h8,b6; =;22     1229: h4,b1,e4; h2,b6; =;22
1082: f6,a6,g3; f8,b6; =;20     1156: b5,e6,f8; c8,b6; =;14     1230: h4,b1,h3; h2,b6; =;15
1083: f6,c6,e7; f8,b6; =;16     1157: b5,e5,e6; c8,b6; =;12     1231: h4,c1,d2; h2,b6; =;13
1084: f6,c6,h6; f8,b6; =;20     1158: b5,d5,f6; d8,b6; =;14     1232: a3,b3,c8; b5,b6; =;51
1085: f6,c6,h4; f8,b6; =;20     1159: b5,a6,d1; a7,b6; =;19     1233: a3,b3,f5; b5,b6; =;51
1086: f6,c6,e3; f8,b6; =;16     1160: b5,a4,f8; a7,b6; =;50     1234: a3,a6,e3; a1,b6; =;16
1087: f6,c6,g3; f8,b6; =;20     1161: b5,a4,g5; a7,b6; =;50     1235: a3,c6,e3; a1,b6; =;16
1088: f6,d5,e7; f8,b6; =;16     1162: b5,a4,f4; a7,b6; =;50     1236: b3,b7,c4; a1,b6; =;50
1089: f6,d5,h6; f8,b6; =;20     1163: b5,e7,e8; b7,b6; =; 9     1237: b3,c4,d7; a1,b6; =;50
1090: f6,d5,h4; f8,b6; =;20     1164: b5,a6,e7; b7,b6; =; 9     1238: b3,a6,e3; b1,b6; =;15
1091: f6,d5,e3; f8,b6; =;16     1165: b5,a6,f6; b7,b6; =;14     1239: b3,c6,e3; b1,b6; =;15
```

```
1240: c3,a8,b4; a1,b6; =;38     1314: e1,a4,f5; g1,b6; =;14     1388: c6,b4,e3; c8,b5; =;16
1241: c3,b4,c8; a1,b6; =;38     1315: e1,c4,f5; g1,b6; =;13     1389: c6,b4,g3; c8,b5; =;20
1242: c3,b4,e8; a1,b6; =;38     1316: e1,b3,f5; g1,b6; =;13     1390: c6,d4,f6; c8,b5; =;18
1243: c3,b4,b7; a1,b6; =;38     1317: e1,b1,f5; g1,b6; =;13     1391: c6,d2,f6; c8,b5; =;18
1244: c3,b4,e3; b1,b6; =;13     1318: e1,f1,f5; g1,b6; =;13     1392: c6,a1,b7; c8,b5; =; 9
1245: c3,a6,e3; c1,b6; =;14     1319: f1,a8,g5; h1,b6; =;18     1393: c6,a1,f6; c8,b5; =;18
1246: c3,a6,b2; c1,b6; =;12     1320: f1,a8,g1; h1,b6; =;18     1394: c6,c1,f6; c8,b5; =;18
1247: c3,a6,f2; c1,b6; =;14     1321: c8,b4,b7; b6,b5; =; 5     1395: c6,b7,e3; a6,b5; =;12
1248: c3,c6,e3; c1,b6; =;14     1322: d8,a5,d1; b8,b5; =;15     1396: c6,b6,d3; a5,b5; =;24
1249: c3,c6,f2; c1,b6; =;14     1323: d8,c5,d1; b8,b5; =;15     1397: d6,a8,c5; c8,b5; =;14
1250: c3,d5,e3; c1,b6; =;14     1324: d8,b3,h8; b8,b5; =;10     1398: d6,a8,d4; c8,b5; =;16
1251: c3,d5,f2; c1,b6; =;14     1325: e8,b4,f4; g8,b5; =;12     1399: d6,a8,d2; c8,b5; =;16
1252: c3,b2,c6; c1,b6; =;12     1326: f8,b4,f4; h8,b5; =;11     1400: d6,a8,c1; c8,b5; =;16
1253: c3,b2,d5; c1,b6; =;12     1327: d7,b2,d2; b8,b5; =;12     1401: d6,a6,c5; c8,b5; =;14
1254: c3,b2,c2; c1,b6; =;12     1328: d7,b2,c1; b8,b5; =;12     1402: d6,a6,d4; c8,b5; =;16
1255: c3,c2,e3; c1,b6; =;14     1329: d7,d2,f2; b8,b5; =;10     1403: d6,a6,d2; c8,b5; =;16
1256: c3,c2,f2; c1,b6; =;12     1330: d7,a1,b2; b8,b5; =;12     1404: d6,a6,c1; c8,b5; =;16
1257: e3,d2,f5; g2,b6; =;12     1331: d7,a1,f2; b8,b5; =;10     1405: d6,a5,a8; c8,b5; =;14
1258: e3,a4,e6; e1,b6; =;44     1332: d7,c1,f2; b8,b5; =;10     1406: d6,a5,d7; c8,b5; =;16
1259: e3,a4,d5; e1,b6; =;38     1333: d7,b3,h8; b7,b5; =; 9     1407: d6,a5,a6; c8,b5; =;14
1260: e3,a4,f5; e1,b6; =;45     1334: d7,b3,f2; b7,b5; =; 9     1408: d6,a5,h5; c8,b5; =;14
1261: e3,a4,e2; e1,b6; =;44     1335: d7,b2,b3; b7,b5; =;11     1409: d6,a5,e4; c8,b5; =;16
1262: e3,c4,d5; e1,b6; =;46     1336: d7,b3,f7; b6,b5; =; 8     1410: d6,a5,g4; c8,b5; =;16
1263: e3,c4,e2; e1,b6; =;46     1337: d7,b3,e4; b6,b5; =; 8     1411: d6,c5,d7; c8,b5; =;16
1264: e3,b2,e7; e1,b6; =;18     1338: d7,b3,d1; b6,b5; =;10     1412: d6,c5,h5; c8,b5; =;14
1265: e3,b2,g7; e1,b6; =;18     1339: e7,a5,f3; c8,b5; =;17     1413: d6,c5,e4; c8,b5; =;16
1266: e3,b2,h6; e1,b6; =;18     1340: e7,a5,e2; c8,b5; =;17     1414: d6,c5,g4; c8,b5; =;16
1267: e3,b2,g5; e1,b6; =;23     1341: e7,c5,f3; c8,b5; =;15     1415: d6,b4,g8; c8,b5; =;14
1268: e3,b2,g3; e1,b6; =;18     1342: e7,c5,e2; c8,b5; =;15     1416: d6,b4,g6; c8,b5; =;16
1269: e3,d5,f4; f1,b6; =;19     1343: e7,d4,f3; c8,b5; =;17     1417: d6,b4,g4; c8,b5; =;14
1270: e3,a4,f4; f1,b6; =;17     1344: e7,d4,e2; c8,b5; =;17     1418: d6,d4,d7; c8,b5; =;18
1271: e3,c4,f4; f1,b6; =;17     1345: e7,a3,b3; c8,b5; =;17     1419: d6,d4,f5; c8,b5; =;16
1272: e3,f4,g4; f1,b6; =;17     1346: e7,b3,d2; c8,b5; =;17     1420: d6,d4,h5; c8,b5; =;16
1273: e3,f4,h3; f1,b6; =;17     1347: e7,b3,c1; c8,b5; =;17     1421: d6,d4,e4; c8,b5; =;18
1274: e3,f4,h1; f1,b6; =;17     1348: e7,b3,e1; c8,b5; =;17     1422: d6,d4,g4; c8,b5; =;18
1275: e3,a2,f4; f1,b6; =;19     1349: e7,d2,f3; c8,b5; =;17     1423: d6,d2,d7; c8,b5; =;18
1276: e3,f2,g6; f1,b6; =;17     1350: e7,d2,e2; c8,b5; =;17     1424: d6,d2,h5; c8,b5; =;16
1277: e3,b1,f4; f1,b6; =;19     1351: e7,a1,b3; c8,b5; =;17     1425: d6,d2,e4; c8,b5; =;18
1278: e3,d1,f4; f1,b6; =;17     1352: e7,a1,f3; c8,b5; =;17     1426: d6,d2,g4; c8,b5; =;18
1279: f3,b7,f2; h2,b6; =;10     1353: e7,a1,e2; c8,b5; =;17     1427: d6,a1,a8; c8,b5; =;16
1280: f3,a4,g7; h2,b6; =;22     1354: e7,c1,f3; c8,b5; =;17     1428: d6,a1,d7; c8,b5; =;18
1281: f3,a4,h6; h2,b6; =;22     1355: e7,c1,e2; c8,b5; =;17     1429: d6,a1,a6; c8,b5; =;16
1282: f3,b2,b7; h2,b6; =;42     1356: e7,a5,d4; c7,b5; =;16     1430: d6,a1,h5; c8,b5; =;16
1283: f3,a1,c6; h2,b6; =;44     1357: e7,c5,d4; c7,b5; =;14     1431: d6,a1,e4; c8,b5; =;18
1284: f3,a1,c4; h2,b6; =;44     1358: e7,d2,d4; c7,b5; =;16     1432: d6,a1,g4; c8,b5; =;18
1285: f3,a1,b3; h2,b6; =;44     1359: e7,a1,d4; c7,b5; =;16     1433: d6,c1,d7; c8,b5; =;18
1286: f3,a1,c2; h2,b6; =;44     1360: e7,c1,d4; c7,b5; =;16     1434: d6,c1,h5; c8,b5; =;16
1287: f3,a4,e6; f1,b6; =;45     1361: e7,b4,f4; g7,b5; =;11     1435: d6,c1,e4; c8,b5; =;18
1288: f3,a4,d5; f1,b6; =;39     1362: f7,a3,f8; h8,b5; =; 3     1436: d6,c1,g4; c8,b5; =;18
1289: f3,a4,f5; f1,b6; =;46     1363: f7,b4,f4; h7,b5; =;10     1437: d6,c7,d4; d8,b5; =;15
1290: f3,a4,e2; f1,b6; =;45     1364: b6,a3,d6; a8,b5; =; 5     1438: d6,c7,d2; d8,b5; =;15
1291: f3,c4,e2; f1,b6; =;47     1365: b6,b2,d6; a8,b5; =; 5     1439: d6,a5,c7; d8,b5; =;13
1292: f3,a4,f8; g1,b6; =;46     1366: b6,a5,f6; b8,b5; =;17     1440: d6,a5,g7; d8,b5; =;13
1293: f3,a4,g5; g1,b6; =;25     1367: b6,c5,f6; b8,b5; =;17     1441: d6,a5,f6; d8,b5; =;15
1294: g3,a4,e6; g1,b6; =;46     1368: b6,b4,f6; b8,b5; =;12     1442: d6,c5,c7; d8,b5; =;13
1295: e2,a4,g7; g1,b6; =;24     1369: b6,b4,h4; b8,b5; =;21     1443: d6,c5,g7; d8,b5; =;13
1296: e2,a4,h6; g1,b6; =;24     1370: b6,b4,e3; b8,b5; =;17     1444: d6,c5,f6; d8,b5; =;15
1297: e2,b3,h6; g1,b6; =;13     1371: b6,b4,g3; b8,b5; =;21     1445: d6,b4,c7; d8,b5; =;11
1298: e2,b2,e8; g1,b6; =;47     1372: b6,d4,f6; b8,b5; =;19     1446: d6,b4,e7; d8,b5; =;15
1299: e2,b2,b7; g1,b6; =;47     1373: b6,d2,f6; b8,b5; =;19     1447: d6,b4,g7; d8,b5; =;11
1300: e2,a1,c6; g1,b6; =;49     1374: b6,a1,f6; b8,b5; =;19     1448: d6,b4,f6; d8,b5; =;10
1301: e2,a1,c4; g1,b6; =;49     1375: b6,c1,f6; b8,b5; =;19     1449: d6,b4,h6; d8,b5; =;19
1302: e2,a1,b3; g1,b6; =;49     1376: c6,b4,d1; b8,b5; =;17     1450: d6,b4,d4; d8,b5; =;17
1303: e2,a1,c2; g1,b6; =;49     1377: c6,b4,h1; b8,b5; =;21     1451: d6,b4,h4; d8,b5; =;19
1304: d1,d5,f4; f1,b6; =;17     1378: c6,b7,c5; c8,b5; =; 7     1452: d6,b4,e3; d8,b5; =;15
1305: e1,a8,f5; g1,b6; =;24     1379: c6,b7,d4; c8,b5; =; 9     1453: d6,b4,g3; d8,b5; =;19
1306: e1,c8,f5; g1,b6; =;24     1380: c6,b7,d2; c8,b5; =; 9     1454: d6,d4,g7; d8,b5; =;15
1307: e1,e8,f5; g1,b6; =;24     1381: c6,b7,c1; c8,b5; =; 9     1455: d6,d4,f6; d8,b5; =;17
1308: e1,b7,f5; g1,b6; =;14     1382: c6,a5,b7; c8,b5; =; 8     1456: d6,d2,g7; d8,b5; =;15
1309: e1,d7,f5; g1,b6; =;14     1383: c6,a5,f6; c8,b5; =;16     1457: d6,d2,f6; d8,b5; =;17
1310: e1,e5,e7; g1,b6; =;24     1384: c6,c5,f6; c8,b5; =;16     1458: d6,a1,c7; d8,b5; =;15
1311: e1,e5,g7; g1,b6; =;24     1385: c6,b4,b7; c8,b5; =; 5     1459: d6,a1,g7; d8,b5; =;15
1312: e1,e5,h6; g1,b6; =;24     1386: c6,b4,f6; c8,b5; =;11     1460: d6,a1,f6; d8,b5; =;17
1313: e1,f5,g4; g1,b6; =;24     1387: c6,b4,h4; c8,b5; =;20     1461: d6,c1,c7; d8,b5; =;15
```

725

```
1462: d6,c1,g7; d8,b5; =;15      1536: c5,c1,e2; a6,b5; =;21      1610: e3,b2,h3; e1,b5; =;17
1463: d6,c1,f6; d8,b5; =;17      1537: f5,b4,e6; h6,b5; =;16      1611: e3,b2,e2; e1,b5; =;17
1464: d6,b3,f2; b6,b5; =;12      1538: g5,b4,d6; g7,b5; =;11      1612: e3,c3,f4; f1,b5; =;18
1465: d6,b2,b3; b6,b5; =;12      1539: g5,b4,h6; g7,b5; =;20      1613: e3,b2,f4; f1,b5; =;16
1466: e6,b3,c2; c8,b5; =;18      1540: g5,b4,g4; h7,b5; =;21      1614: e3,f2,f4; f1,b5; =;16
1467: e6,a6,b4; d8,b5; =;13      1541: h5,b4,d6; h7,b5; =;12      1615: f3,a5,g6; h3,b5; =; 8
1468: e6,b4,d5; d8,b5; =;13      1542: b4,d6,e6; b8,b5; =; 6      1616: f3,a5,f5; h3,b5; =;10
1469: e6,b4,f5; d8,b5; =;17      1543: b4,d5,d6; b8,b5; =; 6      1617: f3,a5,g2; h3,b5; =; 8
1470: e6,b4,e4; d8,b5; =;19      1544: b4,c5,d7; a7,b5; =;21      1618: f3,a3,g6; h3,b5; =;18
1471: e6,b4,f3; d8,b5; =;17      1545: b4,d6,d7; a6,b5; =; 6      1619: f3,a3,f5; h3,b5; =;20
1472: e6,b4,c2; d8,b5; =;17      1546: b4,a5,e8; a6,b5; =;22      1620: f3,a3,g2; h3,b5; =;18
1473: e6,b4,e2; d8,b5; =;17      1547: b4,a5,d5; a6,b5; =;16      1621: f3,a1,g6; h3,b5; =; 8
1474: e6,b4,f1; d8,b5; =;19      1548: b4,d5,d6; a6,b5; =; 6      1622: f3,a1,f5; h3,b5; =;10
1475: e6,b3,f6; d8,b5; =;19      1549: b4,a5,f6; b6,b5; =;21      1623: f3,a1,g2; h3,b5; =; 8
1476: e6,b3,b4; d8,b5; =;17      1550: b4,a3,d3; a2,b5; =; 2      1624: f3,a5,e5; h2,b5; =; 9
1477: e6,b4,e7; e8,b5; =;14      1551: f4,b4,g7; h4,b5; =;14      1625: f3,a5,d4; h2,b5; =;11
1478: e6,b4,h6; e8,b5; =;18      1552: f4,b4,g3; h4,b5; =;14      1626: f3,a5,h4; h2,b5; =; 9
1479: e6,b4,d4; e8,b5; =;16      1553: f4,d2,e4; h2,b5; =;19      1627: f3,a5,f2; h2,b5; =; 9
1480: e6,b4,h4; e8,b5; =;18      1554: g4,a5,d3; g2,b5; =;11      1628: f3,a5,e1; h2,b5; =; 9
1481: e6,b4,e3; e8,b5; =;14      1555: g4,c5,d3; g2,b5; =;11      1629: f3,c5,f2; h2,b5; =; 9
1482: e6,b4,g3; e8,b5; =;18      1556: g4,d3,e5; g2,b5; =;19      1630: f3,b3,f5; h2,b5; =;10
1483: e6,b4,f5; f8,b5; =;13      1557: g4,d3,g5; g2,b5; =;20      1631: f3,b2,g7; h2,b5; =;21
1484: f6,b4,c7; f8,b5; =; 7      1558: g4,b2,h3; g2,b5; =;19      1632: f3,b2,d6; h2,b5; =;21
1485: f6,b4,e7; f8,b5; =;15      1559: g4,d2,e4; g2,b5; =;16      1633: f3,b2,h6; h2,b5; =;21
1486: f6,b4,g7; f8,b5; =; 7      1560: g4,d2,d3; g2,b5; =;11      1634: f3,a1,e5; h2,b5; =; 9
1487: f6,b4,d6; f8,b5; =; 9      1561: g4,d2,h3; g2,b5; =;13      1635: f3,a1,d4; h2,b5; =;11
1488: f6,b4,h6; f8,b5; =;19      1562: g4,c1,d3; g2,b5; =;11      1636: f3,a1,h4; h2,b5; =; 9
1489: f6,b4,d4; f8,b5; =;17      1563: g4,d1,d2; g2,b5; =;14      1637: f3,a1,f2; h2,b5; =; 9
1490: f6,b4,h4; f8,b5; =;19      1564: g4,c5,g5; h2,b5; =;21      1638: f3,a1,e1; h2,b5; =; 9
1491: f6,b4,e3; f8,b5; =;15      1565: g4,c5,d2; h2,b5; =;17      1639: f3,c1,f2; h2,b5; =; 9
1492: f6,b4,g3; f8,b5; =;19      1566: g4,d3,f7; h2,b5; =;21      1640: f3,d3,d8; f1,b5; =;18
1493: f6,b4,g4; g8,b5; =;16      1567: g4,d3,h7; h2,b5; =;21      1641: f3,d3,f8; f1,b5; =;18
1494: f6,b4,g7; h6,b5; =; 7      1568: g4,b2,g5; h2,b5; =;21      1642: f3,d3,h8; f1,b5; =;18
1495: f6,b4,f4; h6,b5; =; 9      1569: g4,c1,g5; h2,b5; =;21      1643: f3,b2,e6; f1,b5; =;18
1496: f6,b4,g3; h6,b5; =; 7      1570: g4,c1,d2; h2,b5; =;17      1644: f3,b2,g6; f1,b5; =;18
1497: g6,b4,d6; g8,b5; =;10      1571: h4,a5,d3; h2,b5; =;12      1645: f3,b2,h5; f1,b5; =;18
1498: g6,b4,h4; g8,b5; =;20      1572: h4,c5,d3; h2,b5; =;12      1646: f3,b2,h3; f1,b5; =;18
1499: g6,b4,e3; g8,b5; =;16      1573: h4,d3,e5; h2,b5; =;21      1647: f3,b2,e2; f1,b5; =;18
1500: g6,b4,g3; g8,b5; =;20      1574: h4,d3,g5; h2,b5; =;21      1648: f3,c5,g5; g1,b5; =;19
1501: g6,b4,d1; h8,b5; =;17      1575: h4,b2,h3; h2,b5; =;20      1649: f3,b4,d8; g1,b5; =;19
1502: g6,a3,h6; h8,b5; =; 3      1576: h4,d2,e4; h2,b5; =;17      1650: f3,b4,f8; g1,b5; =;19
1503: h6,b4,d6; h8,b5; =;11      1577: h4,c1,d3; h2,b5; =;12      1651: f3,b4,h8; g1,b5; =;19
1504: h6,b4,h4; h8,b5; =;21      1578: a3,b4,e3; a1,b5; =;15      1652: f3,d3,f7; g1,b5; =;19
1505: h6,b4,e3; h8,b5; =;17      1579: b3,a3,b7; a1,b5; =; 1      1653: f3,d3,h7; g1,b5; =;19
1506: h6,b4,g3; h8,b5; =;21      1580: b3,a3,d7; a1,b5; =; 1      1654: f3,b2,f8; g1,b5; =;19
1507: a5,c5,e6; a7,b5; =;12      1581: b3,a3,a6; a1,b5; =; 1      1655: f3,b2,h8; g1,b5; =;19
1508: a5,c5,f6; a7,b5; =;19      1582: b3,b4,e3; b1,b5; =;14      1656: f3,b2,g5; g1,b5; =;19
1509: c5,b4,g8; b7,b5; =;15      1583: c3,b4,c7; a1,b5; =;15      1657: f3,a1,b3; g1,b5; =;12
1510: c5,b4,g4; b7,b5; =;15      1584: c3,b4,e7; a1,b5; =;15      1658: f3,c1,g5; g1,b5; =;19
1511: c5,d4,d7; b7,b5; =;20      1585: c3,b4,g7; a1,b5; =;15      1659: f3,b2,b7; h1,b5; =;22
1512: c5,d4,h5; b7,b5; =;20      1586: c3,b4,b6; a1,b5; =;15      1660: g3,d3,d8; g1,b5; =;19
1513: c5,d4,e4; b7,b5; =;20      1587: c3,b4,d6; a1,b5; =;13      1661: g3,d3,f8; g1,b5; =;19
1514: c5,d4,g4; b7,b5; =;20      1588: c3,b4,f6; a1,b5; =;13      1662: g3,d3,h8; g1,b5; =;19
1515: c5,d2,d7; b7,b5; =;20      1589: c3,b4,h6; a1,b5; =;13      1663: g3,b2,e6; g1,b5; =;19
1516: c5,d2,h5; b7,b5; =;20      1590: c3,b4,g5; a1,b5; =;13      1664: g3,b2,g6; g1,b5; =;19
1517: c5,d2,e4; b7,b5; =;20      1591: c3,b4,h4; a1,b5; =;15      1665: g3,b2,h5; g1,b5; =;19
1518: c5,d2,g4; b7,b5; =;20      1592: c3,b4,h2; a1,b5; =;13      1666: g3,b4,d8; h1,b5; =;20
1519: c5,a1,d7; b7,b5; =;20      1593: c3,b4,d5; b1,b5; =;14      1667: g3,a3,b1; h1,b5; =; 7
1520: c5,a1,h5; b7,b5; =;20      1594: c3,b4,f5; b1,b5; =;14      1668: h3,d3,d8; h1,b5; =;20
1521: c5,a1,e4; b7,b5; =;20      1595: c3,b4,e4; b1,b5; =;12      1669: h3,d3,f8; h1,b5; =;20
1522: c5,a1,g4; b7,b5; =;20      1596: c3,b4,g4; b1,b5; =;12      1670: h3,d3,h8; h1,b5; =;20
1523: c5,c1,d7; b7,b5; =;20      1597: c3,b4,h3; b1,b5; =;12      1671: h3,b2,e6; h1,b5; =;20
1524: c5,c1,h5; b7,b5; =;20      1598: c3,b4,c2; b1,b5; =;14      1672: h3,b2,g6; h1,b5; =;20
1525: c5,c1,e4; b7,b5; =;20      1599: c3,b4,g2; b1,b5; =;12      1673: h3,b2,h5; h1,b5; =;20
1526: c5,c1,g4; b7,b5; =;20      1600: c3,b4,f1; b1,b5; =;14      1674: d2,d3,f4; f1,b5; =;16
1527: c5,a5,f6; c7,b5; =;17      1601: c3,b4,h1; b1,b5; =;12      1675: d2,d1,f4; f1,b5; =;18
1528: c5,b4,f6; c7,b5; =;13      1602: c3,b4,e3; c1,b5; =;13      1676: e2,d6,f5; g2,b5; =;22
1529: c5,d4,f6; c7,b5; =;19      1603: c3,b4,f2; c1,b5; =;11      1677: e2,a5,f5; g2,b5; =;12
1530: c5,d2,f6; c7,b5; =;19      1604: c3,b2,b4; c1,b5; =;11      1678: e2,a3,f5; g2,b5; =;22
1531: c5,a1,f6; c7,b5; =;19      1605: e3,b2,e6; e1,b5; =;17      1679: e2,d2,f5; g2,b5; =;11
1532: c5,c1,f6; c7,b5; =;19      1606: e3,b2,g6; e1,b5; =;17      1680: e2,a1,f5; g2,b5; =;12
1533: c5,d4,e2; a6,b5; =;21      1607: e3,b2,d5; e1,b5; =;17      1681: e2,a5,d4; g1,b5; =;13
1534: c5,d2,e2; a6,b5; =;21      1608: e3,b2,f5; e1,b5; =;17      1682: e2,a5,h4; g1,b5; =;11
1535: c5,a1,e2; a6,b5; =;21      1609: e3,b2,h5; e1,b5; =;17      1683: e2,a5,e1; g1,b5; =;11
```

```
1684: e2,b3,f5; g1,b5; =;12      1758: b5,b3,f6; b7,b4; =;17      1832: f3,b2,g7; h1,b4; =;21
1685: e2,b2,g7; g1,b5; =;23      1759: c5,b3,d7; b7,b4; =;17      1833: f3,b2,d6; h1,b4; =;23
1686: e2,b2,d6; g1,b5; =;23      1760: c5,b3,h5; b7,b4; =;17      1834: g3,a4,d3; g1,b4; =;16
1687: e2,b2,h6; g1,b5; =;23      1761: c5,b3,e4; b7,b4; =;17      1835: g3,a4,d2; g1,b4; =; 3
1688: e2,a1,d4; g1,b5; =;13      1762: c5,b3,g4; b7,b4; =;17      1836: g3,a4,h2; g1,b4; =; 3
1689: e2,a1,h4; g1,b5; =;11      1763: c5,b3,f6; c7,b4; =;16      1837: g3,d3,e6; g1,b4; =;18
1690: e2,a1,e1; g1,b5; =;11      1764: c4,b3,d7; a6,b4; =;19      1838: g3,d3,g6; g1,b4; =;18
1691: f2,a5,f5; h2,b5; =;11      1765: f4,b3,e4; h2,b4; =;18      1839: g3,d3,h5; g1,b4; =;18
1692: f2,a3,f5; h2,b5; =;21      1766: g4,a4,d3; g2,b4; =;18      1840: g3,b2,c5; g1,b4; =;20
1693: f2,a1,f5; h2,b5; =;11      1767: g4,b3,e4; g2,b4; =;15      1841: g3,b2,d4; g1,b4; =;20
1694: e1,b6,f5; g1,b5; =;23      1768: g4,b3,d3; g2,b4; =;10      1842: g3,b2,f4; g1,b4; =;18
1695: e1,d6,f5; g1,b5; =;23      1769: g4,b3,h3; g2,b4; =;12      1843: g3,b2,c1; g1,b4; =;20
1696: e1,a5,f5; g1,b5; =;13      1770: g4,b3,d1; g2,b4; =;13      1844: g3,b1,d2; g1,b4; =; 3
1697: e1,c5,f5; g1,b5; =;13      1771: g4,d3,h3; g2,b4; =;18      1845: g3,a6,b2; h1,b4; =;21
1698: e1,e5,f5; g1,b5; =;23      1772: g4,b3,d2; h2,b4; =;16      1846: g3,a4,b1; h1,b4; =; 6
1699: e1,d4,f5; g1,b5; =;12      1773: g4,d3,g5; h2,b4; =;20      1847: g3,d3,d8; h1,b4; =;19
1700: e1,a3,f5; g1,b5; =;23      1774: h4,a4,d3; h2,b4; =;19      1848: g3,b2,b7; h1,b4; =;21
1701: e1,c3,f5; g1,b5; =;23      1775: h4,b3,e4; h2,b4; =;16      1849: g3,b1,c4; h1,b4; =; 6
1702: e1,e3,f5; g1,b5; =;23      1776: h4,b3,d3; h2,b4; =;11      1850: h3,a4,d3; h1,b4; =;17
1703: e1,b2,f5; g1,b5; =;23      1777: b3,a3,a5; a1,b4; =; 0      1851: h3,d3,e6; h1,b4; =;19
1704: e1,d2,f5; g1,b5; =;12      1778: b3,a3,c5; a1,b4; =; 0      1852: h3,d3,g6; h1,b4; =;19
1705: e1,a1,f5; g1,b5; =;13      1779: b3,a3,c1; a1,b4; =; 0      1853: h3,d3,h5; h1,b4; =;19
1706: e1,c1,f5; g1,b5; =;13      1780: e3,b2,c5; e1,b4; =;20      1854: h3,b2,c5; h1,b4; =;21
1707: f1,b6,g5; h1,b5; =;17      1781: e3,b2,d4; e1,b4; =;20      1855: e2,a4,f5; g2,b4; =;21
1708: f1,b6,g1; h1,b5; =;17      1782: e3,b2,f4; e1,b4; =;16      1856: e2,c4,f5; g2,b4; =;21
1709: f1,a5,f5; h1,b5; =;12      1783: e3,b2,g3; e1,b4; =;16      1857: e2,b3,f5; g2,b4; =;10
1710: f1,a3,f5; h1,b5; =;22      1784: e3,b2,c1; e1,b4; =;20      1858: e2,d1,f5; g2,b4; =;21
1711: f1,a3,g5; h1,b5; =;17      1785: e3,a4,f4; f1,b4; =;17      1859: e2,b3,d4; g1,b4; =;11
1712: f1,a3,g1; h1,b5; =;17      1786: e3,c4,f4; f1,b4; =;17      1860: e2,b3,h4; g1,b4; =; 9
1713: f1,a1,f5; h1,b5; =;12      1787: e3,d3,f4; f1,b4; =;15      1861: e2,b3,e1; g1,b4; =; 9
1714: c8,a2,c6; a8,b4; =; 2      1788: e3,d1,f4; f1,b4; =;17      1862: e2,b2,f5; g1,b4; =;22
1715: d8,b3,d1; b8,b4; =;14      1789: f3,a4,g6; h3,b4; =;17      1863: f2,a4,f5; h2,b4; =;20
1716: c7,a4,b1; a8,b4; =;11      1790: f3,a4,f5; h3,b4; =;19      1864: f2,a4,g5; h2,b4; =;15
1717: c7,a4,d1; a8,b4; =;11      1791: f3,a4,g2; h3,b4; =;17      1865: f2,a4,g1; h2,b4; =;15
1718: c7,a2,c8; a8,b4; =; 2      1792: f3,c4,g6; h3,b4; =;17      1866: f2,c4,f5; h2,b4; =;20
1719: c7,a2,d7; a8,b4; =;13      1793: f3,c4,f5; h3,b4; =;19      1867: f2,b3,f5; h2,b4; =; 9
1720: c7,a2,a4; a8,b4; =;13      1794: f3,c4,g2; h3,b4; =;17      1868: f2,d1,f5; h2,b4; =;20
1721: c7,b1,d7; a8,b4; =;11      1795: f3,b3,g6; h3,b4; =; 6      1869: e1,a4,f5; g1,b4; =;22
1722: c7,d1,d7; a8,b4; =;11      1796: f3,b3,f5; h3,b4; =; 8      1870: e1,c4,f5; g1,b4; =;22
1723: c7,b8,d1; a7,b4; =;12      1797: f3,b3,g2; h3,b4; =; 6      1871: e1,b3,f5; g1,b4; =;11
1724: c7,a2,b8; a7,b4; =;14      1798: f3,d1,g6; h3,b4; =;17      1872: e1,d3,f5; g1,b4; =;22
1725: c7,b1,b8; a7,b4; =;12      1799: f3,d1,f5; h3,b4; =;19      1873: e1,d1,f5; g1,b4; =;22
1726: c7,b3,b6; b5,b4; =; 8      1800: f3,d1,g2; h3,b4; =;17      1874: f1,a4,f5; h1,b4; =;21
1727: d7,b3,f2; b8,b4; =; 9      1801: f3,b3,e5; h2,b4; =; 7      1875: f1,a4,g5; h1,b4; =;16
1728: d7,a4,b3; b7,b4; =; 9      1802: f3,b3,d4; h2,b4; =; 9      1876: f1,a4,g1; h1,b4; =;16
1729: d7,b3,f7; b7,b4; =; 8      1803: f3,b3,h4; h2,b4; =; 7      1877: f1,c4,f5; h1,b4; =;21
1730: d7,b3,e4; b7,b4; =; 8      1804: f3,b3,f2; h2,b4; =; 7      1878: f1,c4,g5; h1,b4; =;16
1731: d7,b3,d3; b7,b4; =;10      1805: f3,b3,e1; h2,b4; =; 7      1879: f1,c4,g1; h1,b4; =;16
1732: d7,b3,d1; b7,b4; =;13      1806: f3,b2,f5; h2,b4; =;20      1880: f1,b3,f5; h1,b4; =;10
1733: d7,b3,d6; b6,b4; =; 7      1807: f3,b2,g5; h2,b4; =;19      1881: f1,d1,f5; h1,b4; =;21
1734: d7,b2,b3; b6,b4; =; 9      1808: f3,b3,f2; e1,b4; =;10      1882: g4,b2,d3; g2,b3; =;17
1735: e7,b3,f3; c8,b4; =;13      1809: f3,b2,b3; e1,b4; =;10      1883: g4,b2,h3; g2,b3; =;17
1736: e7,b3,c2; c8,b4; =;13      1810: f3,a4,d3; f1,b4; =;15      1884: g4,b2,g5; h2,b3; =;19
1737: e7,b3,e2; c8,b4; =;13      1811: f3,a4,g2; f1,b4; =;10      1885: h4,b2,d3; h2,b3; =;18
1738: e7,b3,d4; c7,b4; =;12      1812: f3,b3,c4; f1,b4; =;11      1886: a3,b4,c3; a1,b3; =; 1
1739: a6,b3,f6; a8,b4; =;17      1813: f3,b3,e4; f1,b4; =;13      1887: a3,b4,d2; a1,b3; =; 1
1740: a6,a2,d7; a8,b4; =; 2      1814: f3,b3,g4; f1,b4; =;11      1888: a3,c3,e3; a1,b3; =; 1
1741: a6,a2,c6; a8,b4; =; 2      1815: f3,b3,h3; f1,b4; =;11      1889: a3,c3,e1; a1,b3; =; 1
1742: b6,b3,f6; b8,b4; =;16      1816: f3,b3,d1; f1,b4; =;11      1890: a3,d2,e3; a1,b3; =; 1
1743: c6,b3,b7; c8,b4; =; 6      1817: f3,d3,e6; f1,b4; =;17      1891: a3,d2,e1; a1,b3; =; 1
1744: c6,b3,f6; c8,b4; =;15      1818: f3,d3,g6; f1,b4; =;17      1892: e3,b2,e6; e1,b3; =;15
1745: d6,a8,b3; c8,b4; =;13      1819: f3,d3,h5; f1,b4; =;17      1893: e3,b2,g6; e1,b3; =;15
1746: d6,a6,b3; c8,b4; =;13      1820: f3,d3,h3; f1,b4; =;17      1894: e3,b2,d5; e1,b3; =;15
1747: d6,b3,d7; c8,b4; =;15      1821: f3,d3,e2; f1,b4; =;17      1895: e3,b2,h5; e1,b3; =;15
1748: d6,b3,h5; c8,b4; =;13      1822: f3,b2,c5; f1,b4; =;19      1896: e3,b2,h3; e1,b3; =;15
1749: d6,b3,e4; c8,b4; =;15      1823: f3,b2,d4; f1,b4; =;19      1897: e3,b2,e2; e1,b3; =;15
1750: d6,b3,g4; c8,b4; =;15      1824: f3,b2,f4; f1,b4; =;17      1898: e3,b2,f4; f1,b3; =;14
1751: d6,b3,c7; d8,b4; =;12      1825: f3,b2,c1; f1,b4; =;19      1899: f3,b2,g6; h3,b3; =;16
1752: d6,b3,g7; d8,b4; =;12      1826: f3,d3,g5; g1,b4; =;18      1900: f3,b2,f5; h3,b3; =;18
1753: d6,b3,f6; d8,b4; =;14      1827: f3,b2,e6; g1,b4; =;18      1901: f3,b2,g2; h3,b3; =;16
1754: d6,b3,f2; b7,b4; =;16      1828: f3,b2,g6; g1,b4; =;18      1902: f3,b2,e6; f1,b3; =;16
1755: d6,b3,d3; b6,b4; =;11      1829: f3,b2,h5; g1,b4; =;18      1903: f3,b2,g6; f1,b3; =;16
1756: d6,b3,d1; b6,b4; =;14      1830: f3,b2,e4; g1,b4; =;22      1904: f3,b2,d5; f1,b3; =;16
1757: a5,b3,f6; a7,b4; =;18      1831: f3,b2,d3; g1,b4; =;18      1905: f3,b2,h5; f1,b3; =;16
```

1906: f3,b2,d3; f1,b3; =;14
1907: f3,b2,h3; f1,b3; =;16
1908: f3,b2,e2; f1,b3; =;16
1909: f3,b2,g2; f1,b3; =; 9
1910: f3,b2,g5; g1,b3; =;17
1911: g3,b2,e6; g1,b3; =;17
1912: g3,b2,g6; g1,b3; =;17
1913: g3,b2,h5; g1,b3; =;17
1914: g3,b2,d3; g1,b3; =;15
1915: g3,b2,d2; g1,b3; =; 4
1916: g3,b2,h2; g1,b3; =; 4
1917: g3,b2,d8; h1,b3; =;18
1918: h3,b2,e6; h1,b3; =;18
1919: h3,b2,g6; h1,b3; =;18
1920: h3,b2,h5; h1,b3; =;18
1921: h3,b2,d3; h1,b3; =;16
1922: h3,b2,d2; h1,b3; =; 5
1923: h3,b2,h2; h1,b3; =; 5
1924: e2,b2,f5; g2,b3; =;20
1925: f2,b2,f5; h2,b3; =;19
1926: f2,b2,g5; h2,b3; =;14
1927: f2,b2,g1; h2,b3; =;14
1928: e1,b2,f5; g1,b3; =;21
1929: f1,b2,f5; h1,b3; =;20
1930: f1,b2,g5; h1,b3; =;15
1931: f1,b2,g1; h1,b3; =;15
1932: a8,b8,c6; b6,c7; =;43
1933: f8,a8,f5; h8,c7; =; 8
1934: b7,d2,e8; b5,c7; =;52
1935: b7,c8,f5; c5,c7; =;50
1936: b7,d5,e3; c5,c7; =;51
1937: d7,c8,e8; b7,c7; =;47
1938: d7,b7,d5; b5,c7; =;51
1939: d7,d2,e8; b5,c7; =;52
1940: d7,c8,e8; c5,c7; =;50
1941: d7,c8,f5; c5,c7; =;50
1942: d7,e8,f5; c5,c7; =;55
1943: d7,e8,f1; c5,c7; =;55
1944: d7,a3,b5; c5,c7; =;51
1945: d7,e8,f7; f5,c7; =;51
1946: f7,a8,h4; h8,c7; =; 8
1947: f7,a8,e3; h8,c7; =;31
1948: f7,a8,g3; h8,c7; =;32
1949: f7,a8,f2; h8,c7; =;32
1950: f7,a8,g8; h7,c7; =; 5
1951: f7,a8,f5; h7,c7; =; 7
1952: f7,a8,g4; h7,c7; =; 5
1953: a6,b7,g1; c6,c7; =;68
1954: a6,b7,e2; d5,c7; =;67
1955: c6,a7,c8; b8,c7; =;19
1956: c6,a7,b5; b8,c7; =;19
1957: c6,b8,d7; a7,c7; =;12
1958: c6,a6,b8; a7,c7; =;12
1959: c6,d8,e6; e7,c7; =;36
1960: c6,e8,f6; e7,c7; =;54
1961: c6,e7,f5; e6,c7; =;53
1962: c6,h4,h8; f6,c7; =;45
1963: c6,h7,h8; f5,c7; =;44
1964: c6,g6,h8; f5,c7; =;55
1965: c6,a5,b7; b4,c7; =;42
1966: c6,b4,d3; c4,c7; =;49
1967: c6,b3,d4; c4,c7; =;48
1968: c6,d3,e5; d4,c7; =;72
1969: c6,e5,g4; f4,c7; =;51
1970: c6,h1,h2; f4,c7; =;46
1971: c6,a1,e1; c3,c7; =;47
1972: c6,g1,h1; e3,c7; =;45
1973: f6,e8,g7; f8,c7; =; 7
1974: g6,a8,d7; g8,c7; =; 5
1975: g6,a8,h7; g8,c7; =; 5
1976: g6,a8,e6; g8,c7; =; 7
1977: g6,a8,d8; h8,c7; =; 8
1978: g6,a8,c5; h8,c7; =; 6
1979: g6,a8,f4; h8,c7; =; 8

1980: c5,g6,h8; g5,c7; =;54
1981: e5,b7,d5; c4,c7; =;48
1982: c4,a8,c5; a5,c7; =;15
1983: b3,a3,a8; a1,c7; =;34
1984: e3,d2,e8; c2,c7; =;44
1985: f3,a8,g6; h3,c7; =;56
1986: f3,a8,g2; h3,c7; =;56
1987: f3,a8,c2; f1,c7; =;17
1988: f3,a8,g2; f1,c7; =;17
1989: g3,e8,h4; g5,c7; =;57
1990: g3,a8,d2; g1,c7; =;38
1991: g3,a8,h2; g1,c7; =; 6
1992: c2,b5,f6; a2,c7; =;40
1993: d2,c3,c8; b3,c7; =;64
1994: f2,a8,g5; h2,c7; =; 6
1995: f2,a8,g1; h2,c7; =; 6
1996: f1,a8,g5; h1,c7; =;44
1997: f1,a8,g1; h1,c7; =;44
1998: b6,b8,c7; d6,c6; =;58
1999: b6,a5,e7; b4,c6; =;49
2000: b6,d2,e7; b4,c6; =;47
2001: b6,d2,f6; b4,c6; =;47
2002: b6,d2,f4; b4,c6; =;46
2003: b6,a7,b2; d4,c6; =;66
2004: d6,c7,e7; b7,c6; =;49
2005: d6,c7,d8; b6,c6; =;32
2006: d6,a7,e5; d4,c6; =;49
2007: d6,a7,b2; d4,c6; =;47
2008: d6,a3,c5; c3,c6; =;32
2009: f6,c8,f5; d5,c6; =;51
2010: g6,c3,f7; e6,c6; =;56
2011: a5,a7,e7; c7,c6; =;67
2012: a5,c7,f7; c5,c6; =;68
2013: a5,a4,c3; c4,c6; =;67
2014: c5,a7,b3; d8,c6; =;67
2015: c5,a6,c7; b7,c6; =;33
2016: c5,a6,b4; b7,c6; =;33
2017: c5,a7,e7; c7,c6; =;47
2018: c5,a5,a7; c7,c6; =;38
2019: c5,a7,g8; d7,c6; =;49
2020: c5,c7,e6; d7,c6; =;43
2021: c5,a5,b7; a6,c6; =;15
2022: c5,d7,e5; e6,c6; =;39
2023: c5,e7,f5; e6,c6; =;53
2024: c5,d8,h8; f6,c6; =;48
2025: c5,h4,h8; f6,c6; =;53
2026: c5,h7,h8; f5,c6; =;51
2027: c5,a5,b3; a4,c6; =;47
2028: c5,e5,g4; f4,c6; =;50
2029: c5,h1,h2; f4,c6; =;51
2030: c5,a4,b6; b3,c6; =;47
2031: c5,a1,e1; c3,c6; =;50
2032: c5,d3,f4; e3,c6; =;71
2033: c5,g1,h1; e3,c6; =;50
2034: c5,f5,h1; f3,c6; =;50
2035: c5,h1,h5; f3,c6; =;52
2036: c5,a2,b4; b2,c6; =;50
2037: a4,a7,f7; d4,c6; =;75
2038: c4,b6,c3; c2,c6; =;63
2039: c4,c3,e5; c2,c6; =;65
2040: c4,c3,f4; c2,c6; =;65
2041: c4,c3,f2; c2,c6; =;65
2042: e4,b7,c7; c4,c6; =;42
2043: e4,b7,f4; c4,c6; =;43
2044: e4,b4,f3; e2,c6; =;46
2045: f4,a1,b8; h4,c6; =;55
2046: a3,a7,f8; e5,c6; =;69
2047: a3,b8,e6; c4,c6; =;70
2048: a3,b8,d6; c3,c6; =;61
2049: a3,a7,b4; c3,c6; =;65
2050: a3,d6,d8; c3,c6; =;61
2051: a3,a5,a7; c3,c6; =;62
2052: a3,a5,c7; c3,c6; =;62
2053: a3,b4,c7; c3,c6; =;63

2054: a3,e2,e7; c2,c6; =;69
2055: b3,e7,f6; d4,c6; =;66
2056: e3,d2,e7; c3,c6; =;44
2057: a2,a3,b8; c3,c6; =;64
2058: a2,a3,d8; c3,c6; =;64
2059: a2,b1,b8; c2,c6; =;63
2060: a2,b1,d8; c2,c6; =;63
2061: a2,b8,c3; c1,c6; =;64
2062: a2,c3,d8; c1,c6; =;64
2063: c2,b8,c7; a3,c6; =;61
2064: c2,a7,b8; a3,c6; =;63
2065: c2,a7,c7; a3,c6; =;61
2066: c2,e1,e7; a3,c6; =;62
2067: d2,a7,g7; e5,c6; =;65
2068: a1,a7,b1; b3,c6; =;62
2069: a1,a3,b1; b3,c6; =;62
2070: a1,b1,e7; b3,c6; =;62
2071: a1,c7,e2; c2,c6; =;66
2072: a1,a2,a7; c2,c6; =;64
2073: a1,a2,c7; c2,c6; =;64
2074: a1,c7,g1; c1,c6; =;67
2075: b1,c7,e7; a3,c6; =;70
2076: b1,a6,b4; b3,c6; =;65
2077: b1,a2,b8; b3,c6; =;63
2078: b1,a2,f8; b3,c6; =;63
2079: b1,b8,c1; c3,c6; =;64
2080: b1,c1,f8; c3,c6; =;64
2081: c1,c7,f5; b3,c6; =;65
2082: c1,e7,f5; b3,c6; =;65
2083: c1,a3,b1; b3,c6; =;62
2084: c1,c2,c7; b3,c6; =;65
2085: c1,c2,e7; b3,c6; =;65
2086: c1,c7,e2; a1,c6; =;61
2087: c1,a4,c3; a1,c6; =;61
2088: c1,e2,e7; a1,c6; =;62
2089: c1,e2,f6; a1,c6; =;62
2090: c1,e2,f4; a1,c6; =;62
2091: c1,e2,f2; a1,c6; =;62
2092: d1,a7,e2; d3,c6; =;63
2093: d1,c7,e2; d3,c6; =;63
2094: d1,e2,g7; d3,c6; =;64
2095: e1,b7,e2; d3,c6; =;64
2096: e1,a6,e2; d3,c6; =;64
2097: e1,e2,e6; d3,c6; =;63
2098: e1,a7,f2; e3,c6; =;63
2099: e1,c7,f2; e3,c6; =;62
2100: e1,c7,h1; f3,c6; =;67
2101: f1,a7,g2; f3,c6; =;63
2102: f1,c7,g2; f3,c6; =;63
2103: a8,a2,c3; a6,c5; =;68
2104: a8,b7,c3; b6,c5; =;62
2105: b8,a2,c3; b6,c5; =;67
2106: c8,c3,d7; d6,c5; =;68
2107: d8,c2,g6; b8,c5; =;62
2108: d8,c2,g2; b8,c5; =;49
2109: c7,b7,e6; a7,c5; =;10
2110: c7,b3,e6; a7,c5; =;10
2111: d7,c2,g4; b7,c5; =;48
2112: d7,c2,d3; b7,c5; =;48
2113: d7,c2,g2; b7,c5; =;48
2114: d7,c2,f1; b7,c5; =;48
2115: b6,e6,g4; b8,c5; =;15
2116: b6,e6,f3; b8,c5; =;28
2117: b6,e6,g2; b8,c5; =;15
2118: b6,e6,f1; b8,c5; =;15
2119: b6,b3,e6; b8,c5; =;30
2120: b6,d3,e6; b8,c5; =;28
2121: b6,c7,f3; d6,c5; =;58
2122: b6,c6,c7; d6,c5; =;57
2123: c6,b3,e1; b8,c5; =;60
2124: c6,d3,e1; b8,c5; =;60
2125: c6,a1,b3; b8,c5; =;60
2126: c6,a1,d3; b8,c5; =;60
2127: c6,a6,e6; c8,c5; =;14

```
2128: c6,e6,g4; c8,c5; =;14
2129: c6,e6,f3; c8,c5; =;27
2130: c6,e6,g2; c8,c5; =;14
2131: c6,e6,f1; c8,c5; =;14
2132: c6,b3,e6; c8,c5; =;29
2133: c6,d3,e6; c8,c5; =;27
2134: c6,c2,e6; c8,c5; =;14
2135: c6,e1,f8; c8,c5; =;70
2136: c6,e1,g7; c8,c5; =;70
2137: c6,d7,d8; a7,c5; =;12
2138: c6,a8,c2; a6,c5; =;35
2139: c6,b7,f5; a6,c5; =;15
2140: c6,b7,g4; a6,c5; =;15
2141: c6,b7,d3; a6,c5; =;11
2142: c6,b7,f3; a6,c5; =;15
2143: c6,b7,c2; a6,c5; =;12
2144: c6,b7,g2; a6,c5; =;15
2145: c6,b7,f1; a6,c5; =;15
2146: c6,b3,b7; a6,c5; =;11
2147: c6,b3,d3; a6,c5; =;14
2148: c6,b3,c2; a6,c5; =;14
2149: c6,c2,c8; a6,c5; =;35
2150: c6,c2,d7; a6,c5; =;35
2151: c6,c3,d2; a5,c5; =;45
2152: d6,c2,h7; b8,c5; =;47
2153: d6,c2,h5; b8,c5; =;47
2154: d6,c2,g4; b8,c5; =;40
2155: d6,c2,d3; b8,c5; =;47
2156: d6,c2,h3; b8,c5; =;47
2157: d6,c2,g2; b8,c5; =;40
2158: d6,c2,f1; b8,c5; =;40
2159: d6,c6,c7; b6,c5; =;31
2160: a5,b3,e6; a7,c5; =;32
2161: a5,d3,e6; a7,c5; =;30
2162: a5,e1,f8; a7,c5; =;72
2163: a5,a4,b1; c4,c5; =;66
2164: b5,b7,e2; d5,c5; =;65
2165: b5,a1,c4; c3,c5; =;46
2166: b5,a4,b1; d3,c5; =;65
2167: d5,a1,c4; c3,c5; =;46
2168: d5,a2,c4; c2,c5; =;48
2169: e5,c1,e4; g4,c5; =;56
2170: g5,d1,h4; g3,c5; =;29
2171: g5,c6,g4; h3,c5; =;47
2172: h5,e2,h4; h3,c5; =;28
2173: a4,c8,e6; a6,c5; =;67
2174: a4,c8,d3; a6,c5; =;42
2175: a4,c6,e6; a6,c5; =;63
2176: a4,b3,c8; a6,c5; =;44
2177: a4,d3,e6; a6,c5; =;68
2178: c4,a6,e6; c8,c5; =;59
2179: c4,a7,b5; b7,c5; =;49
2180: c4,a6,g7; d7,c5; =;66
2181: c4,a5,c6; b6,c5; =;60
2182: c4,a5,b3; b6,c5; =;60
2183: c4,a8,e8; c6,c5; =;59
2184: c4,a6,e6; c6,c5; =;65
2185: c4,a4,a6; c6,c5; =;57
2186: c4,a8,b8; d6,c5; =;65
2187: c4,a6,b8; d6,c5; =;65
2188: c4,a6,f8; d6,c5; =;66
2189: c4,c6,e5; d6,c5; =;63
2190: c4,f7,h6; e6,c5; =;66
2191: c4,f4,h8; f6,c5; =;65
2192: c4,a8,b6; a5,c5; =;56
2193: c4,b6,c8; a5,c5; =;41
2194: c4,b6,d7; a5,c5; =;39
2195: c4,b6,d5; a5,c5; =;39
2196: c4,a4,b6; a5,c5; =;39
2197: c4,c1,f2; a5,c5; =;52
2198: c4,d6,e4; e5,c5; =;58
2199: c4,a1,c2; a4,c5; =;51
2200: c4,c1,d1; a4,c5; =;39
2201: c4,g2,h4; e4,c5; =;61

2202: c4,g2,h2; e4,c5; =;61
2203: c4,g1,g2; e4,c5; =;58
2204: c4,a4,c3; c2,c5; =;62
2205: c4,c3,d3; c2,c5; =;64
2206: c4,c3,d1; c2,c5; =;64
2207: c4,b3,c2; e2,c5; =;64
2208: c4,a3,a4; c1,c5; =;61
2209: c4,a4,b1; d1,c5; =;63
2210: c4,a3,b3; d1,c5; =;63
2211: c4,d3,e4; d1,c5; =;65
2212: c4,a1,b3; d1,c5; =;67
2213: c4,b3,e3; e1,c5; =;65
2214: c4,c1,e4; e1,c5; =;66
2215: e4,b8,d5; d6,c5; =;53
2216: e4,b7,d5; c4,c5; =;41
2217: e4,c1,d5; c4,c5; =;65
2218: f4,b3,g7; h4,c5; =;38
2219: f4,b3,f6; h4,c5; =;24
2220: f4,b3,g3; h4,c5; =;20
2221: f4,d3,g7; h4,c5; =;20
2222: f4,d3,f6; h4,c5; =;22
2223: f4,d3,g3; h4,c5; =;20
2224: f4,a1,e8; h4,c5; =;54
2225: f4,a1,g8; h4,c5; =;54
2226: f4,a1,d7; h4,c5; =;54
2227: f4,a1,h7; h4,c5; =;54
2228: f4,a1,g4; h4,c5; =;54
2229: f4,a1,f1; h4,c5; =;54
2230: f4,a1,h1; h4,c5; =;54
2231: f4,a6,f1; h3,c5; =;38
2232: f4,g4,h5; h3,c5; =;20
2233: f4,b3,h5; h3,c5; =;59
2234: f4,b3,f1; h3,c5; =;37
2235: f4,d3,h5; h3,c5; =;21
2236: f4,d3,h1; h3,c5; =;21
2237: f4,f3,h5; h3,c5; =;38
2238: f4,f1,h5; h3,c5; =;38
2239: f4,f1,g4; h3,c5; =;20
2240: f4,f1,h1; h3,c5; =;45
2241: a3,c6,d6; c3,c5; =;60
2242: a3,b1,c3; c2,c5; =;62
2243: e3,a6,f2; e1,c5; =;39
2244: f3,c2,f1; h4,c5; =;55
2245: f3,c2,h1; h4,c5; =;55
2246: f3,b3,f6; h3,c5; =;25
2247: f3,b3,g2; h3,c5; =; 9
2248: f3,a6,f2; f1,c5; =;40
2249: g3,a6,f2; g1,c5; =;41
2250: h3,c3,g2; f2,c5; =;59
2251: a2,a6,b1; c2,c5; =;62
2252: a2,b1,c6; c2,c5; =;62
2253: c2,a6,c7; a3,c5; =;61
2254: c2,c6,c7; a3,c5; =;61
2255: c2,a6,b5; a2,c5; =;11
2256: c2,a6,b1; a2,c5; =;11
2257: c2,b5,c6; a2,c5; =; 9
2258: c2,b5,d5; a2,c5; =; 9
2259: c2,b1,c6; a2,c5; =; 9
2260: c2,b1,d5; a2,c5; =; 9
2261: c2,b7,c1; a1,c5; =; 2
2262: c2,a6,c1; a1,c5; =; 2
2263: c2,d5,e1; a1,c5; =;59
2264: c2,d3,e1; a1,c5; =;62
2265: c2,a2,c1; a1,c5; =; 2
2266: c2,c1,d7; a1,c5; =; 2
2267: c2,c1,c6; a1,c5; =; 2
2268: c2,c1,e6; a1,c5; =; 2
2269: c2,c1,f5; a1,c5; =; 2
2270: c2,c1,f3; a1,c5; =; 2
2271: c2,c1,f1; a1,c5; =; 2
2272: e2,b3,f6; g2,c5; =;28
2273: e2,a1,d7; g2,c5; =;56
2274: e2,a1,h7; g2,c5; =;58
2275: e2,a6,d7; g1,c5; =;39

2276: e2,c6,d7; g1,c5; =;37
2277: e2,c6,h7; g1,c5; =;56
2278: b1,a6,d5; b3,c5; =;62
2279: b1,d5,e6; b3,c5; =;62
2280: b1,a2,d7; b3,c5; =;62
2281: b1,a2,a6; b3,c5; =;62
2282: b1,a2,e6; b3,c5; =;62
2283: c1,d5,f5; b3,c5; =;62
2284: c1,a2,c3; b3,c5; =;60
2285: c1,c2,d5; b3,c5; =;62
2286: c1,a6,b5; a1,c5; =;12
2287: c1,a6,b1; a1,c5; =;12
2288: c1,d5,e2; a1,c5; =;60
2289: c1,a4,d5; a1,c5; =;60
2290: c1,a4,d3; a1,c5; =;61
2291: c1,d3,e2; a1,c5; =;61
2292: d1,b7,e2; d3,c5; =;63
2293: d1,a6,e2; d3,c5; =;63
2294: d1,e2,e6; d3,c5; =;62
2295: g1,a2,h2; g3,c5; =;63
2296: g1,d1,h2; g3,c5; =;63
2297: h1,e4,h2; h3,c5; =;57
2298: h1,c3,g2; f2,c5; =;57
2299: a8,b7,c3; a6,c4; =;60
2300: b8,b7,c3; b6,c4; =;59
2301: c8,b7,c3; c6,c4; =;60
2302: c8,c3,d7; c6,c4; =;68
2303: d8,b4,c2; b8,c4; =;31
2304: d8,c2,c7; b8,c4; =;31
2305: d8,c2,e7; b8,c4; =;31
2306: d8,c2,f4; b8,c4; =;31
2307: d8,c2,e3; b8,c4; =;31
2308: d8,c3,d7; d6,c4; =;67
2309: b7,c3,c6; c5,c4; =;55
2310: d7,b4,d4; b8,c4; =;29
2311: d7,b4,e3; b8,c4; =;23
2312: d7,b4,e1; b8,c4; =;31
2313: d7,a3,e7; b8,c4; =;31
2314: d7,a3,b4; b8,c4; =;31
2315: d7,a1,b4; b8,c4; =;31
2316: d7,b4,c8; b7,c4; =;19
2317: d7,b4,c2; b7,c4; =;30
2318: d7,b2,c2; b7,c4; =;30
2319: d7,c2,c7; b7,c4; =;30
2320: d7,c2,e7; b7,c4; =;30
2321: d7,c2,f6; b7,c4; =;30
2322: d7,c2,f4; b7,c4; =;30
2323: d7,c2,e3; b7,c4; =;30
2324: d7,c3,c6; c5,c4; =;25
2325: f7,a3,f8; h8,c4; =; 2
2326: f7,b2,f8; h8,c4; =; 2
2327: a6,a3,e6; a8,c4; =;15
2328: a6,e3,e6; a8,c4; =;15
2329: a6,a1,e6; a8,c4; =;15
2330: a6,e1,e6; a8,c4; =;15
2331: b6,e6,f3; a8,c4; =;15
2332: b6,b4,e6; b8,c4; =;14
2333: b6,d4,e6; b8,c4; =;14
2334: b6,a3,e6; b8,c4; =;14
2335: b6,e3,e6; b8,c4; =;14
2336: b6,a1,e6; b8,c4; =;14
2337: b6,e1,e6; b8,c4; =;14
2338: c6,b7,d4; c8,c4; =; 8
2339: c6,b7,e3; c8,c4; =; 8
2340: c6,b7,e1; c8,c4; =; 8
2341: c6,b4,b7; c8,c4; =; 8
2342: c6,b4,f7; c8,c4; =; 8
2343: c6,b4,e6; c8,c4; =;13
2344: c6,d4,f7; c8,c4; =; 8
2345: c6,d4,e6; c8,c4; =;13
2346: c6,a3,b7; c8,c4; =; 8
2347: c6,a3,f7; c8,c4; =; 8
2348: c6,a3,e6; c8,c4; =;13
2349: c6,e3,f7; c8,c4; =; 8
```

```
2350: c6,e3,e6; c8,c4; =;13     2424: f4,d4,h1; h3,c4; =;18     2498: a1,b1,c3; b3,c4; =;60
2351: c6,a1,b7; c8,c4; =; 8     2425: f4,a3,e6; h3,c4; =;18     2499: a1,a2,c3; c2,c4; =;60
2352: c6,a1,f7; c8,c4; =; 8     2426: f4,a3,h5; h3,c4; =;18     2500: b1,a2,c3; b3,c4; =;59
2353: c6,a1,e6; c8,c4; =;13     2427: f4,a3,f1; h3,c4; =;18     2501: c1,a2,c3; a3,c4; =;60
2354: c6,e1,f7; c8,c4; =; 8     2428: f4,a3,h1; h3,c4; =;18     2502: c1,b1,c3; b3,c4; =;58
2355: c6,e1,e6; c8,c4; =;13     2429: f4,e3,f1; h3,c4; =;16     2503: e1,b4,f6; g1,c4; =;24
2356: c6,b7,d4; a6,c4; =;14     2430: f4,e3,h1; h3,c4; =;18     2504: e1,a3,f6; g1,c4; =;24
2357: c6,b7,e3; a6,c4; =;14     2431: f4,a1,e6; h3,c4; =;18     2505: e1,e3,f6; g1,c4; =;21
2358: c6,b7,e1; a6,c4; =;14     2432: f4,a1,h5; h3,c4; =;18     2506: e1,c2,e8; g1,c4; =;57
2359: c6,b6,c2; a6,c4; =;34     2433: f4,a1,f1; h3,c4; =;18     2507: e1,c2,g8; g1,c4; =;57
2360: c6,a3,b7; a6,c4; =;14     2434: f4,a1,h1; h3,c4; =;18     2508: e1,c2,d7; g1,c4; =;57
2361: c6,a1,b7; a6,c4; =;14     2435: f4,e1,f1; h3,c4; =;16     2509: e1,c2,h7; g1,c4; =;57
2362: d6,b6,c2; b8,c4; =;32     2436: f4,e1,h1; h3,c4; =;16     2510: e1,a1,f6; g1,c4; =;24
2363: d6,b4,c2; b8,c4; =;33     2437: g4,b6,e3; h2,c4; =;11     2511: f1,a3,f6; h1,c4; =;22
2364: d6,c2,c7; b8,c4; =;46     2438: g4,b6,e1; h2,c4; =;21     2512: f1,c2,e8; h1,c4; =;56
2365: d6,c2,f6; b8,c4; =;33     2439: a3,c7,e3; a5,c4; =;60     2513: f1,c2,g8; h1,c4; =;56
2366: d6,c2,f4; b8,c4; =;33     2440: a3,c7,d2; a5,c4; =;62     2514: f1,c2,d7; h1,c4; =;56
2367: d6,c2,e3; b8,c4; =;33     2441: a3,b2,c7; a5,c4; =;62     2515: f1,a1,f6; h1,c4; =;22
2368: g6,b2,e7; h8,c4; =; 2     2442: a3,b4,d6; c3,c4; =;59     2516: g1,c3,f1; f3,c4; =;55
2369: g6,b2,h6; h8,c4; =; 2     2443: a3,b4,g3; c3,c4; =;59     2517: g1,c3,h2; g3,c4; =;55
2370: g6,c1,e7; h8,c4; =; 2     2444: a3,a2,c3; c2,c4; =;57     2518: h1,c3,g2; f1,c4; =;57
2371: g6,c1,h6; h8,c4; =; 2     2445: a3,a5,d2; a1,c4; =; 1     2519: c8,c2,c4; a8,c3; =;17
2372: a5,b4,e6; a7,c4; =;16     2446: a3,c5,d2; a1,c4; =; 1     2520: d8,c2,d5; b8,c3; =;22
2373: a5,e3,e6; a7,c4; =;16     2447: a3,c1,d2; a1,c4; =; 1     2521: d8,c2,c4; b8,c3; =;18
2374: a5,a1,e6; a7,c4; =;16     2448: a3,b1,c3; c1,c4; =;60     2522: c7,a3,c2; a8,c3; =;17
2375: a5,e1,e6; a7,c4; =;16     2449: e3,b6,c2; g2,c4; =;53     2523: c7,c2,c4; a7,c3; =;16
2376: b5,c2,e6; a7,c4; =;16     2450: e3,b4,c2; g2,c4; =;53     2524: d7,b4,c2; b8,c3; =;22
2377: b5,b4,e6; b7,c4; =;15     2451: f3,c2,g3; h4,c4; =;54     2525: d7,c2,e7; b8,c3; =;19
2378: b5,d4,e6; b7,c4; =;15     2452: f3,b4,f6; h3,c4; =;20     2526: d7,a4,c2; b7,c3; =;19
2379: b5,a3,e6; b7,c4; =;15     2453: f3,b4,g2; h3,c4; =; 8     2527: d7,c2,c8; b7,c3; =;18
2380: b5,e3,e6; b7,c4; =;15     2454: f3,d4,f6; h3,c4; =;20     2528: d7,c2,d5; b7,c3; =;21
2381: b5,a1,e6; b7,c4; =;15     2455: f3,d4,g2; h3,c4; =; 8     2529: d7,c2,c4; b7,c3; =;17
2382: b5,e1,e6; b7,c4; =;15     2456: f3,a3,f6; h3,c4; =;20     2530: a6,c2,e6; a8,c3; =;14
2383: c5,b6,c2; a5,c4; =;33     2457: f3,a3,g2; h3,c4; =; 8     2531: b6,c2,e6; b8,c3; =;13
2384: g5,c3,f5; f3,c4; =;21     2458: f3,e3,f6; h3,c4; =;18     2532: c6,b7,c2; c8,c3; =; 7
2385: g5,b4,d4; g3,c4; =;33     2459: f3,e3,g2; h3,c4; =; 8     2533: c6,c2,f7; c8,c3; =; 7
2386: g5,d4,e3; g3,c4; =;33     2460: f3,c2,e8; h3,c4; =;55     2534: c6,c2,e6; c8,c3; =;12
2387: g5,d4,e1; g3,c4; =;33     2461: f3,c2,g8; h3,c4; =;55     2535: c6,c2,e7; a7,c3; =;18
2388: g5,a3,d4; g3,c4; =;33     2462: f3,c2,d7; h3,c4; =;55     2536: c6,b7,c2; a6,c3; =;13
2389: g5,c3,g7; g3,c4; =;27     2463: f3,c2,h7; h3,c4; =;55     2537: c6,a4,c2; a6,c3; =;17
2390: g5,c3,d6; g3,c4; =;25     2464: f3,c2,h5; h3,c4; =;55     2538: c6,b3,c2; a6,c3; =;13
2391: g5,c3,h4; g3,c4; =;26     2465: f3,c2,g4; h3,c4; =;55     2539: c6,c2,c8; a6,c3; =;17
2392: g5,a1,d4; g3,c4; =;33     2466: f3,c2,f1; h3,c4; =;55     2540: c6,c2,d7; a6,c3; =;17
2393: g5,a7,c2; h3,c4; =;32     2467: f3,c2,h1; h3,c4; =;55     2541: c6,c2,d5; a6,c3; =;19
2394: g5,c6,e3; h3,c4; =;34     2468: f3,a1,f6; h3,c4; =;20     2542: c6,c2,c4; a6,c3; =;15
2395: g5,c6,e1; h3,c4; =;34     2469: f3,a1,g2; h3,c4; =; 8     2543: c6,b6,c2; a5,c3; =;16
2396: g5,a3,c2; h3,c4; =;32     2470: f3,e1,f6; h3,c4; =;18     2544: d6,c2,d5; b8,c3; =;24
2397: g5,c2,e1; h3,c4; =;34     2471: f3,e1,g2; h3,c4; =; 8     2545: a5,c2,e6; a7,c3; =;15
2398: f4,b4,g7; h4,c4; =;17     2472: f3,a1,c2; f1,c4; =;13     2546: b5,c2,e6; b7,c3; =;14
2399: f4,b4,f6; h4,c4; =;19     2473: g3,a5,h2; h1,c4; =; 4     2547: g5,c2,d4; g3,c3; =;12
2400: f4,b4,g3; h4,c4; =;17     2474: h3,c3,g2; f3,c4; =;57     2548: g5,b5,c2; h3,c3; =;13
2401: f4,d4,g7; h4,c4; =;17     2475: a2,b1,c3; c2,c4; =;59     2549: g5,b3,c2; h3,c3; =;13
2402: f4,d4,f6; h4,c4; =;19     2476: c2,a5,c1; a1,c4; =; 1     2550: g5,c2,c6; h3,c3; =;13
2403: f4,d4,g3; h4,c4; =;17     2477: c2,b4,c1; a1,c4; =; 1     2551: c4,b3,b5; a4,c3; =; 9
2404: f4,a3,g7; h4,c4; =;17     2478: c2,c1,c5; a1,c4; =; 1     2552: c4,b1,b3; a4,c3; =; 9
2405: f4,a3,f6; h4,c4; =;19     2479: c2,c1,d4; a1,c4; =; 1     2553: f4,c2,g7; h4,c3; =;14
2406: f4,a3,g3; h4,c4; =;17     2480: c2,c1,d2; a1,c4; =; 1     2554: f4,c2,f6; h4,c3; =;16
2407: f4,e3,g7; h4,c4; =;15     2481: c2,e5,g3; e1,c4; =;59     2555: f4,c2,g3; h4,c3; =;14
2408: f4,e3,f6; h4,c4; =;17     2482: c2,c1,g3; e1,c4; =;57     2556: f4,c2,d5; h3,c3; =;17
2409: f4,e3,g3; h4,c4; =;15     2483: e2,b4,f6; g2,c4; =;23     2557: f4,c2,f1; h3,c3; =;15
2410: f4,a1,g7; h4,c4; =;17     2484: e2,d4,f6; g2,c4; =;23     2558: f4,c2,h1; h3,c3; =;15
2411: f4,a1,f6; h4,c4; =;19     2485: e2,a3,f6; g2,c4; =;23     2559: g4,c2,f4; f2,c3; =; 6
2412: f4,a1,g3; h4,c4; =;17     2486: e2,c2,e8; g2,c4; =;56     2560: g4,c2,g6; g2,c3; =; 7
2413: f4,e1,g7; h4,c4; =;15     2487: e2,c2,g8; g2,c4; =;56     2561: g4,c2,d5; g2,c3; =; 7
2414: f4,e1,f6; h4,c4; =;17     2488: e2,c2,d7; g2,c4; =;56     2562: g4,c2,d1; g2,c3; =;13
2415: f4,e1,g3; h4,c4; =;15     2489: e2,c2,h7; g2,c4; =;56     2563: g4,b6,c2; h2,c3; =;10
2416: f4,b6,c2; h3,c4; =;52     2490: e2,c2,g4; g2,c4; =;56     2564: e3,c2,f6; g3,c3; =;18
2417: f4,b4,e6; h3,c4; =;18     2491: e2,a1,f6; g2,c4; =;23     2565: e3,c2,d5; g2,c3; =;19
2418: f4,b4,h5; h3,c4; =;18     2492: f2,a3,f6; h2,c4; =;21     2566: f3,c2,f6; h3,c3; =;17
2419: f4,b4,f1; h3,c4; =;18     2493: f2,c2,e8; h2,c4; =;55     2567: f3,c2,g2; h3,c3; =; 7
2420: f4,b4,h1; h3,c4; =;18     2494: f2,c2,g8; h2,c4; =;55     2568: g3,b3,h2; h1,c3; =; 3
2421: f4,d4,e6; h3,c4; =;18     2495: f2,c2,d7; h2,c4; =;55     2569: g3,a2,h2; h1,c3; =; 3
2422: f4,d4,h5; h3,c4; =;18     2496: f2,a1,f6; h2,c4; =;21     2570: g3,c1,d5; h1,c3; =; 3
2423: f4,d4,f1; h3,c4; =;18     2497: h2,c3,g2; f2,c4; =;56     2571: g3,c1,c4; h1,c3; =; 3
```

2572: g3,c1,g2; h1,c3; =; 3
2573: e2,c2,f6; g2,c3; =;19
2574: f2,c2,f6; h2,c3; =;18
2575: e1,c2,f6; g1,c3; =;20
2576: f1,c2,f6; h1,c3; =;19
2577: b4,b3,c1; b1,c2; =; 8
2578: g3,c1,e3; h1,c2; =; 2
2579: g3,c1,d2; h1,c2; =; 2
2580: g3,c1,h2; h1,c2; =; 2
2581: a8,b8,c1; b6,d7; =;84
2582: a8,b8,e1; b6,d7; =;87
2583: a8,b2,b8; b6,d7; =;88
2584: d8,a7,g3; d6,d7; =;90
2585: c7,a6,b8; d5,d7; =;84
2586: e7,a8,d6; c6,d7; =;32
2587: e7,a6,b8; d5,d7; =;85
2588: d6,b7,d8; c8,d7; =;28
2589: d6,b6,c8; b7,d7; =;28
2590: d6,e8,f6; f7,d7; =;34
2591: d6,f8,g6; f7,d7; =;39
2592: d6,e7,g8; g7,d7; =;36
2593: d6,b8,d8; b6,d7; =;44
2594: d6,a5,b7; b6,d7; =;43
2595: d6,d8,f8; f6,d7; =;43
2596: d6,f7,g5; f6,d7; =;66
2597: d6,b8,f7; b5,d7; =;48
2598: d6,a6,b4; b5,d7; =;84
2599: d6,a2,b8; b5,d7; =;49
2600: d6,f4,g6; f5,d7; =;85
2601: d6,f4,h5; g5,d7; =;84
2602: d6,b5,c3; c4,d7; =;81
2603: d6,c4,e3; d4,d7; =;47
2604: d6,c3,e4; d4,d7; =;47
2605: d6,e3,f5; e4,d7; =;81
2606: d6,f5,h4; g4,d7; =;50
2607: d6,a1,e1; c3,d7; =;44
2608: d6,g1,h1; e3,d7; =;43
2609: d6,f2,g4; f3,d7; =;84
2610: f6,a6,b8; d6,d7; =;86
2611: c5,d8,f8; g5,d7; =;49
2612: d5,b8,d8; b5,d7; =;48
2613: d5,d8,f8; f5,d7; =;48
2614: e5,a8,d6; c6,d7; =;26
2615: e5,b8,d8; a5,d7; =;49
2616: e5,h1,h5; f3,d7; =;85
2617: d4,a2,b8; b5,d7; =;70
2618: b3,b8,c4; b5,d7; =;74
2619: b3,a6,b8; d4,d7; =;73
2620: f3,e4,f8; f5,d7; =;74
2621: f3,g4,h7; f5,d7; =;73
2622: f3,f8,g4; g5,d7; =;74
2623: g8,f7,h6; e7,d6; =;96
2624: a7,b7,b8; c7,d6; =;79
2625: a7,a6,f7; a5,d6; =;85
2626: b7,a6,f7; b5,d6; =;84
2627: d7,b8,c6; d5,d6; =;84
2628: d7,a6,c6; c4,d6; =;83
2629: f7,b1,f1; h8,d6; =;35
2630: f7,b7,g6; f5,d6; =;84
2631: g7,b7,g6; g5,d6; =;85
2632: c6,f7,g5; e7,d6; =;80
2633: c6,a6,c7; a5,d6; =;82
2634: c6,b7,h5; e5,d6; =;81
2635: c6,a4,b2; b4,d6; =;82
2636: c6,a6,f7; c4,d6; =;83
2637: c6,b5,f7; c4,d6; =;48
2638: c6,b7,d7; d4,d6; =;80
2639: c6,b7,g4; d4,d6; =;80
2640: c6,d7,f7; d4,d6; =;80
2641: c6,f7,g4; d4,d6; =;82
2642: c6,a4,b7; d4,d6; =;81
2643: c6,e4,f2; d4,d6; =;81
2644: c6,b7,h6; e4,d6; =;81
2645: e6,b8,c6; c5,d6; =;82

2646: e6,e7,g6; g5,d6; =;83
2647: e6,b7,d7; d4,d6; =;81
2648: e6,d7,f7; d4,d6; =;81
2649: e6,f7,g4; d4,d6; =;82
2650: e6,a4,b7; d4,d6; =;82
2651: e6,b2,c4; d4,d6; =;81
2652: e6,b7,g6; e4,d6; =;83
2653: e6,b7,f5; e4,d6; =;48
2654: f6,e6,f7; e4,d6; =;83
2655: g6,a8,b1; h8,d6; =;32
2656: g6,a8,f1; h8,d6; =;34
2657: g6,b7,h5; g4,d6; =;83
2658: h6,d7,h5; f5,d6; =;85
2659: b5,c7,e6; e5,d6; =;82
2660: b5,a6,f7; d4,d6; =;82
2661: b5,a4,d7; b3,d6; =;81
2662: b5,a4,f7; b3,d6; =;80
2663: b5,c4,e1; c3,d6; =;78
2664: d5,d7,f8; e8,d6; =;84
2665: d5,a7,c8; b7,d6; =;43
2666: d5,a6,b8; b7,d6; =;47
2667: d5,b6,d7; c7,d6; =;40
2668: d5,d7,f6; e7,d6; =;41
2669: d5,b5,c7; b6,d6; =;38
2670: d5,e7,f5; f6,d6; =;38
2671: d5,f7,g5; f6,d6; =;57
2672: d5,a6,b4; b5,d6; =;83
2673: d5,f4,g6; f5,d6; =;84
2674: d5,f5,h6; g5,d6; =;81
2675: d5,f5,h4; g4,d6; =;49
2676: d5,a4,b2; b3,d6; =;81
2677: d5,b3,d2; c3,d6; =;80
2678: d5,a1,e1; c3,d6; =;47
2679: d5,c3,e2; d3,d6; =;78
2680: d5,c2,e3; d3,d6; =;79
2681: d5,d2,f3; e3,d6; =;80
2682: d5,g1,h1; e3,d6; =;48
2683: d5,f2,g4; f3,d6; =;82
2684: d5,h1,h5; f3,d6; =;49
2685: f5,a7,f7; c5,d6; =;84
2686: f5,c6,e7; c5,d6; =;82
2687: f5,b7,g6; d4,d6; =;82
2688: f5,c1,e4; e3,d6; =;79
2689: f5,b7,g4; f3,d6; =;81
2690: f5,d7,g4; f3,d6; =;81
2691: h5,b7,g6; f5,d6; =;82
2692: a4,b5,b8; c5,d6; =;79
2693: a4,e6,e8; c4,d6; =;76
2694: a4,b5,d7; c4,d6; =;78
2695: a4,b5,g6; c4,d6; =;78
2696: b4,a5,b7; b6,d6; =;66
2697: b4,b3,f7; d3,d6; =;78
2698: d4,a4,a8; c6,d6; =;73
2699: e4,a1,d3; c3,d6; =;72
2700: f4,c8,f7; c5,d6; =;81
2701: f4,b7,f3; d3,d6; =;79
2702: g4,a6,f5; e4,d6; =;78
2703: g4,c6,c8; e4,d6; =;76
2704: b3,c8,e6; d3,d6; =;73
2705: b3,b7,d7; d3,d6; =;78
2706: b3,e6,e8; d3,d6; =;73
2707: b3,b5,b7; d3,d6; =;73
2708: b3,b5,d7; d3,d6; =;73
2709: b3,a3,d8; d3,d6; =;75
2710: b3,a3,f8; d3,d6; =;75
2711: b3,a3,g7; d3,d6; =;77
2712: b3,b1,e6; d3,d6; =;75
2713: c3,f7,g6; e4,d6; =;80
2714: e3,a6,c8; c4,d6; =;81
2715: f3,b8,g3; d3,d6; =;75
2716: f3,d8,g3; d3,d6; =;75
2717: f3,a7,g3; d3,d6; =;77
2718: f3,d7,f7; d3,d6; =;78
2719: f3,d7,f5; d3,d6; =;73

2720: f3,c6,c8; d3,d6; =;74
2721: f3,c6,e8; d3,d6; =;74
2722: f3,c6,f1; d3,d6; =;75
2723: f3,f5,f7; d3,d6; =;73
2724: b2,a8,b3; d3,d6; =;76
2725: b2,b3,c8; d3,d6; =;76
2726: b2,b3,e8; d3,d6; =;76
2727: b2,a2,e8; d3,d6; =;76
2728: b2,a8,c1; d2,d6; =;75
2729: b2,c1,c8; d2,d6; =;75
2730: b2,c1,e8; d2,d6; =;75
2731: e2,a1,d3; c3,d6; =;72
2732: f2,c8,f3; d3,d6; =;77
2733: f2,e8,f3; d3,d6; =;77
2734: f2,f3,g8; d3,d6; =;77
2735: f2,c8,e1; d2,d6; =;76
2736: f2,e1,e8; d2,d6; =;76
2737: f2,e1,g8; d2,d6; =;76
2738: b1,a2,f7; b3,d6; =;73
2739: b1,c1,f7; c3,d6; =;74
2740: b1,d7,f2; d2,d6; =;78
2741: c1,b2,g8; c3,d6; =;74
2742: c1,a4,g8; d3,d6; =;75
2743: c1,d1,g8; d3,d6; =;75
2744: e1,a8,g4; d3,d6; =;75
2745: e1,a8,h3; d3,d6; =;75
2746: e1,a8,d1; d3,d6; =;75
2747: e1,a8,h1; d3,d6; =;75
2748: e1,g4,h7; d3,d6; =;75
2749: e1,h3,h7; d3,d6; =;75
2750: e1,d1,h7; d3,d6; =;75
2751: e1,h1,h7; d3,d6; =;75
2752: e1,a8,f2; e3,d6; =;74
2753: e1,f2,h7; e3,d6; =;74
2754: f1,b7,e1; e3,d6; =;75
2755: f1,b7,g2; f3,d6; =;73
2756: g1,b7,h2; g3,d6; =;74
2757: d7,a3,d2; b8,d5; =;46
2758: d7,d2,h8; b8,d5; =;49
2759: d7,d2,h6; b8,d5; =;49
2760: d7,d2,e3; b8,d5; =;46
2761: d7,d2,g3; b8,d5; =;82
2762: f7,e3,f1; h8,d5; =; 5
2763: f7,d2,f1; h8,d5; =;47
2764: f7,a1,g8; h8,d5; =; 5
2765: f7,b1,e3; h8,d5; =; 5
2766: f7,b1,g3; h8,d5; =; 6
2767: f7,b1,h2; h8,d5; =; 5
2768: f7,f1,g3; h8,d5; =; 6
2769: f7,f1,h2; h8,d5; =; 5
2770: b6,d2,h7; b8,d5; =;66
2771: b6,a5,d2; c8,d5; =;65
2772: b6,d2,h6; c8,d5; =;67
2773: c6,c7,f1; c8,d5; =;37
2774: c6,a5,b1; c8,d5; =;66
2775: c6,a5,f1; c8,d5; =;66
2776: c6,b1,f8; c8,d5; =;37
2777: c6,b1,h8; c8,d5; =;66
2778: c6,b1,c7; c8,d5; =;37
2779: c6,b1,g7; c8,d5; =;37
2780: c6,b1,h6; c8,d5; =;66
2781: c6,b1,g5; c8,d5; =;37
2782: c6,f1,f8; c8,d5; =;37
2783: c6,f1,h8; c8,d5; =;66
2784: c6,f1,g7; c8,d5; =;37
2785: c6,f1,h6; c8,d5; =;66
2786: c6,f1,g5; c8,d5; =;37
2787: c6,d2,h8; a7,d5; =;80
2788: c6,d2,h6; a7,d5; =;80
2789: c6,d2,g3; a7,d5; =;30
2790: g6,a8,d2; h8,d5; =;44
2791: g6,b8,f1; h8,d5; =; 5
2792: g6,c7,f1; h8,d5; =; 6
2793: g6,b6,f1; h8,d5; =; 5

731

```
2794: g6,a1,h7; h8,d5; =; 5      2868: f3,a1,h8; h2,d5; =;24      2942: c6,d2,h6; a8,d4; =;66
2795: g6,b1,b8; h8,d5; =; 5      2869: b2,b6,c1; d2,d5; =;74      2943: c6,b7,f3; c8,d4; =;17
2796: g6,b1,c7; h8,d5; =; 7      2870: b2,c1,d6; d2,d5; =;74      2944: c6,b7,f1; c8,d4; =;17
2797: g6,b1,b6; h8,d5; =; 5      2871: f2,d6,e1; d2,d5; =;75      2945: c6,e6,f3; c8,d4; =;19
2798: a5,b1,f8; a7,d5; =;46      2872: f2,e1,f6; d2,d5; =;75      2946: c6,e6,f1; c8,d4; =;19
2799: a5,f1,f8; a7,d5; =;46      2873: c1,b2,e7; c3,d5; =;73      2947: c6,b3,b7; c8,d4; =;17
2800: c5,b4,f6; c3,d5; =;79      2874: c1,b2,b6; c3,d5; =;73      2948: c6,b3,f7; c8,d4; =;17
2801: c5,e1,f6; c3,d5; =;77      2875: c1,b2,f6; c3,d5; =;73      2949: c6,b3,e6; c8,d4; =;19
2802: c5,e1,g5; c3,d5; =;77      2876: e1,c7,f2; e3,d5; =;73      2950: c6,f3,f7; c8,d4; =;17
2803: c5,e1,g3; c3,d5; =;78      2877: e1,b6,f2; e3,d5; =;73      2951: c6,b1,b7; c8,d4; =;17
2804: e5,b6,f4; e3,d5; =;79      2878: e1,f2,f6; e3,d5; =;73      2952: c6,b1,f7; c8,d4; =;17
2805: e5,b6,c1; e3,d5; =;77      2879: c8,c4,f1; a8,d4; =;17      2953: c6,b1,e6; c8,d4; =;19
2806: e5,a5,c1; e3,d5; =;78      2880: c8,c2,d2; a8,d4; =;40      2954: c6,f1,f7; c8,d4; =;17
2807: e5,a3,c1; e3,d5; =;78      2881: c8,d2,d5; a8,d4; =;40      2955: c6,c4,d2; a7,d4; =;16
2808: f5,a7,e5; c5,d5; =;80      2882: c8,b1,c4; a8,d4; =;17      2956: c6,d2,f7; a7,d4; =;18
2809: d4,a8,b6; d8,d5; =;73      2883: d8,c4,f3; b8,d4; =;19      2957: c6,c4,f3; a6,d4; =;15
2810: d4,a4,b6; c7,d5; =;77      2884: d8,c4,f1; b8,d4; =;19      2958: c6,c4,f1; a6,d4; =;15
2811: d4,a5,b3; b6,d5; =;76      2885: d8,b1,c4; b8,d4; =;19      2959: c6,b1,c4; a6,d4; =;15
2812: d4,a8,c5; c6,d5; =;72      2886: c7,a4,e2; a8,d4; =; 6      2960: g6,b8,d2; h8,d4; =; 4
2813: d4,b5,d6; c6,d5; =;72      2887: c7,a4,d1; a8,d4; =; 6      2961: g6,c7,d2; h8,d4; =; 5
2814: d4,g8,h8; e6,d5; =;77      2888: c7,d1,d5; a8,d4; =; 4      2962: g6,d7,f1; h8,d4; =; 4
2815: d4,d6,f5; e6,d5; =;73      2889: c7,b8,f1; a7,d4; =; 5      2963: g6,b6,d2; h8,d4; =; 4
2816: d4,d8,h8; f6,d5; =;74      2890: c7,c4,f3; a7,d4; =;16      2964: g6,e6,f1; h8,d4; =; 5
2817: d4,d6,h8; f6,d5; =;75      2891: c7,c4,f1; a7,d4; =;16      2965: g6,b3,d7; h8,d4; =; 4
2818: d4,f4,h8; f6,d5; =;74      2892: c7,c2,d2; a7,d4; =;39      2966: g6,b3,h7; h8,d4; =; 4
2819: d4,h4,h8; f6,d5; =;77      2893: c7,d2,d5; a7,d4; =;39      2967: g6,b3,e6; h8,d4; =; 5
2820: d4,b4,c6; b5,d5; =;68      2894: c7,b1,c4; a7,d4; =;16      2968: g6,b1,d7; h8,d4; =; 4
2821: d4,h7,h8; f5,d5; =;79      2895: d7,c4,d2; b8,d4; =;19      2969: g6,b1,h7; h8,d4; =; 4
2822: d4,e6,f4; f5,d5; =;69      2896: d7,d2,f7; b8,d4; =;40      2970: g6,b1,e6; h8,d4; =; 5
2823: d4,f6,h5; g5,d5; =;79      2897: d7,c4,f3; b7,d4; =;18      2971: g6,f1,h7; h8,d4; =; 4
2824: d4,b4,c2; b3,d5; =;76      2898: d7,c4,f1; b7,d4; =;18      2972: a5,e6,f3; a7,d4; =;22
2825: d4,e2,f4; f3,d5; =;76      2899: d7,b1,c4; b7,d4; =;18      2973: a5,e6,f1; a7,d4; =;22
2826: d4,h1,h5; f3,d5; =;84      2900: f7,b3,g8; h8,d4; =; 4      2974: a5,c4,e6; a7,d4; =;22
2827: d4,f4,h3; g3,d5; =;80      2901: f7,b3,f5; h8,d4; =; 5      2975: a5,e4,e6; a7,d4; =;22
2828: d4,a3,b5; b2,d5; =;81      2902: f7,b3,g4; h8,d4; =; 5      2976: a5,b3,e6; a7,d4; =;22
2829: d4,b3,d2; c2,d5; =;78      2903: f7,d2,g3; h8,d4; =; 5      2977: a5,d2,d8; a7,d4; =;67
2830: d4,d2,f3; e2,d5; =;78      2904: f7,d2,h2; h8,d4; =; 4      2978: a5,b1,e6; a7,d4; =;22
2831: f4,c8,e5; c5,d5; =;77      2905: f7,b1,g8; h8,d4; =; 4      2979: c4,d1,d5; a3,d4; =;73
2832: f4,e8,f1; h4,d5; =;81      2906: f7,b1,f5; h8,d4; =; 5      2980: e4,a1,d3; c3,d4; =;76
2833: f4,b6,f6; h4,d5; =;79      2907: f7,b1,g4; h8,d4; =; 4      2981: f4,c4,f6; h4,d4; =;16
2834: f4,a5,f6; h4,d5; =;26      2908: f7,f1,g8; h8,d4; =; 4      2982: f4,c4,g3; h4,d4; =;16
2835: f4,a3,f6; h4,d5; =;75      2909: f7,f1,f5; h8,d4; =; 5      2983: f4,e4,g7; h4,d4; =;14
2836: f4,c3,f6; h4,d5; =;80      2910: f7,f1,g4; h8,d4; =; 4      2984: f4,e4,f6; h4,d4; =;16
2837: f4,a1,f6; h4,d5; =;26      2911: a6,e6,f1; a8,d4; =;21      2985: f4,e4,g3; h4,d4; =;14
2838: f4,b1,e8; h4,d5; =;81      2912: a6,d2,h8; a8,d4; =;66      2986: f4,b3,f6; h4,d4; =;16
2839: f4,b1,g8; h4,d5; =;81      2913: a6,d2,g7; a8,d4; =;66      2987: f4,b3,g3; h4,d4; =;16
2840: f4,b1,h7; h4,d5; =;80      2914: a6,d2,h6; a8,d4; =;66      2988: f4,b1,f6; h4,d4; =;16
2841: f4,f1,g8; h4,d5; =;81      2915: a6,d2,g5; a8,d4; =;66      2989: f4,b1,g3; h4,d4; =;16
2842: f4,f1,h7; h4,d5; =;81      2916: a6,b1,e6; a8,d4; =;21      2990: f4,f1,f6; h4,d4; =;16
2843: f4,f5,h4; h3,d5; =;80      2917: b6,a6,d1; a8,d4; =; 2      2991: f4,f1,g3; h4,d4; =;16
2844: f4,f3,h4; h3,d5; =;80      2918: b6,d2,h7; a8,d4; =;66      2992: f4,f3,f5; h3,d4; =;79
2845: f4,b1,d2; h3,d5; =;79      2919: b6,e2,e8; a8,d4; =; 6      2993: f4,d2,g3; h3,d4; =;15
2846: b3,d6,e6; d3,d5; =;72      2920: b6,a7,e2; a8,d4; =; 3      2994: b3,c4,e6; d3,d4; =;71
2847: b3,a3,e6; d3,d5; =;74      2921: b6,a7,b1; b8,d4; =;15      2995: b3,c4,h3; d3,d4; =;71
2848: b3,a7,g3; a1,d5; =; 7      2922: b6,a7,f1; b8,d4; =;15      2996: b3,c7,e2; a1,d4; =;10
2849: b3,a7,g1; a1,d5; =; 7      2923: b6,c7,d2; b8,d4; =;65      2997: b3,b6,e2; a1,d4; =; 8
2850: b3,c7,g3; a1,d5; =; 7      2924: b6,e7,f1; b8,d4; =;15      2998: b3,d6,e2; a1,d4; =; 8
2851: b3,c7,g1; a1,d5; =; 7      2925: b6,d6,e2; b8,d4; =; 5      2999: b3,a5,e2; a1,d4; =; 8
2852: b3,e7,g3; a1,d5; =; 7      2926: b6,e6,f3; b8,d4; =;20      3000: b3,b5,g3; a1,d4; =; 6
2853: b3,e7,g1; a1,d5; =; 7      2927: b6,e6,f1; b8,d4; =;20      3001: b3,b5,g1; a1,d4; =; 6
2854: b3,b6,g3; a1,d5; =; 9      2928: b6,a5,d2; b8,d4; =;65      3002: b3,d5,g1; a1,d4; =; 6
2855: b3,b6,g1; a1,d5; =; 9      2929: b6,b3,e6; b8,d4; =;20      3003: b3,a4,g3; a1,d4; =; 8
2856: b3,d6,g3; a1,d5; =; 7      2930: b6,d2,d8; b8,d4; =;65      3004: b3,a4,g1; a1,d4; =; 8
2857: b3,d6,g1; a1,d5; =; 7      2931: b6,d2,f8; b8,d4; =;65      3005: b3,e4,g3; a1,d4; =; 8
2858: b3,f6,g3; a1,d5; =; 9      2932: b6,d2,h8; b8,d4; =;65      3006: b3,e4,g1; a1,d4; =; 8
2859: b3,f6,g1; a1,d5; =; 9      2933: b6,d2,g7; b8,d4; =;65      3007: b3,a3,a6; a1,d4; =; 2
2860: b3,g3,g5; a1,d5; =; 9      2934: b6,d2,h6; b8,d4; =;65      3008: b3,a3,c6; a1,d4; =; 2
2861: b3,g1,g5; a1,d5; =; 9      2935: b6,d2,g5; b8,d4; =;65      3009: b3,a3,e6; a1,d4; =; 2
2862: b3,g1,g3; a1,d5; =; 9      2936: b6,e2,e7; b8,d4; =; 3      3010: b3,a3,f5; a1,d4; =; 2
2863: e3,a1,d3; c3,d5; =;71      2937: b6,b1,e7; b8,d4; =;15      3011: b3,a3,f3; a1,d4; =; 2
2864: f3,c6,d6; d3,d5; =;73      2938: b6,b1,e6; b8,d4; =;20      3012: b3,a3,e2; a1,d4; =; 2
2865: f3,c6,g3; d3,d5; =;74      2939: b6,b7,d2; c8,d4; =;64      3013: b3,a3,g2; a1,d4; =; 2
2866: f3,a5,h8; h2,d5; =;24      2940: b6,d2,f7; c8,d4; =;64      3014: b3,a3,b1; a1,d4; =; 2
2867: f3,c3,h8; h2,d5; =;24      2941: c6,d2,h8; a8,d4; =;66      3015: b3,a3,f1; a1,d4; =; 2
```

732

3016: b3,e2,e7; a1,d4; =;10
3017: b3,e2,f6; a1,d4; =; 8
3018: b3,e2,g5; a1,d4; =; 8
3019: b3,e2,g3; a1,d4; =; 8
3020: b3,d1,g3; a1,d4; =; 8
3021: b3,d1,g1; a1,d4; =; 8
3022: b3,b5,e2; b1,d4; =; 3
3023: b3,d5,e2; b1,d4; =; 5
3024: b3,a4,e2; b1,d4; =; 7
3025: b3,c4,e2; b1,d4; =; 3
3026: b3,c2,e2; b1,d4; =; 3
3027: b3,e2,e4; b1,d4; =; 7
3028: b3,d1,e2; b1,d4; =; 7
3029: f3,c6,e4; d3,d4; =;72
3030: f3,c4,f6; h3,d4; =;17
3031: f3,b3,f6; h3,d4; =;17
3032: f3,b1,f6; h3,d4; =;17
3033: f3,f1,f6; h3,d4; =;17
3034: f3,c4,h8; h2,d4; =; 9
3035: f3,e4,h8; h2,d4; =; 9
3036: f3,b3,h8; h2,d4; =; 9
3037: f3,b1,h8; h2,d4; =; 9
3038: g3,b5,h2; g1,d4; =; 3
3039: g3,a4,h2; g1,d4; =; 3
3040: g3,a2,h2; g1,d4; =; 3
3041: d2,f5,h3; f1,d4; =;70
3042: d2,d1,h3; f1,d4; =;70
3043: e2,a1,d3; c3,d4; =;69
3044: e2,d2,f5; g2,d4; =;15
3045: e2,d2,e4; g2,d4; =;67
3046: f2,b5,g5; h2,d4; =; 3
3047: f2,c4,f6; h2,d4; =;18
3048: f2,b3,f6; h2,d4; =;18
3049: f2,b1,f6; h2,d4; =;18
3050: f2,d1,g1; h2,d4; =; 3
3051: f1,c4,f6; h1,d4; =;19
3052: f1,b3,f6; h1,d4; =;19
3053: f1,b1,f6; h1,d4; =;19
3054: c8,b8,d2; a8,d3; =; 5
3055: c8,b4,d2; a8,d3; =; 5
3056: c8,c4,d2; a8,d3; =;16
3057: d8,c4,d2; b8,d3; =;18
3058: c7,a3,d2; a8,d3; =;16
3059: c7,b8,d2; a7,d3; =; 4
3060: c7,b4,d2; a7,d3; =; 4
3061: c7,c4,d2; a7,d3; =;15
3062: d7,c4,d2; b7,d3; =;17
3063: f7,d2,g8; h8,d3; =; 3
3064: f7,d2,f5; h8,d3; =; 3
3065: f7,d2,g4; h8,d3; =; 3
3066: a6,a7,d2; a8,d3; =;15
3067: a6,d2,e7; a8,d3; =;15
3068: a6,d2,e6; a8,d3; =;20
3069: b6,a7,d2; b8,d3; =;14
3070: b6,d2,e7; b8,d3; =;14
3071: b6,d2,e6; b8,d3; =;19
3072: c6,b7,d2; c8,d3; =;16
3073: c6,d2,f7; c8,d3; =;16
3074: c6,d2,e6; c8,d3; =;18
3075: c6,b7,d2; a6,d3; =; 9
3076: c6,c4,d2; a6,d3; =;14
3077: c6,b3,d2; a6,d3; =; 9
3078: g6,d2,d7; h8,d3; =; 3
3079: g6,d2,h7; h8,d3; =; 3
3080: g6,d2,e6; h8,d3; =; 3
3081: a5,d2,e6; a7,d3; =;21
3082: b5,d2,e6; b7,d3; =;20
3083: g5,d2,g4; g3,d3; =;11
3084: g5,d1,d2; g3,d3; =;11
3085: g5,d2,e3; h3,d3; =;12
3086: h5,d2,g4; h3,d3; =;12
3087: h5,d1,d2; h3,d3; =;12
3088: c4,c3,d1; a3,d3; =;13
3089: f4,d2,g7; h4,d3; =;12

3090: f4,d2,f6; h4,d3; =;11
3091: f4,d2,g3; h4,d3; =;12
3092: h4,d2,g4; g2,d3; =; 4
3093: h4,d2,h6; h2,d3; =; 5
3094: h4,d2,e5; h2,d3; =; 5
3095: b3,a3,b4; a1,d3; =; 1
3096: b3,a3,d4; a1,d3; =; 1
3097: b3,a3,e1; a1,d3; =; 1
3098: b3,a2,e5; b1,d3; =; 6
3099: b3,a2,e1; b1,d3; =; 2
3100: b3,a2,g1; b1,d3; =; 6
3101: c3,b2,b4; a3,d3; =;10
3102: e3,d2,f6; g3,d3; =;14
3103: e3,d2,f5; g2,d3; =; 9
3104: f3,d2,f6; h3,d3; =;12
3105: f3,d2,g6; h3,d3; =; 5
3106: f3,d2,g2; h3,d3; =; 5
3107: f3,d2,h8; h2,d3; =; 6
3108: g3,c3,e3; g1,d3; =; 4
3109: g3,c3,h2; g1,d3; =; 2
3110: g3,c1,e3; g1,d3; =; 4
3111: g3,c1,h2; g1,d3; =; 2
3112: h3,f3,g1; h1,d3; =; 1
3113: f2,d2,f6; h2,d3; =;13
3114: e1,d2,f4; g1,d3; =; 5
3115: f1,d2,f6; h1,d3; =;14
3116: a6,a5,d1; a4,d2; =;14
3117: a6,d1,e3; a4,d2; =;14
3118: b6,d1,g4; a4,d2; =;14
3119: b6,a5,d1; b4,d2; =;13
3120: b6,b2,d1; b4,d2; =;11
3121: b6,d1,e3; b4,d2; =;13
3122: c4,b7,d1; a4,d2; =;11
3123: c4,c6,d1; a4,d2; =;13
3124: c4,b3,d1; a4,d2; =;11
3125: c4,d1,e7; a3,d2; =;14
3126: c4,c3,d1; c1,d2; =;15
3127: d3,c6,d1; b3,d2; =;15
3128: c2,c6,d1; a2,d2; =;15
3129: c2,b5,d1; a2,d2; =;11
3130: c2,b1,d1; a2,d2; =;11

- - - - - - - - - - - - - - - - - - - -

Mr. Beasley wrote us the following:

"As the new study columnist of *diagrammes*, I am delighted to see our award reprinted in *EG*, but

**EG 116.9929** (Bacqué after Lavaud) *EG* writes: "How far Marc Lavaud was consulted is unclear." In fact I wrote to Marc Lavaud before the award was published, and he told me that he had no objection to Guy Bacqué's version.

**EG 117.9930** (Lewandowski) The demolition was reported by Guy Bacqué, not by the judge. The judge, and doubtless the composer, initially relied on the statement in Kasparian's *Domination in 2545 endgame studies* (English edition, page 385, two rooks and minor piece against queen): "As a rule, a draw is considered the outcome." Bacqué challenged this, at least in respect of the present position, and we eventually decided that he was right.

**EG 117 Kutná Hora 60 (9948 - 9955)** *EG* is wrong to talk about a provisional award; "jejíž definitivní výsledek přinašíme" means "whose definitive results we present". The judge reported that 32 studies entered showed a lot of new and interesting ideas but that unfortunately they were

hard hit by unsoundness, altough enough remained to honour the aniiversary in good style. He commented on the honoured studies as follows:

**9948** (1Pr. Matouš) "A very demanding study in which precise play by both sides eventually leads to a win for White. The succession of tries must please the solver, as must the various ideas behind the White promotions. The best study of the tourney."

**9949** (2Pr. Husák and Vlasák) "Only the first move spoils this very attractive joint composition. White must avoid a positional draw, and only precise play leads to success. Very economically constructed."

**9950** (3Pr. Matouš) "The play resolves into a quite incredible and most unexpected cavalry ride, which eventually leads to success. An original and most interesting study, realized in masterly style."

**9951** (1HM. Slepyan) "The heart of this study lies in two echoed stalemates which are invisible in the original position. The order of moves in the two variations is forced. Extremely original."

**9952** (2HM. Hlinka) "After a forcing first move, there is a long and interesting battle between the White queen and the Black army. The queen exerts her power by precise moves in an open position. Very demanding to solve."

**9953** (1Com. Topko) "The realization of familiar ideas in miniature is always pleasing."

**9954** (2Com. Krejčí) "Both sides display interesting although forcing play, ending in a Black promotion either to immediate stalemate or to a positional draw. The try is also interesting."

**9955** (3Com. Kos) "A familiar theme ending in two mates, though Black must help a little."

**Large private collections of studies**
Kasparyan's collection holds some 30,000. Harold van der Heijden's currently has over 40,000 (on computer disk), and it is still growing. According to *Šachova skladba* No.46 the card collection of 86-year old František Macek of Prague totals 45,000. If we knew the precise number of studies in the all-genre collection of the late J.P.Toft of Denmark, we would be able to draw up a preliminary world ranking list! A curiosity of Macek's collection is the number of Rinck's studies in it, reported as 1564, which exceeds by over 400 the number in the Frenchman's own final volume assembling his life's work in the field.

======================================