

This is the output of the program II_findAllResonances_ord6.java, which gives the list of semigroups of order 6 with resonant decompositions. The number of semigroups with at least one resonance and the total number of different resonances is given at the end of the file.

The semigroup #1

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

has #180 resonances.

Resonance #1

S0: 1 6
S1: 1 2 3 4 5

Resonance #2

S0: 1 5
S1: 1 2 3 4 6

Resonance #3

S0: 1 4
S1: 1 2 3 5 6

Resonance #4

S0: 1 3
S1: 1 2 4 5 6

Resonance #5

S0: 1 2
S1: 1 3 4 5 6

Resonance #6

S0: 1 5 6
S1: 1 2 3 4

Resonance #7

S0: 1 4 6
S1: 1 2 3 5

Resonance #8

S0: 1 3 6
S1: 1 2 4 5

Resonance #9

S0: 1 2 6
S1: 1 3 4 5

Resonance #10

S0: 1 4 5
S1: 1 2 3 6

Resonance #11

S0: 1 3 5
S1: 1 2 4 6

Resonance #12

S0: 1 2 5
S1: 1 3 4 6

Resonance #13

S0: 1 3 4
S1: 1 2 5 6

Resonance #14

S0: 1 2 4
S1: 1 3 5 6

Resonance #15

S0: 1 2 3

S1: 1 4 5 6
Resonance #16
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 3 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #25
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #26
S0: 1 3 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #29
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #30
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #31
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #33
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #34
S0: 1 2 3

S1: 1 3 4 5 6
Resonance #35
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #36
S0: 1 4 5 6
S1: 1 2 3
Resonance #37
S0: 1 3 5 6
S1: 1 2 4
Resonance #38
S0: 1 2 5 6
S1: 1 3 4
Resonance #39
S0: 1 3 4 6
S1: 1 2 5
Resonance #40
S0: 1 2 4 6
S1: 1 3 5
Resonance #41
S0: 1 2 3 6
S1: 1 4 5
Resonance #42
S0: 1 3 4 5
S1: 1 2 6
Resonance #43
S0: 1 2 4 5
S1: 1 3 6
Resonance #44
S0: 1 2 3 5
S1: 1 4 6
Resonance #45
S0: 1 2 3 4
S1: 1 5 6
Resonance #46
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #47
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #48
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #49
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #50
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #51
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #52
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #53
S0: 1 2 5 6

S1: 1 3 4 5
Resonance #54
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #55
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #56
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #57
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #58
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #59
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #60
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #61
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #62
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #63
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #64
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #65
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #66
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #67
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #68
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #69
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #70
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #71
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #72
S0: 1 2 3 5

S1: 1 2 4 6
Resonance #73
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #74
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #75
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #76
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #77
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #78
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #79
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #80
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #81
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #82
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #83
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #84
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #85
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #86
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #87
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #88
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #89
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #90
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #91
S0: 1 2 3 6

S1: 1 3 4 5 6
Resonance #92
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #93
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #94
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #95
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #96
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #97
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #98
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #99
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #100
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #101
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #102
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #103
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #104
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #105
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #106
S0: 1 3 4 5 6
S1: 1 2
Resonance #107
S0: 1 2 4 5 6
S1: 1 3
Resonance #108
S0: 1 2 3 5 6
S1: 1 4
Resonance #109
S0: 1 2 3 4 6
S1: 1 5
Resonance #110
S0: 1 2 3 4 5

S1: 1 6
Resonance #111
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #112
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #113
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #114
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #115
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #116
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #117
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #118
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #119
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #120
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #121
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #122
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #123
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #124
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #125
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #126
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #127
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #128
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #129
S0: 1 2 3 4 5

S1: 1 3 6
Resonance #130
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #131
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #132
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #133
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #134
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #135
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #136
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #137
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #138
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #139
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #140
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #141
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #142
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #143
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #144
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #145
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #146
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #147
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #148
S0: 1 2 3 5 6

S1: 1 2 3 4
Resonance #149
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #150
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #151
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #152
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #153
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #154
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #155
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #156
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #157
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #158
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #159
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #160
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #161
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #162
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #163
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #164
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #165
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #166
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #167
S0: 1 2 4 5 6

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S1: 1 2 3 4 6
Resonance #168
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #169
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #170
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #171
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #172
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #173
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #174
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #175
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #176
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #177
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #178
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #179
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #180
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
has #96 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5

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S1: 1 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 4 5 6
Resonance #6
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 6
S1: 1 3 5
Resonance #15
S0: 1 2 3 6
S1: 1 4 5
Resonance #16
S0: 1 2 4 5
S1: 1 3 6
Resonance #17
S0: 1 2 3 5
S1: 1 4 6
Resonance #18
S0: 1 2 3 4
S1: 1 5 6
Resonance #19
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #22
S0: 1 2 4 6

S1: 1 2 3 5
Resonance #23
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #24
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #25
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #26
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #27
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #28
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #29
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #30
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #31
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #32
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #33
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #34
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #35
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #36
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #37
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #39
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #40
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #41
S0: 1 2 4 5

S1: 1 2 3 5 6
Resonance #42
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #43
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #44
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #45
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #46
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #47
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #48
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #49
S0: 1 2 4 5 6
S1: 1 3
Resonance #50
S0: 1 2 3 5 6
S1: 1 4
Resonance #51
S0: 1 2 3 4 6
S1: 1 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 6
Resonance #53
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #54
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #55
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #56
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #57
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #58
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #59
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #60
S0: 1 2 3 4 6

S1: 1 3 5
Resonance #61
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #62
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #63
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #64
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #65
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #66
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #67
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #68
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #69
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #70
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #71
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #72
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #73
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #74
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #75
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #76
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #77
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #78
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #79
S0: 1 2 3 4 5

```

S1: 1 3 5 6
Resonance #80
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #81
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #82
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #83
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #84
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #85
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #86
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #87
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #88
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #89
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #90
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #91
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #92
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #93
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #94
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #95
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #96
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 6
has #115 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 6
S1: 1 3 4 5
Resonance #6
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 4 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 3 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 3 5 6
S1: 1 2 4
Resonance #16
S0: 1 2 5 6
S1: 1 3 4
Resonance #17
S0: 1 3 4 6
S1: 1 2 5
Resonance #18
S0: 1 2 4 6

S1: 1 3 5
Resonance #19
S0: 1 2 3 6
S1: 1 4 5
Resonance #20
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #24
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #25
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #27
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #28
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #29
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #30
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #31
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #33
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #34
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #35
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #36
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #37
S0: 1 2 3 6

S1: 1 2 4 5
Resonance #38
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #39
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #40
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #41
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #42
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #43
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #44
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #45
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #46
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #47
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #48
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #49
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #50
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #51
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #52
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #53
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #54
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #55
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #56
S0: 1 3 4 5 6

S1: 1 2
Resonance #57
S0: 1 2 4 5 6
S1: 1 3
Resonance #58
S0: 1 2 3 5 6
S1: 1 4
Resonance #59
S0: 1 2 3 4 6
S1: 1 5
Resonance #60
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #61
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #62
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #63
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #64
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #65
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #66
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #67
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #68
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #69
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #70
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #71
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #72
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #73
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #74
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #75
S0: 1 2 3 4 6

S1: 1 2 5
Resonance #76
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #77
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #78
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #79
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #80
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #81
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #82
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #83
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #84
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #85
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #86
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #87
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #88
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #89
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #90
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #91
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #92
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #93
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #94
S0: 1 2 3 4 6

S1: 1 4 5 6
Resonance #95
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #96
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #97
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #98
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #99
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #100
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #101
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #102
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #103
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #104
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #105
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #106
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #107
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #108
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #109
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #110
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #111
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #112
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #113
S0: 1 2 3 4 6

```

S1: 1 2 4 5 6
Resonance #114
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #115
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #26
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
has #82 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2
S1: 1 3 4 5 6
Resonance #4
S0: 1 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 3 5
S1: 1 2 4 6
Resonance #8
S0: 1 2 4
S1: 1 3 5 6
Resonance #9
S0: 1 2 3
S1: 1 4 5 6
Resonance #10
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 3 5

```

S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #19
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 5 6
S1: 1 3 4
Resonance #21
S0: 1 3 4 6
S1: 1 2 5
Resonance #22
S0: 1 3 4 5
S1: 1 2 6
Resonance #23
S0: 1 2 3 4
S1: 1 5 6
Resonance #24
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #26
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #27
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #28
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #29
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #30
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #32
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #33
S0: 1 2 3 4

S1: 1 4 5 6
Resonance #34
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #35
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #36
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #37
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #39
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #40
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #41
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #42
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #45
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #46
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #49
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 4 5 6
S1: 1 3
Resonance #52
S0: 1 2 3 5 6

S1: 1 4
Resonance #53
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #54
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #55
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #56
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #57
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #58
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #59
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #60
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #61
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #62
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #63
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #64
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #65
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #66
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #67
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #68
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #69
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #70
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #71
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #72
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #73
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #74
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #75
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #76
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #77
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #78
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #79
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #80
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #81
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #82
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #27

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2

```

has #64 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 3
S1: 1 4 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5

```

S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4
S1: 1 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #19
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #20
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 6

S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 3
Resonance #34
S0: 1 2 3 5 6
S1: 1 4
Resonance #35
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #37
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #43
S0: 1 2 4 5 6

S1: 1 2 3 4
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #53
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #55
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #56
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #57
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #58
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #59
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #60
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #61
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #62
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #63
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #64
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #28
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
has #46 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 5
S1: 1 2 4 6
Resonance #3
S0: 1 2 3
S1: 1 4 5 6
Resonance #4
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 4 6
S1: 1 2 5
Resonance #9
S0: 1 3 4 5
S1: 1 2 6
Resonance #10
S0: 1 2 3 4
S1: 1 5 6
Resonance #11
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #12
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #14
S0: 1 3 4 5

```

S1: 1 2 4 6
Resonance #15
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #19
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #20
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 4
Resonance #29
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #31
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #33
S0: 1 2 3 5 6

```

S1: 1 2 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #42
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #44
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #45
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #46
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

```

The semigroup #29
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 5
has #40 resonances.
Resonance #1
S0: 1 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 3 5

```


S1: 1 2 4 6
Resonance #4
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 3 4
Resonance #8
S0: 1 3 4 5
S1: 1 2 6
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 3
Resonance #21
S0: 1 2 3 5 6
S1: 1 4
Resonance #22
S0: 1 2 4 5 6

```

S1: 1 3 4
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #57

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 5
1 1 1 1 5 6
has #77 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 6
S1: 1 3 4 5
Resonance #6
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 5 6
S1: 1 3 4
Resonance #13
S0: 1 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 6
S1: 1 3 5
Resonance #15
S0: 1 2 3 6
S1: 1 4 5
Resonance #16
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #17
S0: 1 4 5 6

S1: 1 2 3 4
Resonance #18
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #25
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #26
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #27
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #28
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #29
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #31
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #33
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #35
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #36
S0: 1 2 3 6

S1: 1 2 3 4 5
Resonance #37
S0: 1 3 4 5 6
S1: 1 2
Resonance #38
S0: 1 2 4 5 6
S1: 1 3
Resonance #39
S0: 1 2 3 5 6
S1: 1 4
Resonance #40
S0: 1 2 3 4 6
S1: 1 5
Resonance #41
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #42
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #43
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #44
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #45
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #46
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #47
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #48
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #49
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #50
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #51
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #52
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #53
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #54
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #55
S0: 1 3 4 5 6

S1: 1 2 3 5
Resonance #56
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #57
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #58
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #59
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #60
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #61
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #62
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #63
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #64
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #65
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #66
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #67
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #68
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #69
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #70
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #71
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #72
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #73
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #74
S0: 1 2 3 5 6

S1: 1 3 4 5 6
 Resonance #75
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #76
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #77
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #70

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 2 1
 1 1 1 1 1 2

has #82 resonances.

Resonance #1
 S0: 1 2
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 6
 S1: 1 3 4 5
 Resonance #3
 S0: 1 2 5
 S1: 1 3 4 6
 Resonance #4
 S0: 1 2 4
 S1: 1 3 5 6
 Resonance #5
 S0: 1 2 3
 S1: 1 4 5 6
 Resonance #6
 S0: 1 2 6
 S1: 1 2 3 4 5
 Resonance #7
 S0: 1 2 5
 S1: 1 2 3 4 6
 Resonance #8
 S0: 1 2 4
 S1: 1 3 4 5 6
 Resonance #9
 S0: 1 2 4
 S1: 1 2 3 5 6
 Resonance #10
 S0: 1 2 3
 S1: 1 3 4 5 6
 Resonance #11
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #12
 S0: 1 2 5 6
 S1: 1 3 4
 Resonance #13
 S0: 1 2 4 6

S1: 1 3 5
Resonance #14
S0: 1 2 3 6
S1: 1 4 5
Resonance #15
S0: 1 2 4 5
S1: 1 3 6
Resonance #16
S0: 1 2 3 5
S1: 1 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 5 6
Resonance #18
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #22
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #23
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #24
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #26
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #27
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #28
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #29
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #30
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #31
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 4 6

S1: 1 2 3 5 6
Resonance #33
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #35
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #36
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #37
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #38
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #39
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #40
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #41
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #42
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 3
Resonance #44
S0: 1 2 3 5 6
S1: 1 4
Resonance #45
S0: 1 2 3 4 6
S1: 1 5
Resonance #46
S0: 1 2 3 4 5
S1: 1 6
Resonance #47
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #48
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #49
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #50
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #51
S0: 1 2 3 4 6

S1: 1 4 5
Resonance #52
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #53
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #54
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #55
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #56
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #57
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #58
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #59
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #60
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #61
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #62
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #63
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #64
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #65
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #66
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #67
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #68
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #69
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #70
S0: 1 2 3 4 5

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S1: 1 2 3 6
Resonance #71
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #72
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #73
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #74
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #75
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #76
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #77
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #78
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #79
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #80
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #81
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #82
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

```

The semigroup #71
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 1
1 1 1 1 1 3
has #50 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6

```

S1: 1 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #19
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 4
Resonance #22
S0: 1 2 3 4 6
S1: 1 5
Resonance #23
S0: 1 2 3 4 5

S1: 1 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #27
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #35
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #36
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5

```

S1: 1 2 3 6
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #72
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 1
1 1 1 1 1 6
has #59 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 4 5
Resonance #7
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 5 6

```

S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #10
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #13
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #14
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #18
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 3
Resonance #24
S0: 1 2 3 5 6
S1: 1 4
Resonance #25
S0: 1 2 3 4 6
S1: 1 5
Resonance #26
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #27
S0: 1 2 4 5 6

S1: 1 3 4
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #29
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #30
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #32
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #33
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #34
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #36
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #44
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #45
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #46
S0: 1 2 3 4 6


```

S1: 1 2 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #50
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #52
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #53
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #54
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #55
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #56
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #57
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #58
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #59
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #106
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
has #64 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 3

```

S1: 1 4 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4
S1: 1 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #19
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #20
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 4 6

S1: 1 2 3 5 6
Resonance #23
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 3
Resonance #34
S0: 1 2 3 5 6
S1: 1 4
Resonance #35
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #37
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #41
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #53
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #55
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #56
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #57
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #58
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #59
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #60
S0: 1 2 3 4 6

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S1: 1 2 3 5 6
Resonance #61
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #62
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #63
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #64
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #107
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 3
has #34 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5

```

S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #31
S0: 1 2 3 4 6

S1: 1 2 3 4 5
 Resonance #32
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #33
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #34
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #133

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 2 3
 1 1 1 1 3 2

has #42 resonances.

Resonance #1
 S0: 1 2 6
 S1: 1 3 4 5
 Resonance #2
 S0: 1 2 5
 S1: 1 3 4 6
 Resonance #3
 S0: 1 2 3
 S1: 1 4 5 6
 Resonance #4
 S0: 1 2 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 5
 S1: 1 2 3 4 6
 Resonance #6
 S0: 1 2 3
 S1: 1 3 4 5 6
 Resonance #7
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #8
 S0: 1 2 4 6
 S1: 1 3 5
 Resonance #9
 S0: 1 2 4 5
 S1: 1 3 6
 Resonance #10
 S0: 1 2 3 4
 S1: 1 5 6
 Resonance #11
 S0: 1 2 4 6
 S1: 1 3 4 5
 Resonance #12
 S0: 1 2 4 6
 S1: 1 2 3 5
 Resonance #13
 S0: 1 2 3 6

S1: 1 3 4 5
Resonance #14
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #15
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #19
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #20
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 4
Resonance #28
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #30
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #32
S0: 1 2 3 5 6


```

S1: 1 2 3 4
Resonance #33
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #35
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #134
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 1 3 4
has #25 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 4 5
S1: 1 3 6
Resonance #3
S0: 1 2 3 4
S1: 1 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5

```

S1: 1 3 4 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #154
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 5 1
1 1 1 1 1 6
has #69 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 5 6
S1: 1 2 4
Resonance #6
S0: 1 2 5 6
S1: 1 3 4
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #11
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #12
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 4 5 6

```

S1: 1 2 3 5 6
Resonance #17
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 3 4 5 6
S1: 1 2
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 4
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #31
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #32
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #34
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #35
S0: 1 2 4 5 6

S1: 1 2 3
Resonance #36
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #37
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #38
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #41
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #42
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #43
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #44
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #45
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #46
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #47
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #48
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #49
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #50
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #51
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #52
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #53
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #54
S0: 1 2 3 5 6

```

S1: 1 2 4 6
Resonance #55
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #56
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #57
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #58
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #59
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #60
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #61
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #62
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #63
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #64
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #65
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #66
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #67
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #68
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #69
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #167
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 5 5
1 1 1 1 5 5
has #69 resonances.
Resonance #1
S0: 1 5 6

```

S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 5 6
S1: 1 3 4
Resonance #9
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #12
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #16
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #18
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 3 5 6

S1: 1 2 4 5 6
Resonance #21
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #27
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #29
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #30
S0: 1 3 4 5 6
S1: 1 2
Resonance #31
S0: 1 2 4 5 6
S1: 1 3
Resonance #32
S0: 1 2 3 5 6
S1: 1 4
Resonance #33
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #34
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #35
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #36
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #37
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #39
S0: 1 2 3 5 6

S1: 1 4 5
Resonance #40
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #42
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #43
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #44
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #45
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #46
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #47
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #48
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #49
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #50
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #51
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #52
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #53
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #54
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #55
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #56
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #57
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #58
S0: 1 3 4 5 6

```

S1: 1 2 4 5 6
Resonance #59
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #60
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #61
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #62
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #63
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #64
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #65
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #66
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #67
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #68
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #69
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #168

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 5 5
1 1 1 1 5 6

```

has #50 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 5 6

```

S1: 1 3 4
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2
Resonance #19
S0: 1 2 4 5 6
S1: 1 3
Resonance #20
S0: 1 2 3 5 6
S1: 1 4
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 4 5 6

S1: 1 3 5
Resonance #25
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #31
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #32
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #38
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #39
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #40
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #42
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #43
S0: 1 3 4 5 6

```

S1: 1 2 3 5 6
Resonance #44
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #46
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #47
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #49
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

```

*****

```

```

The semigroup #178

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 5 6
1 1 1 1 6 5

```

```

has #58 resonances.

```

```

Resonance #1
S0: 1 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 5
S1: 1 3 4 6
Resonance #6
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 4 5 6

```

S1: 1 2 3
Resonance #10
S0: 1 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 5 6
S1: 1 3 4
Resonance #12
S0: 1 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 4 5
S1: 1 3 6
Resonance #14
S0: 1 2 3 5
S1: 1 4 6
Resonance #15
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #24
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #27
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 4 5

S1: 1 2 3 4 6
Resonance #29
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #30
S0: 1 3 4 5 6
S1: 1 2
Resonance #31
S0: 1 2 4 5 6
S1: 1 3
Resonance #32
S0: 1 2 3 5 6
S1: 1 4
Resonance #33
S0: 1 2 3 4 5
S1: 1 6
Resonance #34
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #35
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #36
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #38
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #40
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #43
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #44
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #45
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #46
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #47
S0: 1 2 3 5 6

```

S1: 1 4 5 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #49
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #52
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #55
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #56
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #57
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #58
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #405
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 2 1
has #60 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2
S1: 1 3 4 5 6
Resonance #3
S0: 1 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3

```


S1: 1 4 5 6
Resonance #6
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #12
S0: 1 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #16
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #20
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 6

S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 3
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #42
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #43
S0: 1 2 3 4 6

```

S1: 1 2 5 6
Resonance #44
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #45
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #46
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #47
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #48
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #49
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #51
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #54
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #55
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #56
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #57
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #58
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #59
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #60
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #406
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

```

1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 2 2
has #54 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6

S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6

```

S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #407
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

```

1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 2 3
has #32 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 5
S1: 1 2 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #18
S0: 1 2 3 4 5

```

S1: 1 2 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #408
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 2 4
has #30 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 2 4

```


S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 3
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #421

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 3 1

```

has #39 resonances.

```

Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 5
S1: 1 3 4 6
Resonance #4
S0: 1 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3
S1: 1 4 5 6
Resonance #6
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 6

```

S1: 1 2 3 4 5
Resonance #8
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #12
S0: 1 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 4 6
S1: 1 3 5
Resonance #14
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #16
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #19
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #20
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 5

```

S1: 1 2 3 4 6
Resonance #27
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #30
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #422
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 3 2
has #29 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6

```

S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 6

```

S1: 1 2 3 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

```

The semigroup #423

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 3 4

```

```

has #19 resonances.

```

```

Resonance #1
S0: 1 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 6

```

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #428
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 1
has #60 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 3
S1: 1 4 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4

```

S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 6
S1: 1 3 5
Resonance #10
S0: 1 2 3 5
S1: 1 4 6
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #15
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #18
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5

S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 3
Resonance #31
S0: 1 2 3 4 6
S1: 1 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #42
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #43
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #44
S0: 1 2 3 4 6

```

S1: 1 2 4 5
Resonance #45
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #46
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #47
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #48
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #49
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #51
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #54
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #55
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #56
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #57
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #58
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #59
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #60
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #429
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 2

```

has #60 resonances.

Resonance #1

S0: 1 2

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 5

S1: 1 3 4 6

Resonance #3

S0: 1 2 3

S1: 1 4 5 6

Resonance #4

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #6

S0: 1 2 4

S1: 1 2 3 5 6

Resonance #7

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #8

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #9

S0: 1 2 4 6

S1: 1 3 5

Resonance #10

S0: 1 2 3 5

S1: 1 4 6

Resonance #11

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #12

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #13

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #14

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #15

S0: 1 2 3 5

S1: 1 3 4 6

Resonance #16

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #17

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #18

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #19

S0: 1 2 5 6

S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 3
Resonance #31
S0: 1 2 3 4 6
S1: 1 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #38
S0: 1 2 4 5 6

S1: 1 2 3 5
Resonance #39
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #42
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #43
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #44
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #45
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #46
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #47
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #48
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #49
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #51
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #54
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #55
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #56
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #57
S0: 1 2 3 4 6

S1: 1 2 3 4 5
 Resonance #58
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #59
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #60
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #430

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 2 1
 1 1 1 2 1 3

has #32 resonances.

Resonance #1
 S0: 1 2 3
 S1: 1 4 5 6
 Resonance #2
 S0: 1 2 3
 S1: 1 3 4 5 6
 Resonance #3
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #4
 S0: 1 2 3 5
 S1: 1 4 6
 Resonance #5
 S0: 1 2 3 6
 S1: 1 2 4 5
 Resonance #6
 S0: 1 2 3 5
 S1: 1 3 4 6
 Resonance #7
 S0: 1 2 3 5
 S1: 1 2 4 6
 Resonance #8
 S0: 1 2 3 4
 S1: 1 2 5 6
 Resonance #9
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #10
 S0: 1 2 3 5
 S1: 1 2 4 5 6
 Resonance #11
 S0: 1 2 3 5
 S1: 1 2 3 4 6
 Resonance #12
 S0: 1 2 3 4
 S1: 1 2 4 5 6
 Resonance #13
 S0: 1 2 3 4

S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #431
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 4
has #30 resonances.
Resonance #1
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3
Resonance #12
S0: 1 2 3 4 6
S1: 1 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #16
S0: 1 2 3 4 5

```



```

S1: 1 2 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #459
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 1
has #54 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3

```

S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5

S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #460
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 2
has #54 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3

```

S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5

S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #461
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 3
has #28 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5


```

S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

The semigroup #462

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 4

```

has #27 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #484

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 3 1
has #28 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4

```

S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #485
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 3 2
has #28 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3

```

S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #486
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 3 3
has #20 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #487

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 3 4

```

has #14 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #499
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 4
1 1 1 2 4 5
has #14 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 5
S1: 1 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6

```



```

S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #501
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 2 1 1
has #43 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3
S1: 1 4 5 6
Resonance #4
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5
S1: 1 2 6
Resonance #10
S0: 1 2 3 5
S1: 1 4 6
Resonance #11
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 6

```

S1: 1 2 4 5
Resonance #13
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #17
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 5
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #27
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #31
S0: 1 2 3 5 6

```

S1: 1 2 3 4
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #33
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #35
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #502

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 2 1 2

```

has #33 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5

```

S1: 1 4 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 6

```

S1: 1 2 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #31
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #503

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 2 1 3

```

has #39 resonances.

Resonance #1

```

S0: 1 3 6
S1: 1 2 4 5

```

Resonance #2

```

S0: 1 3 4
S1: 1 2 5 6

```

Resonance #3

```

S0: 1 2 3
S1: 1 4 5 6

```

Resonance #4

```

S0: 1 3 6
S1: 1 2 3 4 5

```

Resonance #5

```

S0: 1 3 4
S1: 1 2 3 5 6

```

Resonance #6

```

S0: 1 2 3

```

S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5
S1: 1 2 6
Resonance #10
S0: 1 2 3 5
S1: 1 4 6
Resonance #11
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #13
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #17
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 5
Resonance #25
S0: 1 2 3 5 6

```

S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #31
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #504
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 2 1 4
has #20 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4

```

```

S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #513

```


1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 2
1 1 1 2 2 1
has #32 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 5
S1: 1 2 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 6

```

S1: 1 2 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #514

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 2
1 1 1 2 2 2

```

has #28 resonances.

```

Resonance #1
S0: 1 2 3

```

S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 3 4 5

```

S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #515

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 2
1 1 1 2 2 3

```

has #28 resonances.

```

Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 5
S1: 1 2 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5

```

S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #516
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 2
1 1 1 2 2 4
has #15 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #521
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 2 3 1
has #29 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 5

```

```

S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #522

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 2 3 2

```

has #21 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3

```



```

S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #523

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 2 3 3
has #29 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 4

```

S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #524

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 2 3 4

```

has #13 resonances.

```

Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4

```

```

S1: 1 2 5 6
Resonance #5
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #525

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 5 1
1 1 1 2 1 1

```

has #51 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 5
S1: 1 3 4 6
Resonance #4
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 5

```

S1: 1 2 3 4 6
Resonance #8
S0: 1 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5
S1: 1 2 6
Resonance #10
S0: 1 2 3 5
S1: 1 4 6
Resonance #11
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #12
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #15
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #18
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #19
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #20
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 5

S1: 1 3 4 5 6
Resonance #27
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 3
Resonance #30
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #526
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 5 1
1 1 1 2 1 2
has #39 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 4 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 5 6

```

S1: 1 2 3 4 6
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 3
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #29
S0: 1 2 3 4 5


```

S1: 1 2 4 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #527
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 5 1
1 1 1 2 1 3
has #27 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 5
S1: 1 4 6
Resonance #4
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5

```

S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #528
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 5 1
1 1 1 2 1 4
has #23 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #536

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 5 5
1 1 1 2 5 5

```

has #31 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 3 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #7
S0: 1 3 5 6

```

S1: 1 2 3 4
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #10
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #11
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 3
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #26
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #1033

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 4
1 1 1 1 1 4
1 1 1 4 4 6

```

has #45 resonances.

```

Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 6
S1: 1 3 4 5
Resonance #4
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 6
S1: 1 4 5
Resonance #9
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 6

```

S1: 1 3 4 5
Resonance #12
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #14
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #19
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2
Resonance #22
S0: 1 2 4 5 6
S1: 1 3
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #30
S0: 1 3 4 5 6

```

S1: 1 2 3 4
Resonance #31
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #37
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #38
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #39
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #40
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #44
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #45
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #1046
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 4
1 1 1 1 1 5
1 1 1 4 5 6
has #67 resonances.
Resonance #1
S0: 1 6

```


S1: 1 2 3 4 5
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 6
S1: 1 3 4 5
Resonance #6
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 5 6
S1: 1 3 4
Resonance #13
S0: 1 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 6
S1: 1 3 5
Resonance #15
S0: 1 2 3 6
S1: 1 4 5
Resonance #16
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #17
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 5 6

S1: 1 3 4 5
Resonance #21
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #25
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #26
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #27
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #28
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 3 4 5 6
S1: 1 2
Resonance #35
S0: 1 2 4 5 6
S1: 1 3
Resonance #36
S0: 1 2 3 5 6
S1: 1 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 5
Resonance #38
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #39
S0: 1 3 4 5 6

S1: 1 2 4
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #41
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #42
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #44
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #47
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #50
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #51
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #52
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #53
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #54
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #55
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #56
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #57
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #58
S0: 1 2 3 5 6

```

S1: 1 2 3 4
Resonance #59
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #60
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #61
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #62
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #63
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #64
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #65
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #66
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #67
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #1057

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 4
1 1 1 1 2 1
1 1 1 4 1 6

```

has #39 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6

```

S1: 1 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #20
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #22
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #25
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #26
S0: 1 2 4 5 6

```

S1: 1 2 3 5
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #31
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #37
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #1062

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 4
1 1 1 1 2 4
1 1 1 4 4 6

```

has #23 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6

```

S1: 1 4 5
Resonance #4
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #22
S0: 1 2 3 4 6

```

S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #1065
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 4
1 1 1 1 4 5
1 1 1 4 5 6
has #35 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 4 6
S1: 1 3 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2
Resonance #15
S0: 1 2 4 5 6

```


S1: 1 3
Resonance #16
S0: 1 2 3 4 6
S1: 1 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #31
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #32
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #34
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #1069
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 4
1 1 1 1 5 1
1 1 1 4 1 6
has #45 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 5 6

```

S1: 1 2 3 4 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2
Resonance #17
S0: 1 2 4 5 6
S1: 1 3
Resonance #18
S0: 1 2 3 5 6
S1: 1 4
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #26
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #31
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #32
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #34
S0: 1 2 4 5 6

```

S1: 1 2 3 5
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #39
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #41
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #42
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #1076

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 4
1 1 1 1 5 5
1 1 1 4 5 6

```

has #40 resonances.

Resonance #1

```

S0: 1 5 6
S1: 1 2 3 4

```

Resonance #2

```

S0: 1 5 6
S1: 1 2 3 4 5

```

Resonance #3

```

S0: 1 4 5 6
S1: 1 2 3

```

Resonance #4

```

S0: 1 3 5 6
S1: 1 2 4

```

Resonance #5

```

S0: 1 2 5 6

```

S1: 1 3 4
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2
Resonance #16
S0: 1 2 4 5 6
S1: 1 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 3 5 6

```

S1: 1 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #37
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #39
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #40
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #1170
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 1 2 2 1

```

has #54 resonances.

Resonance #1

S0: 1 2

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 4 5 6

Resonance #3

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #5

S0: 1 2 4

S1: 1 2 3 5 6

Resonance #6

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #7

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #9

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #10

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #11

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #12

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #13

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #14

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #15

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #16

S0: 1 2 4 6

S1: 1 2 3 5 6

Resonance #17

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #18

S0: 1 2 3 6

S1: 1 2 4 5 6

Resonance #19

S0: 1 2 3 6

S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6


```

S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1171
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 1 2 2 2

```

has #54 resonances.

Resonance #1

S0: 1 2

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 4 5 6

Resonance #3

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #5

S0: 1 2 4

S1: 1 2 3 5 6

Resonance #6

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #7

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #9

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #10

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #11

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #12

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #13

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #14

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #15

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #16

S0: 1 2 4 6

S1: 1 2 3 5 6

Resonance #17

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #18

S0: 1 2 3 6

S1: 1 2 4 5 6

Resonance #19

S0: 1 2 3 6

S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6

```

S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1172
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 1 2 2 3

```

has #28 resonances.

Resonance #1

S0: 1 2 3

S1: 1 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #4

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #5

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #6

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #7

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #8

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #9

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #10

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #11

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #12

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #13

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #14

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #15

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #16

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #17

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #18

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #19

S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1185

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 3
1 1 1 2 3 1

```

has #28 resonances.

```

Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3

```

S1: 1 2 4 5 6
Resonance #8
S0: 1 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6

```

S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1186
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 3
1 1 1 2 3 2
has #24 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4

```



```

S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1187

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 3
1 1 1 2 3 3

```

has #22 resonances.

Resonance #1

```

S0: 1 3 4
S1: 1 2 5 6

```

Resonance #2

```

S0: 1 2 3
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 3 4
S1: 1 2 3 5 6

```

Resonance #4

```

S0: 1 2 3
S1: 1 3 4 5 6

```

Resonance #5

```

S0: 1 2 3
S1: 1 2 4 5 6

```

Resonance #6

```

S0: 1 3 5 6

```

```

S1: 1 2 4
Resonance #7
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1194
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 1
1 1 1 2 1 2

```

has #54 resonances.

Resonance #1

S0: 1 2

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 4 5 6

Resonance #3

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #5

S0: 1 2 4

S1: 1 2 3 5 6

Resonance #6

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #7

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #9

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #10

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #11

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #12

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #13

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #14

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #15

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #16

S0: 1 2 4 6

S1: 1 2 3 5 6

Resonance #17

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #18

S0: 1 2 3 6

S1: 1 2 4 5 6

Resonance #19

S0: 1 2 3 6

S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6

```

S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1195
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 1
1 1 1 2 1 3

```

has #28 resonances.

Resonance #1

S0: 1 2 3

S1: 1 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #4

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #5

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #6

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #7

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #8

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #9

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #10

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #11

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #12

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #13

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #14

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #15

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #16

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #17

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #18

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #19

S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1214

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 2
1 1 1 2 2 2

```

has #54 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3

```

S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6

S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1215

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 2
1 1 1 2 2 3

```

has #28 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 6

```

S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1234
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 3
1 1 1 2 3 2
has #24 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1235
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 3
1 1 1 2 3 3
has #18 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5

```

```

S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1244

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 1
1 1 1 2 1 3

```

has #28 resonances.

Resonance #1

S0: 1 3 4

S1: 1 2 5 6

Resonance #2

S0: 1 2 3

S1: 1 4 5 6

Resonance #3

S0: 1 3 4

S1: 1 2 3 5 6

Resonance #4

S0: 1 2 3

S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1253

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 2
1 1 1 2 2 3

```

has #24 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6

```



```

S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1263
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 1 2 3 3
has #22 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 3 4

```

S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #1271
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 4 4
1 1 1 2 4 4
has #20 resonances.
Resonance #1
S0: 1 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1323
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 2 1 3
1 1 1 3 3 2
has #21 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5
S1: 1 3 6
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 5

```

```

S1: 1 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1324

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 2 1 3
1 1 1 3 3 3

```

has #24 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 6

```

```

S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1325
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

```

1 1 1 1 2 3
1 1 1 2 2 1
1 1 1 3 1 2
has #28 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 4 6

```

S1: 1 2 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1326

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 2 2 1
1 1 1 3 1 3

```

has #21 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 6

```



```

S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #1330

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 2 2 2
1 1 1 3 2 2

```

has #24 resonances.

```

Resonance #1
S0: 1 2 3

```

S1: 1 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1331
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 2 2 2
1 1 1 3 2 3
has #18 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5

```

```

S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1334
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 2 2 3
1 1 1 3 3 2
has #21 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5
S1: 1 3 6
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5

```

S1: 1 2 3 4 6
 Resonance #11
 S0: 1 2 3 4
 S1: 1 2 3 5 6
 Resonance #12
 S0: 1 2 3 4 5
 S1: 1 3 6
 Resonance #13
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #14
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #15
 S0: 1 2 3 4 5
 S1: 1 2 3 6
 Resonance #16
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #17
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #18
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #19
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #20
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #21
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #1335

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 2 3
 1 1 1 2 3 1
 1 1 1 3 1 2

has #19 resonances.

Resonance #1
 S0: 1 2 3
 S1: 1 4 5 6
 Resonance #2
 S0: 1 2 3
 S1: 1 3 4 5 6
 Resonance #3
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #4
 S0: 1 2 3 6
 S1: 1 3 4 5
 Resonance #5
 S0: 1 2 3 5

```

S1: 1 2 4 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1337
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 2 3 2
1 1 1 3 2 2
has #17 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3

```

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #1368

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 4 4
1 1 1 4 5 5
1 1 1 4 5 5

```

has #31 resonances.

```

Resonance #1
S0: 1 5 6

```

S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2
Resonance #12
S0: 1 2 4 5 6
S1: 1 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 4
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #20
S0: 1 3 4 5 6


```

S1: 1 2 4 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

The semigroup #1369

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 4 4
1 1 1 4 5 5
1 1 1 4 5 6

```

has #26 resonances.

Resonance #1

```

S0: 1 5 6
S1: 1 2 3 4

```

Resonance #2

```

S0: 1 4 5 6
S1: 1 2 3

```

Resonance #3

```

S0: 1 3 5 6
S1: 1 2 4

```

Resonance #4

```

S0: 1 2 5 6
S1: 1 3 4

```

Resonance #5

```

S0: 1 4 5 6

```

S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 3 5 6
S1: 1 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #24
S0: 1 3 4 5 6

```

S1: 1 2 3 4 5
Resonance #25
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #1375
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 4 4
1 1 1 4 5 6
1 1 1 4 6 5
has #30 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #11
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2
Resonance #14
S0: 1 2 4 5 6

```

```

S1: 1 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 4
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #20
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #22
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1420
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 2 1
1 1 1 1 1 2

```

has #72 resonances.

Resonance #1

S0: 1 2

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 6

S1: 1 3 4 5

Resonance #3

S0: 1 2 5

S1: 1 3 4 6

Resonance #4

S0: 1 2 4

S1: 1 3 5 6

Resonance #5

S0: 1 2 3

S1: 1 4 5 6

Resonance #6

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #8

S0: 1 2 4

S1: 1 2 3 5 6

Resonance #9

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #10

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #11

S0: 1 2 5 6

S1: 1 3 4

Resonance #12

S0: 1 2 4 6

S1: 1 3 5

Resonance #13

S0: 1 2 3 6

S1: 1 4 5

Resonance #14

S0: 1 2 4 5

S1: 1 3 6

Resonance #15

S0: 1 2 3 5

S1: 1 4 6

Resonance #16

S0: 1 2 3 4

S1: 1 5 6

Resonance #17

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #18

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #19

S0: 1 2 3 6

S1: 1 3 4 5
Resonance #20
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #26
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #34
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #35
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #36
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #37
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #38
S0: 1 2 4 5 6

S1: 1 3
Resonance #39
S0: 1 2 3 5 6
S1: 1 4
Resonance #40
S0: 1 2 3 4 6
S1: 1 5
Resonance #41
S0: 1 2 3 4 5
S1: 1 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #43
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #45
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #47
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #48
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #49
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #50
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #51
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #52
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #53
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #54
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #55
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #56
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #57
S0: 1 2 3 4 6

```

S1: 1 2 3 5
Resonance #58
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #59
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #60
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #61
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #62
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #63
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #64
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #65
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #66
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #67
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #68
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #69
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #70
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #71
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #72
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1421
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 2 1
1 1 1 1 1 3
has #43 resonances.
Resonance #1
S0: 1 2 3

```


S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 4
Resonance #20
S0: 1 2 3 4 6

S1: 1 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #24
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #34
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #39
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1422
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 2 1
1 1 1 1 1 6
has #51 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 4 5
Resonance #7
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #10
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #12
S0: 1 2 3 6

```

S1: 1 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 3
Resonance #22
S0: 1 2 3 5 6
S1: 1 4
Resonance #23
S0: 1 2 3 4 6
S1: 1 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #26
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #31
S0: 1 2 3 4 6

S1: 1 2 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #35
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #39
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #42
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #1443
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 2 2
1 1 1 1 2 2
has #60 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 3
S1: 1 4 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 5 6
S1: 1 3 4
Resonance #10
S0: 1 2 3 4
S1: 1 5 6
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #15
S0: 1 2 3 5

```

S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #18
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 3
Resonance #31
S0: 1 2 3 5 6
S1: 1 4
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #33
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #34
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #42
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #43
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #44
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #45
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #46
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #47
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #48
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #49
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #51
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 5 6


```

S1: 1 2 3 4 6
Resonance #54
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #55
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #56
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #57
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #58
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #59
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #60
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

The semigroup #1444

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 2 2
1 1 1 1 2 3

```

has #32 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 6

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1467
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 2 3
1 1 1 1 3 2
has #36 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 3
S1: 1 4 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 4 6
S1: 1 3 5
Resonance #9
S0: 1 2 4 5
S1: 1 3 6
Resonance #10
S0: 1 2 3 4
S1: 1 5 6
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 6

```

S1: 1 3 4 5
Resonance #13
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #16
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 4
Resonance #24
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #31
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #35
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1468

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 2 3
1 1 1 1 3 3

```

has #29 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5

```

```

S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1479

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 3 1
1 1 1 1 1 6
has #29 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 5 6

```

S1: 1 2 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #1487

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 3 2
1 1 1 1 2 3

```

has #28 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4

```


S1: 1 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1500

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 3 3
1 1 1 1 3 3

```

has #33 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5

```

S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #31
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1510

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 5 1
1 1 1 1 1 6

```

has #33 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6

```

S1: 1 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #1521
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 5 5
1 1 1 1 5 5
has #35 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #15
S0: 1 2 4 5 6

```

S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #27
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #35
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #1522
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 5 5
1 1 1 1 5 6
has #24 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6

```



```

S1: 1 2 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #1530

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 1
1 1 1 1 5 6
1 1 1 1 6 5

```

has #30 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 5
S1: 1 3 6
Resonance #5
S0: 1 2 3 5
S1: 1 4 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 5

```

S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 3
Resonance #14
S0: 1 2 3 5 6
S1: 1 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #26
S0: 1 2 3 4 5

```

S1: 1 2 3 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1668
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 2 2
1 1 1 2 2 2
has #54 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5

```

S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1669
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 2 2
1 1 1 2 2 3
has #28 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1680
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 2 3
1 1 1 2 3 2

```

has #28 resonances.

Resonance #1

S0: 1 2 5

S1: 1 3 4 6

Resonance #2

S0: 1 2 3

S1: 1 4 5 6

Resonance #3

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #5

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #6

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #7

S0: 1 2 4 6

S1: 1 3 5

Resonance #8

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #9

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #10

S0: 1 2 3 5

S1: 1 3 4 6

Resonance #11

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #12

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #13

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #14

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #15

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #16

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #17

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #18

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #19

S0: 1 2 3 4 6


```

S1: 1 3 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1681

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 2 3
1 1 1 2 3 3

```

has #20 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5

```

```

S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1686
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 3 2
1 1 1 2 2 2
has #28 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3

```

S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1687
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 3 2
1 1 1 2 2 3
has #24 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1693
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 3 3
1 1 1 2 3 2
has #21 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #1695
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 5 1
1 1 1 2 1 2
has #39 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 4 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 5

```

S1: 1 2 3 4 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 3
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #35
S0: 1 2 3 5 6


```

S1: 1 2 3 4 6
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1696
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 2
1 1 1 1 5 1
1 1 1 2 1 3
has #19 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 4 6
Resonance #2
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 5

```

S1: 1 2 5 6
 Resonance #13
 S0: 1 2 3 4 5
 S1: 1 2 4 6
 Resonance #14
 S0: 1 2 3 4 5
 S1: 1 2 3 6
 Resonance #15
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #16
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #17
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #18
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #19
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #1703

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 2 1 2
 1 1 1 1 5 5
 1 1 1 2 5 5

has #22 resonances.

Resonance #1
 S0: 1 2 5
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #3
 S0: 1 2 3 5
 S1: 1 4 5 6
 Resonance #4
 S0: 1 2 5 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 4 5
 S1: 1 2 3 5 6
 Resonance #6
 S0: 1 2 3 5
 S1: 1 3 4 5 6
 Resonance #7
 S0: 1 2 3 5
 S1: 1 2 4 5 6
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #9
 S0: 1 2 4 5 6

```

S1: 1 3 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #1905
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 3
1 1 1 1 2 3
1 1 1 3 3 2
has #25 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6

```

S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5
S1: 1 3 6
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #11
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6

S1: 1 2 3 5 6
 Resonance #23
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #24
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #25
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #1906

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 2 1 3
 1 1 1 1 2 3
 1 1 1 3 3 3

has #24 resonances.

Resonance #1
 S0: 1 2 3
 S1: 1 4 5 6
 Resonance #2
 S0: 1 2 3
 S1: 1 3 4 5 6
 Resonance #3
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #4
 S0: 1 2 3 6
 S1: 1 3 4 5
 Resonance #5
 S0: 1 2 3 5
 S1: 1 3 4 6
 Resonance #6
 S0: 1 2 3 4
 S1: 1 3 5 6
 Resonance #7
 S0: 1 2 3 6
 S1: 1 3 4 5 6
 Resonance #8
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #9
 S0: 1 2 3 5
 S1: 1 2 3 4 6
 Resonance #10
 S0: 1 2 3 4
 S1: 1 2 3 5 6
 Resonance #11
 S0: 1 2 3 5 6
 S1: 1 3 4
 Resonance #12
 S0: 1 2 3 4 6
 S1: 1 3 5
 Resonance #13
 S0: 1 2 3 4 5

```

S1: 1 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #1907

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 3
1 1 1 1 3 2
1 1 1 3 2 2

```

has #19 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4

```

```

S1: 1 3 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1908
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 3
1 1 1 1 5 1
1 1 1 3 1 2
has #25 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 4 5

```

S1: 1 3 6
Resonance #3
S0: 1 2 3 5
S1: 1 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #21
S0: 1 2 3 4 5


```

S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1909
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 1 3
1 1 1 1 5 5
1 1 1 3 5 5
has #16 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #1939
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 1 1 2 2 2
has #54 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5

```

S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 3
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #31
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1940
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 1 1 2 2 3
has #28 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #1951
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 3
1 1 1 2 3 2

```

has #24 resonances.

Resonance #1

S0: 1 2 3

S1: 1 4 5 6

Resonance #2

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #4

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #5

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #6

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #7

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #8

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #9

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #10

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #11

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #12

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #13

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #14

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #15

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #16

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #17

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #18

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #19

S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #1952

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 3
1 1 1 2 3 3

```

has #18 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 6

```


S1: 1 2 3 5
 Resonance #12
 S0: 1 2 3 4 5
 S1: 1 2 3 6
 Resonance #13
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #14
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #15
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #16
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #17
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #18
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #1957

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 2 2 2
 1 1 1 2 3 2
 1 1 1 2 2 3

has #24 resonances.

Resonance #1
 S0: 1 2 3
 S1: 1 4 5 6
 Resonance #2
 S0: 1 2 3
 S1: 1 3 4 5 6
 Resonance #3
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #4
 S0: 1 2 3 6
 S1: 1 2 4 5
 Resonance #5
 S0: 1 2 3 5
 S1: 1 2 4 6
 Resonance #6
 S0: 1 2 3 4
 S1: 1 2 5 6
 Resonance #7
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #8
 S0: 1 2 3 5
 S1: 1 2 3 4 6
 Resonance #9
 S0: 1 2 3 4

```

S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #1963

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 3 3
1 1 1 2 3 3

```

has #18 resonances.

```

Resonance #1
S0: 1 2 3

```

```

S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2008
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

```

1 1 1 2 2 3
1 1 1 2 2 3
1 1 1 3 3 2
has #21 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5
S1: 1 3 6
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 6

S1: 1 2 3 5 6
 Resonance #19
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #20
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #21
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #2009

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 2 2 3
 1 1 1 2 3 2
 1 1 1 3 2 2

has #17 resonances.

Resonance #1
 S0: 1 2 3
 S1: 1 4 5 6
 Resonance #2
 S0: 1 2 3
 S1: 1 3 4 5 6
 Resonance #3
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #4
 S0: 1 2 3 5
 S1: 1 2 4 6
 Resonance #5
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #6
 S0: 1 2 3 5
 S1: 1 2 3 4 6
 Resonance #7
 S0: 1 2 3 4
 S1: 1 2 3 5 6
 Resonance #8
 S0: 1 2 3 4 6
 S1: 1 2 5
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #10
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #11
 S0: 1 2 3 4 5
 S1: 1 2 3 6
 Resonance #12
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #13
 S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2010
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 3
1 1 1 2 3 2
1 1 1 3 2 3
has #17 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2017
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 3 3
1 1 1 3 2 3
1 1 1 3 3 2
has #21 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6

```

```

S1: 1 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2018
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 1 1
1 1 1 1 5 1
1 1 1 1 1 6
has #37 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 4 5 6

```


S1: 1 2 3 4 6
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #24
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #25
S0: 1 2 4 5 6

```

S1: 1 3 4 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #31
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #32
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #33
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #2025

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 1 1
1 1 1 1 5 5
1 1 1 1 5 5

```

has #41 resonances.

```

Resonance #1
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 4 5 6

```

S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #10
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2
Resonance #14
S0: 1 2 4 5 6
S1: 1 3
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #23
S0: 1 3 4 5 6

```

S1: 1 2 4 5
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #33
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #34
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #35
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #36
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #2026

```

```
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 1 1
1 1 1 1 5 5
1 1 1 1 5 6
has #27 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 2 4 5 6
S1: 1 3
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #17
S0: 1 3 4 5 6
```

```

S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #2032

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 1 1
1 1 1 1 5 6
1 1 1 1 6 5

```

has #35 resonances.

```

Resonance #1
S0: 1 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 6
Resonance #6
S0: 1 4 5 6

```

S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #8
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2
Resonance #15
S0: 1 2 4 5 6
S1: 1 3
Resonance #16
S0: 1 2 3 4 5
S1: 1 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #25
S0: 1 3 4 5 6

```

S1: 1 2 3 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #31
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #32
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #35
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2079

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 1 4
1 1 1 1 5 5
1 1 1 4 5 6

```

has #22 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 5

Resonance #3

S0: 1 4 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 4 5 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 3 4 5 6

S1: 1 2

Resonance #6

S0: 1 2 4 5 6


```

S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #2153
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4

```

has #55 resonances.

Resonance #1

S0: 1 4 6

S1: 1 2 3 4 5

Resonance #2

S0: 1 4 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 3 4

S1: 1 2 4 5 6

Resonance #4

S0: 1 2 4

S1: 1 3 4 5 6

Resonance #5

S0: 1 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 4 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 3 4 6

S1: 1 2 4 5

Resonance #8

S0: 1 2 4 6

S1: 1 3 4 5

Resonance #9

S0: 1 3 4 5

S1: 1 2 4 6

Resonance #10

S0: 1 2 4 5

S1: 1 3 4 6

Resonance #11

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #12

S0: 1 4 5 6

S1: 1 2 3 4 6

Resonance #13

S0: 1 4 5 6

S1: 1 2 3 4 5

Resonance #14

S0: 1 3 4 6

S1: 1 2 4 5 6

Resonance #15

S0: 1 3 4 6

S1: 1 2 3 4 5

Resonance #16

S0: 1 2 4 6

S1: 1 3 4 5 6

Resonance #17

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #18

S0: 1 3 4 5

S1: 1 2 4 5 6

Resonance #19

S0: 1 3 4 5

S1: 1 2 3 4 6
Resonance #20
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2
Resonance #25
S0: 1 2 4 5 6
S1: 1 3
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #28
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #30
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #32
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #33
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #34
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #35
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #36
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #38
S0: 1 2 3 4 6

```

S1: 1 4 5 6
Resonance #39
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #41
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #42
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #43
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #44
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #45
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #46
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #47
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #48
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #49
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #50
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #53
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #54
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #55
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2154
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 5
has #31 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2
Resonance #12
S0: 1 2 4 5 6
S1: 1 3
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #17
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #18
S0: 1 3 4 5 6

```

S1: 1 2 4 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2155

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 6

```

has #36 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6

```

S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2
Resonance #13
S0: 1 2 4 5 6
S1: 1 3
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 4 5 6

```

S1: 1 3 4 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #2166

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 4 4
1 1 1 4 4 5
1 1 1 4 5 6

```

has #26 resonances.

Resonance #1

```

S0: 1 4 6
S1: 1 2 3 4 5

```

Resonance #2

```

S0: 1 4 5 6

```


S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 3 4 6

```

S1: 1 2 4 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #2173
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 4 4
1 1 1 4 5 4
1 1 1 4 4 6
has #22 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 3 4 5 6

```

S1: 1 2 4 6
 Resonance #12
 S0: 1 3 4 5 6
 S1: 1 2 4 5
 Resonance #13
 S0: 1 3 4 5 6
 S1: 1 2 3 4
 Resonance #14
 S0: 1 2 4 5 6
 S1: 1 3 4 6
 Resonance #15
 S0: 1 2 4 5 6
 S1: 1 3 4 5
 Resonance #16
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #17
 S0: 1 3 4 5 6
 S1: 1 2 4 5 6
 Resonance #18
 S0: 1 3 4 5 6
 S1: 1 2 3 4 6
 Resonance #19
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5
 Resonance #20
 S0: 1 2 4 5 6
 S1: 1 3 4 5 6
 Resonance #21
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6
 Resonance #22
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5

The semigroup #2179

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 4 4 4
 1 1 1 4 5 5
 1 1 1 4 5 5

has #22 resonances.

Resonance #1
 S0: 1 4 5 6
 S1: 1 2 3
 Resonance #2
 S0: 1 4 5 6
 S1: 1 2 3 4
 Resonance #3
 S0: 1 4 5 6
 S1: 1 2 3 4 5
 Resonance #4
 S0: 1 3 4 5
 S1: 1 2 4 5 6
 Resonance #5
 S0: 1 2 4 5

```

S1: 1 3 4 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 2 4 5 6
S1: 1 3
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #2180
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

```

```

1 1 1 4 4 4
1 1 1 4 5 5
1 1 1 4 5 6
has #17 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #2186

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 4 4
1 1 1 4 5 6
1 1 1 4 6 5
has #21 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 5

```

S1: 1 3 4 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2222
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 4 6
1 1 1 4 4 6
1 1 1 6 6 4
has #26 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 6
Resonance #5
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2
Resonance #11
S0: 1 2 4 5 6
S1: 1 3
Resonance #12
S0: 1 2 3 4 5

```

```

S1: 1 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #2224
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 4 6
1 1 1 4 5 6
1 1 1 6 6 4
has #21 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 4 5 6

```


S1: 1 2 3
Resonance #3
S0: 1 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 6
Resonance #5
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 4 5
S1: 1 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 4 5 6

```

S1: 1 2 3 4 6
*****
The semigroup #2242
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 5 5
1 1 1 5 4 4
1 1 1 5 4 4
has #26 resonances.
Resonance #1
S0: 1 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 4
S1: 1 3 5 6
Resonance #4
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4
S1: 1 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #10
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2
Resonance #15
S0: 1 2 4 5 6
S1: 1 3
Resonance #16
S0: 1 3 4 5 6

```

```

S1: 1 2 3
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #2250
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 4 5 6
1 1 1 5 6 4
1 1 1 6 4 5
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6

```

```

S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #2641
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 2
1 1 2 2 2 1
has #53 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6

```

S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6

S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #2642
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6

```

S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6


```

S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2643
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 2
1 1 2 2 2 3

```

has #27 resonances.

Resonance #1

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 6

Resonance #3

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #4

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #5

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #6

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #9

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #10

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #12

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #13

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #14

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #15

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #16

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #17

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #18

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #19

S0: 1 2 3 4 5

```

S1: 1 2 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2644
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 2 1
1 1 2 2 1 1
has #53 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6

```

S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 5
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6

S1: 1 2 3 4 6
 Resonance #47
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #48
 S0: 1 2 3 4 6
 S1: 1 2 4 5 6
 Resonance #49
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #50
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #51
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #52
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #53
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #2645

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 1 2
 1 1 1 1 2 1
 1 1 2 2 1 2

has #53 resonances.

Resonance #1
 S0: 1 2
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 5
 S1: 1 3 4 6
 Resonance #3
 S0: 1 2 6
 S1: 1 2 3 4 5
 Resonance #4
 S0: 1 2 5
 S1: 1 2 3 4 6
 Resonance #5
 S0: 1 2 4
 S1: 1 2 3 5 6
 Resonance #6
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #7
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #8
 S0: 1 2 4 6
 S1: 1 2 3 5
 Resonance #9
 S0: 1 2 3 6

S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 5
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6

S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6


```

S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2646
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 2 1
1 1 2 2 1 3
has #27 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 6

```

```

S1: 1 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2650
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2

```

1 1 1 1 1 2
1 1 1 1 2 2
1 1 2 2 2 1
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5

S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2651
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5

S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #2652

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 2 2
1 1 2 2 2 3

```

has #26 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6

```


S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #2653

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 2 3
1 1 2 2 3 5

```

has #11 resonances.

Resonance #1

```

S0: 1 2 5
S1: 1 3 4 6

```

Resonance #2

```

S0: 1 2 5
S1: 1 2 3 4 6

```

Resonance #3

```

S0: 1 2 4 5
S1: 1 2 3 6

```

Resonance #4

```

S0: 1 2 4 5
S1: 1 2 3 4 6

```

Resonance #5

```

S0: 1 2 3 5
S1: 1 2 3 4 6

```

Resonance #6

```

S0: 1 2 3 5 6
S1: 1 2 4

```

Resonance #7

```

S0: 1 2 3 5 6
S1: 1 2 3 4

```

Resonance #8

```

S0: 1 2 3 4 5
S1: 1 2 3 6

```

Resonance #9

```

S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

Resonance #10

```

S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

Resonance #11

```

S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #2654

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 5 1
1 1 2 2 1 1

```

has #37 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 5

S1: 1 3 4 6

Resonance #3

S0: 1 5 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 5

S1: 1 3 4 5 6

Resonance #5

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #6

S0: 1 3 4 5

S1: 1 2 6

Resonance #7

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #8

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #9

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #10

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #11

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #12

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #13

S0: 1 2 4 5

S1: 1 2 3 5 6

Resonance #14

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #15

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #16

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #17

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #18

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #19

S0: 1 2 3 4 5

```

S1: 1 2 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #35
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2655

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 5 1
1 1 2 2 1 2
has #33 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6

```

S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2656
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 5 1
1 1 2 2 1 3

```

has #17 resonances.

Resonance #1

S0: 1 3 4 5

S1: 1 2 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #3

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #4

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #5

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #8

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #11

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #13

S0: 1 2 3 5 6

S1: 1 2 3 4 6

Resonance #14

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #15

S0: 1 2 3 4 5

S1: 1 2 4 5 6

Resonance #16

S0: 1 2 3 4 5

S1: 1 2 3 5 6

Resonance #17

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #2657

1 1 1 1 1 1

1 1 1 1 1 1

1 1 1 1 1 2

1 1 1 1 1 2
1 1 1 1 5 5
1 1 2 2 5 5
has #21 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6


```

S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #2735

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 1
1 1 2 1 1 1

```

has #57 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 6
S1: 1 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 3 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 4 6

```

S1: 1 2 3 5
Resonance #14
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #17
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #18
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #32
S0: 1 2 3 4 6

S1: 1 2 5
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #42
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #43
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #44
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #45
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #46
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #47
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #51
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #55
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #56
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #57
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2736
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 1
1 1 2 1 1 2
has #53 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6

```

S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5

S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6

```

S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2737

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 1
1 1 2 1 1 3

```

has #29 resonances.

```

Resonance #1
S0: 1 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4

```

```

S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2744

```


1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 2
1 1 2 1 2 1
has #53 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6

S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6

```

S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2745
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2

```

1 1 1 1 2 1
1 1 1 2 1 2
1 1 2 1 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5

S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2746
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 2
1 1 2 1 2 3
has #27 resonances.
Resonance #1
S0: 1 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 3

```

S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2753
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 1 3
1 1 2 1 3 4
has #15 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4

```



```

S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2754

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 2 1
1 1 2 1 1 2

```

has #53 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5

```

S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2755
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 2 1
1 1 2 1 1 3
has #27 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6

```

```

S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2764
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 2 2
1 1 2 1 2 2
has #51 resonances.
Resonance #1
S0: 1 2

```

S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5

S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5

```

S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2765

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 2 2
1 1 2 1 2 3

```

has #26 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4

```


S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6

```

S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2772

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 2 3
1 1 2 1 3 4

```

has #13 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6

The semigroup #2773

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 3 4
1 1 2 1 4 3

has #14 resonances.

Resonance #1

S0: 1 3 5

S1: 1 2 4 6

Resonance #2

S0: 1 3 4

S1: 1 2 5 6

Resonance #3

S0: 1 2 3 6

S1: 1 4 5

Resonance #4

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #5

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #6

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #7

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #8

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #9

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #10

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #11

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #13

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #14

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #2774

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2

```

1 1 1 1 2 1
1 1 1 2 4 1
1 1 2 1 1 3
has #14 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2776
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 1
1 1 1 2 4 2
1 1 2 1 2 3
has #13 resonances.
Resonance #1
S0: 1 2 3 4

```

```

S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2815

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 2 2 1

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4

```

S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4

S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2816

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 2 2 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6

```


S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6

S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2817
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 2 2 3
has #26 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2818
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 1 3
1 1 2 2 3 4

```

has #13 resonances.

Resonance #1

S0: 1 3 4

S1: 1 2 5 6

Resonance #2

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #3

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #4

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #5

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #6

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #7

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #11

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 3 5 6

Resonance #13

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #2819

1 1 1 1 1 1

1 1 1 1 1 1

1 1 1 1 1 2

1 1 1 1 2 2

1 1 1 2 2 1

1 1 2 2 1 1

has #51 resonances.

Resonance #1

S0: 1 2

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 5

S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4

S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6

```

S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2820

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 1
1 1 2 2 1 2

```

has #51 resonances.

Resonance #1

```

S0: 1 2
S1: 1 3 4 5 6

```

Resonance #2

```

S0: 1 2 6
S1: 1 2 3 4 5

```

Resonance #3

```

S0: 1 2 5
S1: 1 2 3 4 6

```

Resonance #4

```

S0: 1 2 4
S1: 1 2 3 5 6

```

Resonance #5

```

S0: 1 2 3
S1: 1 2 4 5 6

```

Resonance #6

```

S0: 1 2 5 6

```


S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

The semigroup #2821

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 1
1 1 2 2 1 3

```

has #26 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2825
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2

```

1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 2 1
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5

S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2826
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5

S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #2827

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 2 3

```

has #26 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6

```

S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2828

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 2 3
1 1 2 2 3 4

```

has #12 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2829

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2

```

```

1 1 1 1 2 2
1 1 1 2 3 4
1 1 2 2 4 4
has #9 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2830
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 2
1 1 1 2 4 4
1 1 2 2 4 4
has #17 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4

```

```

S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #2884

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 2 3
1 1 2 3 3 5

```

has #8 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5

```

S1: 1 2 3 6
 Resonance #6
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #8
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #2885

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 2 3
 1 1 1 2 3 4
 1 1 2 3 4 5

has #4 resonances.

Resonance #1

S0: 1 3 5
 S1: 1 2 4 6

Resonance #2

S0: 1 2 3 5
 S1: 1 2 4 6

Resonance #3

S0: 1 2 3 5
 S1: 1 2 3 4 6

Resonance #4

S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #2886

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 4 1
 1 1 1 4 5 1
 1 1 2 1 1 1

has #34 resonances.

Resonance #1

S0: 1 5 6
 S1: 1 2 3 4

Resonance #2

S0: 1 3 5
 S1: 1 2 4 6

Resonance #3

S0: 1 2 5
 S1: 1 3 4 6

Resonance #4

S0: 1 2 5
 S1: 1 2 3 4 6

Resonance #5

S0: 1 4 5 6
 S1: 1 2 3

Resonance #6

S0: 1 3 4 5

S1: 1 2 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 6
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #14
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 4
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6


```

S1: 1 2 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #34
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2887

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 4 1
1 1 1 4 5 1
1 1 2 1 1 2

```

has #26 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5

```

S1: 1 2 4 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #2888
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 4 1
1 1 1 4 5 1
1 1 2 1 1 3
has #15 resonances.
Resonance #1
S0: 1 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2889

```

```
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 4 1
1 1 1 4 5 4
1 1 2 1 4 1
has #20 resonances.
Resonance #1
S0: 1 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #9
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #17
S0: 1 2 4 5 6
```

S1: 1 2 3 4 6
 Resonance #18
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #19
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #20
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #2890

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 4 1
 1 1 1 4 5 4
 1 1 2 1 4 2

has #14 resonances.

Resonance #1
 S0: 1 2 5
 S1: 1 3 4 6
 Resonance #2
 S0: 1 2 5
 S1: 1 2 3 4 6
 Resonance #3
 S0: 1 2 4 5
 S1: 1 3 4 6
 Resonance #4
 S0: 1 2 3 5
 S1: 1 2 4 6
 Resonance #5
 S0: 1 2 4 5
 S1: 1 3 4 5 6
 Resonance #6
 S0: 1 2 4 5
 S1: 1 2 3 4 6
 Resonance #7
 S0: 1 2 3 5
 S1: 1 2 3 4 6
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #10
 S0: 1 2 3 4 5
 S1: 1 2 4 6
 Resonance #11
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #13
 S0: 1 2 3 4 5

S1: 1 2 4 5 6
 Resonance #14
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #2891

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 4 1
 1 1 1 4 5 4
 1 1 2 1 4 3

has #8 resonances.

Resonance #1

S0: 1 3 5
 S1: 1 2 4 6

Resonance #2

S0: 1 3 4 5
 S1: 1 2 4 6

Resonance #3

S0: 1 2 3 5
 S1: 1 2 4 6

Resonance #4

S0: 1 3 4 5
 S1: 1 2 4 5 6

Resonance #5

S0: 1 2 3 5
 S1: 1 2 3 4 6

Resonance #6

S0: 1 2 3 4 5
 S1: 1 2 4 6

Resonance #7

S0: 1 2 3 4 5
 S1: 1 2 4 5 6

Resonance #8

S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #2898

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 4 4
 1 1 1 4 5 5
 1 1 2 4 5 5

has #14 resonances.

Resonance #1

S0: 1 5 6
 S1: 1 2 3 4

Resonance #2

S0: 1 4 5 6
 S1: 1 2 3

Resonance #3

S0: 1 4 5 6
 S1: 1 2 3 4

Resonance #4

S0: 1 2 5 6

```

S1: 1 2 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #2901
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 2 1
1 1 2 1 1 1
has #57 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 4
S1: 1 3 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4

```

S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 3 6
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #13
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #15
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #16
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 5

S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #42
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #43
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #44
S0: 1 2 3 4 5

```

S1: 1 2 4 6
Resonance #45
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #46
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #47
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #51
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #55
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #56
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #57
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2902

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 2 1
1 1 2 1 1 2

```

has #57 resonances.

Resonance #1

```

S0: 1 2
S1: 1 3 4 5 6

```

Resonance #2

```

S0: 1 2 5
S1: 1 3 4 6

```

Resonance #3

```

S0: 1 2 4

```

S1: 1 3 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 3 6
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #13
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #15
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #16
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 4 5

S1: 1 2 3 5 6
Resonance #23
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 6

```

S1: 1 2 4 5
Resonance #42
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #43
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #44
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #45
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #46
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #47
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #51
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #55
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #56
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #57
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2903
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 2 1
1 1 2 1 1 3

```

has #29 resonances.

Resonance #1

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #2

S0: 1 2 3 6

S1: 1 4 5

Resonance #3

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #4

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #5

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #6

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #9

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #10

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #11

S0: 1 2 3 5 6

S1: 1 4

Resonance #12

S0: 1 2 3 4 6

S1: 1 5

Resonance #13

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #14

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #15

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #16

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #17

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #18

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #19

S0: 1 2 3 4 6

```

S1: 1 2 3 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2910

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 2 2
1 1 2 1 2 1

```

has #53 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3

```

S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 5 6

S1: 1 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2911

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 2 2
1 1 2 1 2 2

```

has #53 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6

```

S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 4
Resonance #26
S0: 1 2 4 5 6

S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6

```

S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #2912

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 2 2
1 1 2 1 2 3

```

has #27 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4

```

S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #2919

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 2 3
1 1 2 1 3 5

has #13 resonances.

Resonance #1

S0: 1 2 5

S1: 1 3 4 6

Resonance #2

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 2 4 5

S1: 1 3 6

Resonance #4

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #5

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #6

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #7

S0: 1 2 3 5 6

S1: 1 4

Resonance #8

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 3 5 6

Resonance #13

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #2921

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 5 1
1 1 2 1 1 1

has #37 resonances.

Resonance #1

S0: 1 2 5

S1: 1 3 4 6

Resonance #2

S0: 1 2 5

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #4

S0: 1 2 4 5

S1: 1 3 6

Resonance #5

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 4 5

S1: 1 3 5 6

Resonance #7

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #8

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #9

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #10

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #11

S0: 1 2 4 5

S1: 1 2 3 5 6

Resonance #12

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #13

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #14

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #15

S0: 1 2 3 5 6

S1: 1 4

Resonance #16

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #17

S0: 1 2 3 5 6

S1: 1 4 5

Resonance #18

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #19

S0: 1 2 3 4 5


```

S1: 1 2 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #35
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2922

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 5 1
1 1 2 1 1 2
has #37 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #17
S0: 1 2 3 5 6

S1: 1 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #35
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #36
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2923
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 5 1
1 1 2 1 1 3
has #17 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5

```

```

S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #2927
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 1
1 1 1 1 5 5
1 1 2 1 5 5
has #21 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

```

*****

```

The semigroup #3042

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 2
1 1 1 1 2 2
1 1 2 2 2 1

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5

```

S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6


```

S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3043
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 2
1 1 1 1 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6

```

S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6

S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3044
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 2
1 1 1 1 2 2
1 1 2 2 2 3
has #26 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #3045

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 2
1 1 1 1 2 3
1 1 2 2 3 5

```

has #11 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 5

```

```

S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3046
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 2
1 1 1 1 5 1
1 1 2 2 1 1
has #33 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5

```

S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3047
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 2
1 1 1 1 5 1
1 1 2 2 1 2
has #33 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5

```


S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3048
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 2
1 1 1 1 5 1
1 1 2 2 1 3
has #15 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5

```

```

S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3049
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 2
1 1 1 1 5 5
1 1 2 2 5 5
has #18 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 5 6

```

```

S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #3143

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 1 3
1 1 1 1 5 1
1 1 2 3 1 4

```

has #7 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #3145

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 1
1 1 1 2 2 1
1 1 2 1 1 1

```

has #53 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5

```

S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5

S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5

```

S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #3146

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 1
1 1 1 2 2 1
1 1 2 1 1 2

```

has #53 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4

```

S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5

S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #3147

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 1
1 1 1 2 2 1
1 1 2 1 1 3

```

has #27 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4

```

S1: 1 2 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 6

S1: 1 2 3 4 5
 Resonance #25
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #26
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #27
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #3154

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 2 2 1
 1 1 1 2 2 2
 1 1 2 1 2 1

has #51 resonances.

Resonance #1
 S0: 1 2
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 6
 S1: 1 2 3 4 5
 Resonance #3
 S0: 1 2 5
 S1: 1 2 3 4 6
 Resonance #4
 S0: 1 2 4
 S1: 1 2 3 5 6
 Resonance #5
 S0: 1 2 3
 S1: 1 2 4 5 6
 Resonance #6
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #7
 S0: 1 2 4 6
 S1: 1 2 3 5
 Resonance #8
 S0: 1 2 3 6
 S1: 1 2 4 5
 Resonance #9
 S0: 1 2 4 5
 S1: 1 2 3 6
 Resonance #10
 S0: 1 2 3 5
 S1: 1 2 4 6
 Resonance #11
 S0: 1 2 3 4
 S1: 1 2 5 6
 Resonance #12
 S0: 1 2 5 6
 S1: 1 2 3 4 6
 Resonance #13
 S0: 1 2 5 6

S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6

S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #3155
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 1
1 1 1 2 2 2
1 1 2 1 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6

```

S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6


```

S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3156
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 1
1 1 1 2 2 2
1 1 2 1 2 3

```

has #26 resonances.

Resonance #1

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #2

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #3

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #4

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #5

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #6

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #7

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #8

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #9

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #10

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #11

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #13

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #14

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #15

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #16

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #17

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #18

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #19

S0: 1 2 3 4 5

```

S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

```

The semigroup #3243

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 2
1 1 1 2 2 2
1 1 2 2 2 1

```

```

has #51 resonances.

```

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5

```

S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3244
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 2
1 1 1 2 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6

```

S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6

S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5


```

S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3245
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 2
1 1 1 2 2 2
1 1 2 2 2 3
has #26 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****
The semigroup #3314

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 3
1 1 1 2 2 3
1 1 2 3 3 4
has #8 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 5

```

S1: 1 2 3 6
 Resonance #6
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #8
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #3315

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 4 1 1
 1 1 1 1 5 1
 1 1 2 1 1 1

has #29 resonances.

Resonance #1
 S0: 1 4 5 6
 S1: 1 2 3
 Resonance #2
 S0: 1 3 4 5
 S1: 1 2 6
 Resonance #3
 S0: 1 2 4 5
 S1: 1 3 6
 Resonance #4
 S0: 1 4 5 6
 S1: 1 2 3 5
 Resonance #5
 S0: 1 4 5 6
 S1: 1 2 3 4
 Resonance #6
 S0: 1 3 4 5
 S1: 1 2 5 6
 Resonance #7
 S0: 1 3 4 5
 S1: 1 2 4 6
 Resonance #8
 S0: 1 2 4 5
 S1: 1 3 5 6
 Resonance #9
 S0: 1 2 4 5
 S1: 1 3 4 6
 Resonance #10
 S0: 1 2 4 5
 S1: 1 2 3 6
 Resonance #11
 S0: 1 4 5 6
 S1: 1 2 3 4 5
 Resonance #12
 S0: 1 3 4 5
 S1: 1 2 4 5 6
 Resonance #13
 S0: 1 2 4 5

```

S1: 1 3 4 5 6
Resonance #14
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3316
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 1 1
1 1 1 1 5 1
1 1 2 1 1 2

```

has #21 resonances.

Resonance #1

S0: 1 2 4 5

S1: 1 3 6

Resonance #2

S0: 1 2 4 5

S1: 1 3 5 6

Resonance #3

S0: 1 2 4 5

S1: 1 3 4 6

Resonance #4

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #5

S0: 1 2 4 5

S1: 1 3 4 5 6

Resonance #6

S0: 1 2 4 5

S1: 1 2 3 5 6

Resonance #7

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #10

S0: 1 2 4 5 6

S1: 1 2 3 6

Resonance #11

S0: 1 2 4 5 6

S1: 1 2 3 5

Resonance #12

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #13

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #14

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #15

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #16

S0: 1 2 4 5 6

S1: 1 2 3 5 6

Resonance #17

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #18

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #19

S0: 1 2 3 4 5

S1: 1 2 4 5 6
 Resonance #20
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #21
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #3317

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 4 1 1
 1 1 1 1 5 1
 1 1 2 1 1 3

has #11 resonances.

Resonance #1

S0: 1 3 4 5
 S1: 1 2 6

Resonance #2

S0: 1 3 4 5
 S1: 1 2 5 6

Resonance #3

S0: 1 3 4 5
 S1: 1 2 4 6

Resonance #4

S0: 1 3 4 5
 S1: 1 2 4 5 6

Resonance #5

S0: 1 2 3 4 5
 S1: 1 2 6

Resonance #6

S0: 1 2 3 4 5
 S1: 1 2 5 6

Resonance #7

S0: 1 2 3 4 5
 S1: 1 2 4 6

Resonance #8

S0: 1 2 3 4 5
 S1: 1 2 3 6

Resonance #9

S0: 1 2 3 4 5
 S1: 1 2 4 5 6

Resonance #10

S0: 1 2 3 4 5
 S1: 1 2 3 5 6

Resonance #11

S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #3318

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 4 1 1
 1 1 1 1 5 5
 1 1 2 1 5 5

has #17 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 5

Resonance #3

S0: 1 4 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #5

S0: 1 2 4 5

S1: 1 3 5 6

Resonance #6

S0: 1 4 5 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 3 4 5

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 4 5

S1: 1 3 4 5 6

Resonance #9

S0: 1 2 4 5

S1: 1 2 3 5 6

Resonance #10

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #11

S0: 1 2 4 5 6

S1: 1 2 3 5

Resonance #12

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #13

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #14

S0: 1 2 4 5 6

S1: 1 2 3 5 6

Resonance #15

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #16

S0: 1 2 3 4 5

S1: 1 2 4 5 6

Resonance #17

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #3358

1 1 1 1 1 1

1 1 1 1 1 1

1 1 1 1 1 2

1 1 1 4 4 1
1 1 1 4 4 1
1 1 2 1 1 1
has #30 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 2 4 5
S1: 1 3 6
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 2 3 4 6


```

S1: 1 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #3359

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 4 1
1 1 2 1 1 2

```

has #22 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 4 5

```

```

S1: 1 2 3 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3360

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 4 1
1 1 2 1 1 3
has #13 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3364
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 4 2
1 1 2 1 2 1
has #21 resonances.
Resonance #1
S0: 1 4 6

```

S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3365
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 4 2
1 1 2 1 2 2
has #18 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #3366

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 4 2
1 1 2 1 2 3
has #10 resonances.

```

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #3367

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 5 1
1 1 2 1 1 1

```

has #21 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 3 4 5

S1: 1 2 6

Resonance #3

S0: 1 2 4 5

S1: 1 3 6

Resonance #4

S0: 1 4 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 3 4 5

S1: 1 2 4 6

Resonance #6

S0: 1 2 4 5

S1: 1 3 4 6

Resonance #7

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #8

S0: 1 4 5 6

S1: 1 2 3 4 5

Resonance #9

S0: 1 3 4 5

S1: 1 2 4 5 6

Resonance #10

S0: 1 2 4 5

S1: 1 3 4 5 6

Resonance #11

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #12

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #13

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #14

S0: 1 2 4 5 6

S1: 1 2 3 6

Resonance #15

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #16

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #17

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #18

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #19

S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3368
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 5 1
1 1 2 1 1 2
has #15 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5

```



```

S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #3369

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 5 1
1 1 2 1 1 3

```

has #8 resonances.

Resonance #1

S0: 1 3 4 5

S1: 1 2 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 4 6

Resonance #3

S0: 1 3 4 5

S1: 1 2 4 5 6

Resonance #4

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #5

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #3381

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 4

```

has #24 resonances.

Resonance #1

S0: 1 4 6

S1: 1 2 3 4 5

Resonance #2

S0: 1 3 4

S1: 1 2 4 5 6

Resonance #3

S0: 1 2 4

S1: 1 3 4 5 6

Resonance #4

S0: 1 4 5 6

S1: 1 2 3
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3382
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 5
has #14 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3383

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 4 4
1 1 1 4 5 4
1 1 2 4 4 4
has #15 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #3384
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2

```

```

1 1 1 4 4 4
1 1 1 4 5 5
1 1 2 4 5 5
has #9 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #3390
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 5 1
1 1 1 5 4 1
1 1 2 1 1 1
has #26 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 4
S1: 1 3 5 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5

```

S1: 1 2 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #11
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #3391
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 5 1
1 1 1 5 4 1
1 1 2 1 1 2
has #20 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #15
S0: 1 2 3 4 6

```

```

S1: 1 2 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #3392

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 5 1
1 1 1 5 4 1
1 1 2 1 1 3

```

has #12 resonances.

```

Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 4 6

```



```

S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #3397

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 5 4
1 1 1 5 4 5
1 1 2 4 5 4

```

has #12 resonances.

Resonance #1

S0: 1 4 6

S1: 1 2 3 5

Resonance #2

S0: 1 4 5 6

S1: 1 2 3

Resonance #3

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #4

S0: 1 4 5 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 3 4 5

S1: 1 2 4 5 6

Resonance #6

S0: 1 2 4 5

S1: 1 3 4 5 6

Resonance #7

S0: 1 2 3 4 6

S1: 1 5

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #11

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 4 5 6

The semigroup #3400

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 4 5 5
1 1 1 5 4 4
1 1 2 5 4 4

```

has #12 resonances.

Resonance #1

S0: 1 3 4

S1: 1 2 5 6

Resonance #2

S0: 1 2 4

S1: 1 3 5 6

Resonance #3

S0: 1 2 4

S1: 1 2 3 5 6

Resonance #4

S0: 1 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #6

S0: 1 4 5 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 3 4 5

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 4 5

S1: 1 3 4 5 6

Resonance #9

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #10

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #11

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 4 5 6

The semigroup #3704

1 1 1 1 1 1

1 1 1 1 1 1

1 1 1 1 1 3

1 1 1 1 1 3

1 1 1 1 1 3

1 1 3 3 3 6

has #35 resonances.

Resonance #1

S0: 1 6

S1: 1 2 3 4 5

Resonance #2

S0: 1 2 6

S1: 1 3 4 5

Resonance #3

S0: 1 3 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 6

S1: 1 2 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #23
S0: 1 2 3 5 6

```

S1: 1 2 3 4
Resonance #24
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #3713

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 3
1 1 1 1 1 5
1 1 3 3 5 6

```

has #35 resonances.

```

Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 6
S1: 1 3 4 5
Resonance #4
S0: 1 5 6

```

S1: 1 2 3 4 5
Resonance #5
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 5 6
S1: 1 3 4
Resonance #8
S0: 1 3 4 6
S1: 1 2 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #14
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2
Resonance #19
S0: 1 2 3 4 6
S1: 1 5
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #22
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #23
S0: 1 2 3 4 6

```

S1: 1 3 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #27
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #31
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #32
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #3724

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 3
1 1 1 1 2 1
1 1 3 3 1 6

```

has #22 resonances.

Resonance #1

S0: 1 2 6

S1: 1 3 4 5

Resonance #2

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 5 6

S1: 1 3 4

Resonance #4

S0: 1 2 5 6

```

S1: 1 2 3 4
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3726

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 3
1 1 1 1 2 3
1 1 3 3 3 6
has #17 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 6


```

S1: 1 2 3 4 5
*****
The semigroup #3729
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 3
1 1 1 1 3 5
1 1 3 3 5 6
has #25 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 3 4 6
S1: 1 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #3733

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 3
1 1 1 1 5 1
1 1 3 3 1 6

```

has #25 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 5 6

```

```

S1: 1 2 3 4 6
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #3738

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 3
1 1 1 1 5 5
1 1 3 3 5 6
has #20 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 3 4 5 6

S1: 1 2 3 5 6
 Resonance #18
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5
 Resonance #19
 S0: 1 2 3 5 6
 S1: 1 3 4 5 6
 Resonance #20
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5

The semigroup #3796

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 3
 1 1 1 1 1 4
 1 1 1 1 1 5
 1 1 3 4 5 6

has #65 resonances.

Resonance #1
 S0: 1 6
 S1: 1 2 3 4 5
 Resonance #2
 S0: 1 5 6
 S1: 1 2 3 4
 Resonance #3
 S0: 1 4 6
 S1: 1 2 3 5
 Resonance #4
 S0: 1 3 6
 S1: 1 2 4 5
 Resonance #5
 S0: 1 2 6
 S1: 1 3 4 5
 Resonance #6
 S0: 1 5 6
 S1: 1 2 3 4 5
 Resonance #7
 S0: 1 4 6
 S1: 1 2 3 4 5
 Resonance #8
 S0: 1 3 6
 S1: 1 2 3 4 5
 Resonance #9
 S0: 1 2 6
 S1: 1 2 3 4 5
 Resonance #10
 S0: 1 4 5 6
 S1: 1 2 3
 Resonance #11
 S0: 1 3 5 6
 S1: 1 2 4
 Resonance #12
 S0: 1 2 5 6
 S1: 1 3 4
 Resonance #13
 S0: 1 3 4 6

S1: 1 2 5
Resonance #14
S0: 1 2 4 6
S1: 1 3 5
Resonance #15
S0: 1 2 3 6
S1: 1 4 5
Resonance #16
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #17
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #25
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #26
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #27
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #28
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 4 6

S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #34
S0: 1 3 4 5 6
S1: 1 2
Resonance #35
S0: 1 2 4 5 6
S1: 1 3
Resonance #36
S0: 1 2 3 5 6
S1: 1 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 5
Resonance #38
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #39
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #41
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #42
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #44
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #47
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #50
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #51
S0: 1 3 4 5 6

```

S1: 1 2 3 5
Resonance #52
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #53
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #54
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #55
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #56
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #57
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #58
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #59
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #60
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #61
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #62
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #63
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #64
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #65
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3801
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 4
1 1 1 1 2 1
1 1 3 4 1 6
has #34 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6

```


S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #19
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #21
S0: 1 2 3 4 6

```

S1: 1 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #3802

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 4
1 1 1 1 2 3
1 1 3 4 3 6

```

has #18 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 6

```

```

S1: 1 3 5
Resonance #4
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #3803

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 4
1 1 1 1 3 5
1 1 3 4 5 6

```

has #33 resonances.

```

Resonance #1
S0: 1 3 6

```

S1: 1 2 4 5
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2
Resonance #15
S0: 1 2 3 5 6
S1: 1 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #19
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #20
S0: 1 2 3 5 6

```

S1: 1 2 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #31
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3807
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 1 4
1 1 1 1 5 1
1 1 3 4 1 6
has #39 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6

```

S1: 1 2 3
Resonance #4
S0: 1 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2
Resonance #16
S0: 1 2 4 5 6
S1: 1 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #22
S0: 1 2 4 5 6

```

S1: 1 3 4
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #37
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #3811
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3

```

1 1 1 1 1 4
1 1 1 1 5 5
1 1 3 4 5 6
has #38 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2
Resonance #16
S0: 1 2 4 5 6
S1: 1 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 4
Resonance #18
S0: 1 3 4 5 6

S1: 1 2 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #37
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #3885
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 2 3
1 1 1 2 1 3
1 1 3 3 3 6
has #15 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6

```

S1: 1 2 3 4 5

The semigroup #3886

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 2 3
1 1 1 2 2 1
1 1 3 3 1 6

has #14 resonances.

Resonance #1

S0: 1 2 6

S1: 1 3 4 5

Resonance #2

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 2 3 6

S1: 1 3 4 5

Resonance #5

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #6

S0: 1 2 3 6

S1: 1 3 4 5 6

Resonance #7

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 3 4 6

Resonance #12

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #13

S0: 1 2 3 4 6

S1: 1 2 3 5 6

Resonance #14

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #3887

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3

```

1 1 1 1 2 3
1 1 1 2 2 3
1 1 3 3 3 6
has #11 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3893
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 3 4
1 1 1 3 1 5
1 1 3 4 5 6
has #29 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 6

```

S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5 6
S1: 1 3 4
Resonance #6
S0: 1 2 4 6
S1: 1 3 5
Resonance #7
S0: 1 2 3 6
S1: 1 4 5
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #14
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #19
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6

```

S1: 1 3 4 5
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3895
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 3 4
1 1 1 3 3 5
1 1 3 4 5 6
has #23 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #3897

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 3 4
1 1 1 3 4 5
1 1 3 4 5 6

```

has #13 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 4 6
S1: 1 3 5
Resonance #3
S0: 1 3 4 6

```

```

S1: 1 2 3 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #3901

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 4 1
1 1 1 4 5 1
1 1 3 1 1 6

```

has #29 resonances.

Resonance #1

```

S0: 1 5 6
S1: 1 2 3 4

```

Resonance #2

```

S0: 1 4 5 6
S1: 1 2 3

```

Resonance #3

```

S0: 1 3 5 6
S1: 1 2 4

```

Resonance #4

```

S0: 1 2 5 6
S1: 1 3 4

```

Resonance #5

```

S0: 1 4 5 6
S1: 1 2 3 4

```

Resonance #6

```

S0: 1 3 5 6

```


S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2
Resonance #11
S0: 1 2 4 5 6
S1: 1 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #24
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #25
S0: 1 2 3 5 6

```

S1: 1 2 3 4
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #3916
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 1 4 4
1 1 1 4 5 5
1 1 3 4 5 6
has #24 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 3 5 6
S1: 1 4
Resonance #12
S0: 1 3 4 5 6

```

```

S1: 1 2 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #3931

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 1 1
1 1 1 1 2 1
1 1 3 1 1 6

```

has #34 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 6

```

S1: 1 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 4 5 6

S1: 1 2 3 4
 Resonance #24
 S0: 1 2 3 5 6
 S1: 1 3 4 6
 Resonance #25
 S0: 1 2 3 5 6
 S1: 1 2 4 5
 Resonance #26
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #27
 S0: 1 2 3 4 6
 S1: 1 3 5 6
 Resonance #28
 S0: 1 2 3 4 6
 S1: 1 2 4 5
 Resonance #29
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #30
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #31
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #32
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #33
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #34
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #3932

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 1 1 1 3
 1 1 1 2 1 1
 1 1 1 1 2 3
 1 1 3 1 3 6

has #20 resonances.

Resonance #1

S0: 1 2 6
 S1: 1 3 4 5

Resonance #2

S0: 1 2 6
 S1: 1 2 3 4 5

Resonance #3

S0: 1 2 4 6
 S1: 1 3 5

Resonance #4

S0: 1 2 4 6
 S1: 1 2 3 5

Resonance #5

S0: 1 2 3 6

```

S1: 1 3 4 5
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #3933

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 1 1
1 1 1 1 3 5
1 1 3 1 5 6

```

has #17 resonances.

```

Resonance #1
S0: 1 2 3 6

```

```

S1: 1 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3934
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 1 1
1 1 1 1 5 1
1 1 3 1 1 6

```

has #21 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 3 4 5

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 4 5 6

S1: 1 3

Resonance #6

S0: 1 2 3 5 6

S1: 1 4

Resonance #7

S0: 1 2 4 5 6

S1: 1 3 5

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #9

S0: 1 2 3 5 6

S1: 1 4 5

Resonance #10

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #12

S0: 1 2 4 5 6

S1: 1 2 3 5

Resonance #13

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #14

S0: 1 2 3 5 6

S1: 1 3 4 6

Resonance #15

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #16

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #17

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #18

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #19

S0: 1 2 3 5 6


```

S1: 1 3 4 5 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #3935
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 1 1
1 1 1 1 5 5
1 1 3 1 5 6
has #19 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6

```

```

S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #3946

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 1 3
1 1 1 1 2 3
1 1 3 3 3 6

```

has #15 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #11
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3947
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 1 3
1 1 1 1 3 5
1 1 3 3 5 6
has #12 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6

```

S1: 1 2 3 4 5

The semigroup #3948

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 1 3
1 1 1 1 5 1
1 1 3 3 1 6

has #11 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 3 4 5

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #6

S0: 1 2 3 5 6

S1: 1 3 4 6

Resonance #7

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #8

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #9

S0: 1 2 3 5 6

S1: 1 3 4 5 6

Resonance #10

S0: 1 2 3 5 6

S1: 1 2 3 4 6

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #3949

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 1 3
1 1 1 1 5 5
1 1 3 3 5 6

has #9 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 5 6

```

S1: 1 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

```

*****

```

The semigroup #3959

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 2 1
1 1 1 2 2 1
1 1 3 1 1 6

```

has #26 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 6

```

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3960
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3

```

```

1 1 1 2 2 1
1 1 1 2 2 3
1 1 3 1 3 6
has #14 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3961
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 2 2 3
1 1 1 2 2 3
1 1 3 3 3 6
has #11 resonances.
Resonance #1
S0: 1 2 6

```

```

S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #3962

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 3 1 4
1 1 1 1 3 5
1 1 3 4 5 6

```

has #29 resonances.

```

Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 3 5 6

```


S1: 1 2 3 4
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2
Resonance #14
S0: 1 2 3 5 6
S1: 1 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 4 6

```

S1: 1 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3964
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 3 1 4
1 1 1 1 5 1
1 1 3 4 1 6
has #19 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6

```

```

S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

```

*****

```

The semigroup #3966

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 3 1 4
1 1 1 1 5 5
1 1 3 4 5 6

```

has #18 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6

```

```

S1: 1 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #3976

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 3 3 4
1 1 1 3 3 4
1 1 3 4 4 6

```

has #15 resonances.

```

Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3980
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 3 3 4
1 1 1 3 3 5
1 1 3 4 5 6
has #23 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 5 6

```

```

S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #3983
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 1 1
1 1 1 1 5 1
1 1 3 1 1 6
has #23 resonances.
Resonance #1
S0: 1 4 5 6

```

S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 3 4 5 6

```

S1: 1 2 3 5 6
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #3986

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 1 1
1 1 1 1 5 5
1 1 3 1 5 6

```

has #21 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 3 4 5 6

```



```

S1: 1 2 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #4011

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 1 4
1 1 1 1 5 5
1 1 3 4 5 6

```

has #20 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6

```

```

S1: 1 2 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #4035

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 1 3 1 1 6

```

has #27 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6

```

S1: 1 2 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 3 4 5 6

```

S1: 1 2 3 4 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #4040
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 4 1
1 1 1 4 4 3
1 1 3 1 3 6
has #14 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #4043
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 4 1
1 1 1 4 5 1
1 1 3 1 1 6
has #17 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #14
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #4054

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 6

```

has #26 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6

```

```

S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #4060

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 4 4
1 1 1 4 4 5
1 1 3 4 5 6

```

has #24 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6

```

S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 3 4 5 6


```

S1: 1 2 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #4064
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 4 4
1 1 1 4 5 4
1 1 3 4 4 6
has #16 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #4067
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 4 4
1 1 1 4 5 5
1 1 3 4 5 6
has #15 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #4087
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 1 3 1 1 6
has #23 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 4 6
S1: 1 3 5
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 3 4 6
S1: 1 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #15
S0: 1 2 3 4 6

```

```

S1: 1 2 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #4096

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 3
1 1 1 4 5 4
1 1 1 5 4 5
1 1 3 4 5 6

```

has #19 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 4 6
S1: 1 3 5
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 4 6
S1: 1 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #4353
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 2 2 1 1
1 1 2 2 1 1
has #53 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5

```

S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4

S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6

```

S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4354

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 2 2 1 1
1 1 2 2 1 2

```

has #51 resonances.

Resonance #1

```

S0: 1 2
S1: 1 3 4 5 6

```

Resonance #2

```

S0: 1 2 6
S1: 1 2 3 4 5

```

Resonance #3

```

S0: 1 2 5
S1: 1 2 3 4 6

```

Resonance #4

```

S0: 1 2 4
S1: 1 2 3 5 6

```

Resonance #5

```

S0: 1 2 3
S1: 1 2 4 5 6

```

Resonance #6

```

S0: 1 2 5 6

```


S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

The semigroup #4357

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 2 2 1 2
1 1 2 2 2 1

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5

```

S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4358
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 2 2 1 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6

```

S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6

S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5


```

S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4359
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 2 2 2 1
1 1 2 2 1 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6

```

S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6

```

S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4361
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2

```

1 1 1 1 2 2
1 1 2 2 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5

S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #4362

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 3 3

```

has #17 resonances.

Resonance #1

```

S0: 1 3 4
S1: 1 2 5 6

```

Resonance #2

```

S0: 1 2 3

```

```

S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #4363

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 3 4

```

has #9 resonances.

```

Resonance #1
S0: 1 3 4

```

```

S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4366
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 2 2 3 4
1 1 2 2 4 3
has #12 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4

```



```

S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4367
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 1
1 1 2 1 1 2
1 1 2 1 2 1
has #53 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4

```

S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6

S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6

```

S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4368

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 1
1 1 2 1 1 2
1 1 2 1 2 2

```

has #53 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6

```

S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6

S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4371
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 1
1 1 2 1 2 1
1 1 2 1 1 2
has #53 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6

```

S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6

S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4375
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 1
1 1 2 1 2 2
1 1 2 1 2 2
has #53 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6

```

S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 4
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6

S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #4380
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 1
1 1 2 1 3 3
1 1 2 1 3 3
has #17 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5

```

```

S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4389
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 1 1 2
1 1 2 2 2 1
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6

```

S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6

```

S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4390
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2

```


1 1 1 2 1 2
1 1 2 1 1 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5

S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4391
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 1 2 1
1 1 2 2 1 1
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5

S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #4392

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 1 2 1
1 1 2 2 1 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3

```

S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6

S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6


```

S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4395

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 1 2 2
1 1 2 2 2 1

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6

```

S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5

S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6

```

S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4396

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 1 2 2
1 1 2 2 2 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4

```

S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6

S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4397
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 1 2
1 1 2 1 3 3
1 1 2 2 3 3
has #16 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4420
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 1 1
1 1 2 2 1 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6

```


S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6

```

S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4423

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 1 2
1 1 2 2 2 1
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6

S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6

```

S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #4424

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 1 2
1 1 2 2 2 2

```

has #51 resonances.

Resonance #1

S0: 1 2

S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5

S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5

```

S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4425

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 2 1
1 1 2 2 1 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4

```


S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4

S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4427

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 2 2
1 1 2 2 2 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6

```

S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6

S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4428
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 2 2
1 1 2 2 3 3
1 1 2 2 3 3
has #16 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5

```

```

S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #4429

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 3 4 4
1 1 2 3 4 4

```

has #5 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #4430

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 1 1
1 1 2 1 1 2
1 1 2 1 2 1

```

has #33 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 4

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 4 6


```

S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4431

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 1 1
1 1 2 1 1 2
1 1 2 1 2 2

```

has #33 resonances.

Resonance #1

S0: 1 2 4

S1: 1 3 5 6

Resonance #2

S0: 1 2 4

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 4

S1: 1 2 3 5 6

Resonance #4

S0: 1 2 4 6

S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5

```

S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4432

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 1 1
1 1 2 1 2 1
1 1 2 1 1 2

```

has #33 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4

```

S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4434
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 1 1
1 1 2 1 2 2
1 1 2 1 2 2
has #33 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 6

```

S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4435
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 1 1
1 1 2 1 3 3
1 1 2 1 3 3
has #11 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5

```

```

S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4436
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 1 4
1 1 2 1 1 2
1 1 2 4 2 4
has #18 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6

```



```

S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4437

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 1 4
1 1 2 1 2 1
1 1 2 4 1 4

```

has #18 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4439

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 1 4
1 1 2 1 2 2
1 1 2 4 2 4

```

has #18 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

The semigroup #4440

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 4 4 4
1 1 2 4 4 4
1 1 2 4 4 4

```

has #17 resonances.

```

Resonance #1
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4638

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 1 3 3
1 1 3 3 5 5
1 1 3 3 5 5

```

has #21 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #4639

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 1 3 3
1 1 3 3 5 5
1 1 3 3 5 6

```

has #16 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4
Resonance #3
S0: 1 3 5 6

```

```

S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #4644
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 1 3 3
1 1 3 3 5 6
1 1 3 3 6 5
has #20 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 5 6

```

```

S1: 1 3 4
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #8
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4671
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3

```

```

1 1 1 1 3 4
1 1 3 3 5 5
1 1 3 4 5 6
has #14 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #4687
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 1 4 4
1 1 3 4 5 5
1 1 3 4 5 5
has #21 resonances.
Resonance #1
S0: 1 5 6

```


S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 3 4 5 6

```

S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #4688
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 1 4 4
1 1 3 4 5 5
1 1 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 5 6

```

```

S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #4691
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 1 4 4
1 1 3 4 5 6
1 1 3 4 6 5
has #22 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 3 5 6

```

```

S1: 1 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4714
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 2 1 1
1 1 3 1 5 5
1 1 3 1 5 5
has #15 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 2 3 5 6

```

```

S1: 1 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #4715

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 2 1 1
1 1 3 1 5 5
1 1 3 1 5 6

```

has #12 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6

```

```

S1: 1 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #4718

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 2 1 1
1 1 3 1 5 6
1 1 3 1 6 5

```

has #15 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 5

```

```

S1: 1 3 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4719

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 2 1 2
1 1 3 1 5 5
1 1 3 2 5 5

```

has #9 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #4720

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3

```

```

1 1 1 2 3 3
1 1 3 3 5 5
1 1 3 3 5 5
has #10 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #4721
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 2 3 3
1 1 3 3 5 5
1 1 3 3 5 6
has #7 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 5 6

```



```

S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #4723

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 2 3 3
1 1 3 3 5 6
1 1 3 3 6 5

```

has #10 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #4724

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 3 4 4
1 1 3 4 5 5
1 1 3 4 5 5

```

has #11 resonances.

```

Resonance #1
S0: 1 3 5 6

```

```

S1: 1 2 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****

```

The semigroup #4725

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 3 4 4
1 1 3 4 5 5
1 1 3 4 5 6

```

has #10 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6

```

```

S1: 1 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #4728
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 3 4 4
1 1 3 4 5 6
1 1 3 4 6 5
has #12 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 3 5 6
S1: 1 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #12
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #4735
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 4 1 1
1 1 3 1 5 5
1 1 3 1 5 5
has #17 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5

```

```

S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #4736

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 4 1 1
1 1 3 1 5 5
1 1 3 1 5 6

```

has #13 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #4739

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3

```

```

1 1 1 4 1 1
1 1 3 1 5 6
1 1 3 1 6 5
has #17 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4751

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 4 1 4
1 1 3 1 5 5
1 1 3 4 5 6
has #12 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #4757
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 4 4 4
1 1 3 4 5 5
1 1 3 4 5 5
has #12 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6

```

```

S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #4758
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 4 4 4
1 1 3 4 5 5
1 1 3 4 5 6
has #11 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6

```



```

S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #4761

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 3
1 1 1 4 4 4
1 1 3 4 5 6
1 1 3 4 6 5

```

has #13 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4913
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 3 4
1 1 1 1 4 3
1 1 3 4 5 6
1 1 4 3 6 5
has #14 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 5
S1: 1 3 6
Resonance #6
S0: 1 2 3 5
S1: 1 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #14
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #4926
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 1 2 2
1 1 2 2 1 2
1 1 2 2 2 1
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6

```

S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6

```

S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4927
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 1 2 2
1 1 2 2 1 2
1 1 2 2 2 2

```

has #51 resonances.

Resonance #1

S0: 1 2

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 5

S1: 1 2 3 4 6

Resonance #4

S0: 1 2 4

S1: 1 2 3 5 6

Resonance #5

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #6

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #8

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #9

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #10

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #11

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #12

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #13

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #14

S0: 1 2 4 6

S1: 1 2 3 5 6

Resonance #15

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #16

S0: 1 2 3 6

S1: 1 2 4 5 6

Resonance #17

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #18

S0: 1 2 4 5

S1: 1 2 3 5 6

Resonance #19

S0: 1 2 4 5

S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5

```

S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4928

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 1 2 2
1 1 2 2 2 1
1 1 2 2 1 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5

```


S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4

S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6

```

S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4930

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 1 2 2
1 1 2 2 2 2
1 1 2 2 2 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6

```

S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

```

The semigroup #4931

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 2 1 1
1 1 2 1 2 1
1 1 2 1 1 2

```

```

has #51 resonances.

```

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5

```

S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6


```

S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4934
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 2 1 1
1 1 2 1 2 2
1 1 2 1 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6

```

S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6

S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4939
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 2 1 2
1 1 2 1 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6

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S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6

```

S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4943
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2

```

1 1 2 2 2 2
1 1 2 2 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5

S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5


```

S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4944
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 1 2 3 3 3
1 1 2 3 3 3
has #14 resonances.
Resonance #1
S0: 1 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3

```

```

S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4971

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 4

```

has #17 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4

```

```

S1: 1 3 4 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #4972

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 5

```

has #11 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4973
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 6
has #12 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6

```

```

S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #4978
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 4 5
1 1 3 4 5 6
has #10 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #4981
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3

```

```

1 1 3 4 4 4
1 1 3 4 5 4
1 1 3 4 4 6
has #8 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #4984
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 5 5
1 1 3 4 5 5
has #8 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #4985
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 5 5
1 1 3 4 5 6
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #4988
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 5 6
1 1 3 4 6 5
has #9 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6

```

```

S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #4998
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 4 6
1 1 3 4 4 6
1 1 3 6 6 4
has #10 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #4999
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3

```



```

1 1 3 4 4 6
1 1 3 4 5 6
1 1 3 6 6 4
has #9 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #5003
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 5 5
1 1 3 5 4 4
1 1 3 5 4 4
has #10 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 4 5 6

```

```

S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #5004
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 3 3 3
1 1 3 4 5 6
1 1 3 5 6 4
1 1 3 6 4 5
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #5063
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 2 1 1
1 1 1 1 2 1
1 1 1 1 1 2
has #65 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 4

```

S1: 1 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 4 5 6
Resonance #6
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 4 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 6
S1: 1 4 5
Resonance #13
S0: 1 2 4 5
S1: 1 3 6
Resonance #14
S0: 1 2 3 5
S1: 1 4 6
Resonance #15
S0: 1 2 3 4
S1: 1 5 6
Resonance #16
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #22
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 5 6

S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #32
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #33
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #34
S0: 1 2 4 5 6
S1: 1 3
Resonance #35
S0: 1 2 3 5 6
S1: 1 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 6
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #40
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #42
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #54
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #55
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #56
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #57
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #58
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #59
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #60
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #61
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #62
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #63
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #64
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #65
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5064
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 2 1 1
1 1 1 1 2 1
1 1 1 1 1 6
has #45 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 4 5
Resonance #7
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #10
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #12
S0: 1 2 3 6

```

S1: 1 2 4 5
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 3
Resonance #20
S0: 1 2 3 5 6
S1: 1 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6

```

S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #38
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #39
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #40
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #41
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #45
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #5069
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 2 1 1
1 1 1 1 2 2
1 1 1 1 2 2
has #57 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4

```


S1: 1 3 5 6
Resonance #3
S0: 1 2 3
S1: 1 4 5 6
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 3 4
S1: 1 5 6
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #13
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #15
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #16
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 6

S1: 1 2 3 4 5
Resonance #22
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 3
Resonance #29
S0: 1 2 3 5 6
S1: 1 4
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #34
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #35
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #36
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #37
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #39
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #40
S0: 1 2 3 4 6

```

S1: 1 2 5 6
Resonance #41
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #42
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #43
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #44
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #45
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #46
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #47
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #48
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #51
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #52
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #53
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #54
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #55
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #56
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #57
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5074
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1

```

1 1 1 2 1 1
1 1 1 1 5 1
1 1 1 1 1 6
has #29 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #18
S0: 1 2 4 5 6

S1: 1 2 3 5
 Resonance #19
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #20
 S0: 1 2 3 5 6
 S1: 1 4 5 6
 Resonance #21
 S0: 1 2 3 5 6
 S1: 1 2 4 6
 Resonance #22
 S0: 1 2 3 5 6
 S1: 1 2 4 5
 Resonance #23
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #24
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #25
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6
 Resonance #26
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #27
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #28
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #29
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5

The semigroup #5078

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 2 1 1 1
 1 1 1 2 1 1
 1 1 1 1 5 5
 1 1 1 1 5 5

has #30 resonances.

Resonance #1
 S0: 1 2 5
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 5 6
 S1: 1 3 4
 Resonance #3
 S0: 1 2 5 6
 S1: 1 3 4 5
 Resonance #4
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #5
 S0: 1 2 4 5

S1: 1 3 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #24
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #5079

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 2 1 1
1 1 1 1 5 5
1 1 1 1 5 6

```

has #21 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6

```

```

S1: 1 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #5083

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 2 1 1
1 1 1 1 5 6
1 1 1 1 6 5

```

has #26 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 5
S1: 1 3 6
Resonance #5
S0: 1 2 3 5

```


S1: 1 4 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 4
Resonance #14
S0: 1 2 3 4 5
S1: 1 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5102
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 2 1 2
1 1 1 1 2 2
1 1 1 2 2 2
has #53 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6

```

S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 3
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6

S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5105
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 2 1 2
1 1 1 1 5 1
1 1 1 2 1 2
has #37 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 4 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 4 5 6

```

S1: 1 3
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #34
S0: 1 2 3 5 6

S1: 1 2 3 4 5
 Resonance #35
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #36
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #37
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #5108

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 2 1 1 1
 1 1 1 2 1 2
 1 1 1 1 5 5
 1 1 1 2 5 5

has #21 resonances.

Resonance #1
 S0: 1 2 5
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #3
 S0: 1 2 3 5
 S1: 1 4 5 6
 Resonance #4
 S0: 1 2 5 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 4 5
 S1: 1 2 3 5 6
 Resonance #6
 S0: 1 2 3 5
 S1: 1 2 4 5 6
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 3 5
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #10
 S0: 1 2 3 5 6
 S1: 1 2 4
 Resonance #11
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #13
 S0: 1 2 3 5 6

```

S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #5145

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 1 1 2 2 2

```

has #53 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 6

```


S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 3
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #5159

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 1 1
1 1 1 1 5 1
1 1 1 1 1 6

```

has #15 resonances.

```

Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 4 5 6

```

S1: 1 3 4 5
 Resonance #10
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #11
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 3 4 5 6
 Resonance #13
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #14
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6
 Resonance #15
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5

The semigroup #5162

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 2 1 1 1
 1 1 1 4 1 1
 1 1 1 1 5 5
 1 1 1 1 5 5

has #19 resonances.

Resonance #1
 S0: 1 2 4 5
 S1: 1 3 5 6
 Resonance #2
 S0: 1 2 4 5
 S1: 1 3 4 5 6
 Resonance #3
 S0: 1 2 4 5
 S1: 1 2 3 5 6
 Resonance #4
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 3 5
 Resonance #6
 S0: 1 2 4 5 6
 S1: 1 3 4
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #8
 S0: 1 2 3 4 5
 S1: 1 5 6
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 3 5 6
 Resonance #10
 S0: 1 2 4 5 6

```

S1: 1 3 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #5163

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 1 1
1 1 1 1 5 5
1 1 1 1 5 6

```

has #11 resonances.

```

Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #5166
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 1 1
1 1 1 1 5 6
1 1 1 1 6 5
has #17 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 2 3 4 5
S1: 1 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #12
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5175

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 1 4
1 1 1 1 5 5
1 1 1 4 5 6

```

has #9 resonances.

```

Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #5196

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
has #28 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6


```

S1: 1 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5197

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 5

```

has #15 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #6
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5198

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 6

```

has #17 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6

```

```

S1: 1 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #5203

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 4 4
1 1 1 4 4 5
1 1 1 4 5 6

```

has #12 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6

```

```

S1: 1 4 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #5204
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 4 4
1 1 1 4 5 4
1 1 1 4 4 6
has #9 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #5207

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 4 4
1 1 1 4 5 5
1 1 1 4 5 5
has #10 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #5208
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 4 4
1 1 1 4 5 5
1 1 1 4 5 6
has #7 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6

```

```

S1: 1 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5

```

The semigroup #5211

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 4 4
1 1 1 4 5 6
1 1 1 4 6 5

```

has #10 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #5216

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 4 6
1 1 1 4 4 6
1 1 1 6 6 4

```

has #13 resonances.

Resonance #1

S0: 1 2 4 5

S1: 1 3 6

Resonance #2

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #3

S0: 1 2 4 6

S1: 1 3 4 5 6

Resonance #4

S0: 1 2 4 5 6

S1: 1 3

Resonance #5

S0: 1 2 3 4 5

S1: 1 6

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #8

S0: 1 2 4 5 6

S1: 1 3 4 6

Resonance #9

S0: 1 2 3 4 6

S1: 1 4 5 6

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #11

S0: 1 2 4 5 6

S1: 1 3 4 5 6

Resonance #12

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #13

S0: 1 2 3 4 6

S1: 1 2 4 5 6

The semigroup #5218

1 1 1 1 1 1

1 1 1 1 1 1

1 1 2 1 1 1

1 1 1 4 4 6

1 1 1 4 5 6

1 1 1 6 6 4

has #10 resonances.

Resonance #1

S0: 1 2 4 5

S1: 1 3 6

Resonance #2

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #3

S0: 1 2 4 5 6

S1: 1 3
 Resonance #4
 S0: 1 2 3 4 5
 S1: 1 6
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #6
 S0: 1 2 3 4 5
 S1: 1 2 6
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 3 4 6
 Resonance #8
 S0: 1 2 3 4 5
 S1: 1 2 3 6
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 3 4 5 6
 Resonance #10
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6

The semigroup #5224

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 2 1 1 1
 1 1 1 4 5 5
 1 1 1 5 4 4
 1 1 1 5 4 4

has #13 resonances.

Resonance #1
 S0: 1 2 4
 S1: 1 3 5 6
 Resonance #2
 S0: 1 2 4
 S1: 1 2 3 5 6
 Resonance #3
 S0: 1 2 3 4
 S1: 1 5 6
 Resonance #4
 S0: 1 2 3 4
 S1: 1 2 5 6
 Resonance #5
 S0: 1 2 4 5
 S1: 1 3 4 5 6
 Resonance #6
 S0: 1 2 3 4
 S1: 1 2 3 5 6
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #9
 S0: 1 2 4 5 6


```

S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #5232
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 1
1 1 1 4 5 6
1 1 1 5 6 4
1 1 1 6 4 5
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #5275
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 2 1 2
1 1 1 1 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6

```

S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

The semigroup #5276

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 2 1 2
1 1 1 1 5 1
1 1 2 2 1 2

```

has #33 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5

```

S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6

```

S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5277

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 2 1 2
1 1 1 1 5 5
1 1 2 2 5 5

```

has #18 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #5290

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 2 2 1
1 1 1 2 2 1
1 1 2 1 1 2

```

has #53 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 6

```

S1: 1 2 3 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #24
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #28
S0: 1 2 3 4 6

S1: 1 2 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #38
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #41
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #47
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #52
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #53
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5293
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 2 2 1
1 1 1 2 2 2
1 1 2 1 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5

```

S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6

S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6

```

S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5306

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 2 2 2
1 1 1 2 2 2
1 1 2 2 2 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6

```

S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6

S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #5321
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 1 1
1 1 1 1 5 1
1 1 2 1 1 2
has #21 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #16
S0: 1 2 4 5 6

```



```

S1: 1 2 3 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5322

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 1 1
1 1 1 1 5 5
1 1 2 1 5 5

```

has #11 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 5

```

```

S1: 1 2 3 5 6
*****
The semigroup #5333
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 4 1
1 1 1 4 4 1
1 1 2 1 1 2
has #22 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4 5

```

```

S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #5335

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 4 1
1 1 1 4 4 2
1 1 2 1 2 2

```

has #18 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5336

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 4 1
1 1 1 4 5 1
1 1 2 1 1 2

```

has #15 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 4 5 6

```

S1: 1 2 3 6
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #10
 S0: 1 2 3 4 5
 S1: 1 2 4 6
 Resonance #11
 S0: 1 2 3 4 5
 S1: 1 2 3 6
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6
 Resonance #13
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #14
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #15
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #5341

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 2 1 1 2
 1 1 1 4 4 4
 1 1 1 4 4 4
 1 1 2 4 4 4

has #17 resonances.

Resonance #1
 S0: 1 2 4
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 4 5
 S1: 1 3 4 6
 Resonance #3
 S0: 1 2 4 6
 S1: 1 2 3 4 5
 Resonance #4
 S0: 1 2 4 5
 S1: 1 3 4 5 6
 Resonance #5
 S0: 1 2 4 5
 S1: 1 2 3 4 6
 Resonance #6
 S0: 1 2 3 4
 S1: 1 2 4 5 6
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #8
 S0: 1 2 3 4 6
 S1: 1 4 5
 Resonance #9
 S0: 1 2 4 5 6

```

S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5342

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 5

```

has #9 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
 Resonance #9
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #5343

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 2 1 1 2
 1 1 1 4 4 4
 1 1 1 4 5 4
 1 1 2 4 4 4

has #10 resonances.

Resonance #1

S0: 1 2 4 5

S1: 1 3 4 6

Resonance #2

S0: 1 2 4 5

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 4 5 6

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #5344

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 2 1 1 2
 1 1 1 4 4 4
 1 1 1 4 5 5
 1 1 2 4 5 5

has #5 resonances.

Resonance #1

S0: 1 2 4 5

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 4 5 6

```

S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #5348

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 5 1
1 1 1 5 4 1
1 1 2 1 1 2

```

has #20 resonances.

```

Resonance #1
S0: 1 2 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5

```



```

S1: 1 2 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

```

*****

```

The semigroup #5350

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 5 4
1 1 1 5 4 5
1 1 2 4 5 4

```

has #8 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

```

*****

```

The semigroup #5353

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 1 2
1 1 1 4 5 5
1 1 1 5 4 4
1 1 2 5 4 4
has #8 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #5396
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 2 2
1 1 1 2 2 2
1 1 2 2 2 1
1 1 2 2 1 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6

```

S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

The semigroup #5398

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 2 2
1 1 1 2 2 2
1 1 2 2 2 2
1 1 2 2 2 2

```

has #51 resonances.

```

Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5

```

S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6

S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5399
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 2 2
1 1 1 4 1 1
1 1 2 1 2 2
1 1 2 1 2 2
has #33 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4

```


S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #33
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5400
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 2 2
1 1 1 4 1 4
1 1 2 1 2 2
1 1 2 4 2 4
has #18 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5401
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 1 2 2
1 1 1 4 4 4
1 1 2 4 4 4
1 1 2 4 4 4
has #14 resonances.
Resonance #1
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5416
1 1 1 1 1 1
1 1 1 1 1 1
1 1 2 2 2 2
1 1 2 2 2 2
1 1 2 2 2 2
1 1 2 2 2 2
has #51 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6

```

S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6

```

S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5417

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 1 1
1 1 1 1 5 1
1 1 1 1 1 6
has #15 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #5420
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1

```

1 1 1 4 1 1
1 1 1 1 5 5
1 1 1 1 5 5
has #21 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #18
S0: 1 3 4 5 6


```

S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #5421

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 1 1
1 1 1 1 5 5
1 1 1 1 5 6

```

has #11 resonances.

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #5424

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1

```

1 1 1 4 1 1
1 1 1 1 5 6
1 1 1 1 6 5
has #19 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 3 4 5
S1: 1 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 3 4 5 6

S1: 1 2 3 5 6
 Resonance #19
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #5437

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 1 1 1
 1 1 1 4 1 4
 1 1 1 1 5 5
 1 1 1 4 5 6

has #9 resonances.

Resonance #1
 S0: 1 3 4 5 6
 S1: 1 2

Resonance #2
 S0: 1 3 4 5 6
 S1: 1 2 5

Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2 4

Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 3

Resonance #5
 S0: 1 3 4 5 6
 S1: 1 2 4 5

Resonance #6
 S0: 1 3 4 5 6
 S1: 1 2 3 5

Resonance #7
 S0: 1 3 4 5 6
 S1: 1 2 3 4

Resonance #8
 S0: 1 3 4 5 6
 S1: 1 2 4 5 6

Resonance #9
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5

The semigroup #5457

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 1 1 1
 1 1 1 4 4 4
 1 1 1 4 4 4
 1 1 1 4 4 4

has #33 resonances.

Resonance #1
 S0: 1 3 4
 S1: 1 2 4 5 6

Resonance #2
 S0: 1 3 4 6
 S1: 1 2 4 5

Resonance #3
 S0: 1 3 4 5

S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 2 3 4 5

S1: 1 4 5 6
 Resonance #23
 S0: 1 2 3 4 5
 S1: 1 3 4 6
 Resonance #24
 S0: 1 2 3 4 5
 S1: 1 2 4 6
 Resonance #25
 S0: 1 3 4 5 6
 S1: 1 2 4 5 6
 Resonance #26
 S0: 1 3 4 5 6
 S1: 1 2 3 4 6
 Resonance #27
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5
 Resonance #28
 S0: 1 2 3 4 6
 S1: 1 3 4 5 6
 Resonance #29
 S0: 1 2 3 4 6
 S1: 1 2 4 5 6
 Resonance #30
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #31
 S0: 1 2 3 4 5
 S1: 1 3 4 5 6
 Resonance #32
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #33
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #5458

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 1 1 1
 1 1 1 4 4 4
 1 1 1 4 4 4
 1 1 1 4 4 5

has #17 resonances.

Resonance #1
 S0: 1 3 4 5
 S1: 1 2 4 6
 Resonance #2
 S0: 1 3 4 5
 S1: 1 2 4 5 6
 Resonance #3
 S0: 1 3 4 5
 S1: 1 2 3 4 6
 Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2
 Resonance #5
 S0: 1 3 4 5 6

```

S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5459

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 6

```

has #19 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #5464

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 4 5
1 1 1 4 5 6

```

has #13 resonances.

```

Resonance #1
S0: 1 3 4 6

```

```

S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #5467

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 5 4
1 1 1 4 4 6

```

has #9 resonances.

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6

```



```

S1: 1 2 4 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #5470

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 5 5
1 1 1 4 5 5

```

has #11 resonances.

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6

The semigroup #5471

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 5 5
1 1 1 4 5 6

has #7 resonances.

Resonance #1

S0: 1 3 4 5 6

S1: 1 2

Resonance #2

S0: 1 3 4 5 6

S1: 1 2 4

Resonance #3

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 4 5

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 4 5 6

Resonance #7

S0: 1 3 4 5 6

S1: 1 2 3 4 5

The semigroup #5474

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 5 6
1 1 1 4 6 5

has #11 resonances.

Resonance #1

S0: 1 3 4 5

S1: 1 2 4 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 3 4 5 6

S1: 1 2

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 4

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 2 3 4 5

```

S1: 1 4 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5484

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 6
1 1 1 4 4 6
1 1 1 6 6 4

```

has #15 resonances.

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 3 4 5
S1: 1 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #11
S0: 1 2 3 4 5

```

```

S1: 1 2 3 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #5486
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 6
1 1 1 4 5 6
1 1 1 6 6 4
has #11 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 5
S1: 1 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #5493

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1
1 1 1 4 5 5
1 1 1 5 4 4
1 1 1 5 4 4
has #15 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #5501
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 1

```

```

1 1 1 4 5 6
1 1 1 5 6 4
1 1 1 6 4 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4 5 6
*****
The semigroup #5583
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 1 4
1 1 1 1 5 5
1 1 3 4 5 6
has #8 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #5591
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 1 3 1 1 3
has #23 resonances.
Resonance #1
S0: 1 3 4 6

```

S1: 1 2 4 5
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6

```

S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5592

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 1 3 1 1 6

```

has #15 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 4 5 6

```



```

S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #5597

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 4 2
1 1 3 1 2 3

```

has #9 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #5598

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 5 1
1 1 3 1 1 6

```

has #8 resonances.

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6

```

S1: 1 2 4
 Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2 3
 Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 3 6
 Resonance #5
 S0: 1 3 4 5 6
 S1: 1 2 4 5
 Resonance #6
 S0: 1 3 4 5 6
 S1: 1 2 3 4
 Resonance #7
 S0: 1 3 4 5 6
 S1: 1 2 3 4 6
 Resonance #8
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5

The semigroup #5603

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 1 1 3
 1 1 1 4 4 4
 1 1 1 4 4 4
 1 1 3 4 4 6

has #14 resonances.

Resonance #1
 S0: 1 3 4 6
 S1: 1 2 4 5
 Resonance #2
 S0: 1 3 4 6
 S1: 1 2 3 4 5
 Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2
 Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 4
 Resonance #5
 S0: 1 3 4 5 6
 S1: 1 2 3
 Resonance #6
 S0: 1 2 3 4 6
 S1: 1 4 5
 Resonance #7
 S0: 1 3 4 5 6
 S1: 1 2 4 5
 Resonance #8
 S0: 1 3 4 5 6
 S1: 1 2 3 4
 Resonance #9
 S0: 1 2 3 4 6
 S1: 1 3 4 5
 Resonance #10
 S0: 1 2 3 4 6

```

S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #5607
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 4 5
1 1 3 4 5 6
has #12 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6

```

S1: 1 2 3 4 5

The semigroup #5610

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 5 4
1 1 3 4 4 6

has #7 resonances.

Resonance #1

S0: 1 3 4 5 6

S1: 1 2

Resonance #2

S0: 1 3 4 5 6

S1: 1 2 4

Resonance #3

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 4 5

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 3 4 6

Resonance #7

S0: 1 3 4 5 6

S1: 1 2 3 4 5

The semigroup #5612

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 5 5
1 1 3 4 5 6

has #6 resonances.

Resonance #1

S0: 1 3 4 5 6

S1: 1 2

Resonance #2

S0: 1 3 4 5 6

S1: 1 2 4

Resonance #3

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 4 5

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 3 4 5 6

```

S1: 1 2 3 4 5
*****
The semigroup #5622
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 1 3 1 1 3
has #21 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 3 4 6
S1: 1 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6

```

```

S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****

```

The semigroup #5623

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 1 3 1 1 6

```

has #14 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 3 4 6
S1: 1 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 6

```

```

S1: 1 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

The semigroup #5632

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 3
1 1 1 4 5 4
1 1 1 5 4 5
1 1 3 4 5 6

```

has #10 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 6
S1: 1 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #5731

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 1 6
1 1 1 4 5 1
1 1 1 5 4 1
1 1 6 1 1 3

```

has #18 resonances.

Resonance #1

S0: 1 3 4

S1: 1 2 5 6

Resonance #2

S0: 1 3 4 6

S1: 1 2 5

Resonance #3

S0: 1 3 4 5

S1: 1 2 6

Resonance #4

S0: 1 2 3 4

S1: 1 5 6

Resonance #5

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #6

S0: 1 3 4 6

S1: 1 2 3 5 6

Resonance #7

S0: 1 3 4 5

S1: 1 2 4 5 6

Resonance #8

S0: 1 3 4 5 6

S1: 1 2

Resonance #9

S0: 1 2 3 4 6

S1: 1 5

Resonance #10

S0: 1 2 3 4 5

S1: 1 6

Resonance #11

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #13

S0: 1 3 4 5 6

S1: 1 2 3 6

Resonance #14

S0: 1 3 4 5 6

S1: 1 2 4 5

Resonance #15

S0: 1 2 3 4 6

S1: 1 3 5 6

Resonance #16

S0: 1 2 3 4 5

S1: 1 4 5 6

Resonance #17

S0: 1 2 3 4 6

S1: 1 2 3 5 6

Resonance #18

S0: 1 2 3 4 5

S1: 1 2 4 5 6

The semigroup #5768


```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 3 3
1 1 1 4 4 4
1 1 3 4 5 5
1 1 3 4 5 5
has #6 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #5769
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 3 3
1 1 1 4 4 4
1 1 3 4 5 5
1 1 3 4 5 6
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #5772
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 1 3 3
1 1 1 4 4 4
1 1 3 4 5 6
1 1 3 4 6 5

```

has #7 resonances.

Resonance #1

S0: 1 3 4 5

S1: 1 2 3 4 6

Resonance #2

S0: 1 3 4 5 6

S1: 1 2

Resonance #3

S0: 1 3 4 5 6

S1: 1 2 4

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 3 4 5

S1: 1 3 4 6

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #5951

1 1 1 1 1 1

1 1 1 1 1 1

1 1 3 3 3 3

1 1 3 3 3 3

1 1 3 3 3 3

1 1 3 3 3 3

has #51 resonances.

Resonance #1

S0: 1 3 6

S1: 1 2 3 4 5

Resonance #2

S0: 1 3 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 3 4

S1: 1 2 3 5 6

Resonance #4

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #5

S0: 1 3 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 3 4 6

S1: 1 2 3 5

Resonance #7

S0: 1 2 3 6

S1: 1 3 4 5

Resonance #8

S0: 1 3 4 5

S1: 1 2 3 6

Resonance #9

S0: 1 2 3 5

S1: 1 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #11
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #18
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #23
S0: 1 3 4 5 6
S1: 1 2
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #28
S0: 1 3 4 5 6

S1: 1 2 3 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #47
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5952
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 4
has #27 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 4 6

```

```

S1: 1 3 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #21
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #5953
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 6
has #32 resonances.
Resonance #1
S0: 1 3 6

```

S1: 1 2 3 4 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 3 5 6

```

S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #5964

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 3

```

has #23 resonances.

```

Resonance #1
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6

```


S1: 1 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #5965
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 4
has #17 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5

```

```

S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5966

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 5

```

has #11 resonances.

```

Resonance #1
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #5967

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 5
1 1 3 3 5 6

```

has #22 resonances.

```

Resonance #1
S0: 1 3 6

```

S1: 1 2 3 4 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 5 6

```

S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #5974
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 4 3
1 1 3 3 3 4
has #23 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6

```

```

S1: 1 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5975

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 4 3
1 1 3 3 3 6

```

has #16 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #7
S0: 1 3 4 5 6

```

```

S1: 1 2 3 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #5979

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 3 4 4

```

has #17 resonances.

```

Resonance #1
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #5980

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 3
1 1 3 3 3 6

```

has #18 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6

```



```

S1: 1 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #5985

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 5
1 1 3 3 5 5

```

has #18 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 5

```

```

S1: 1 3 4 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #5986
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 5
1 1 3 3 5 6
has #13 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6

```

S1: 1 2 3 4 5
 Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2
 Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 3
 Resonance #5
 S0: 1 2 3 5 6
 S1: 1 3 4
 Resonance #6
 S0: 1 3 4 5 6
 S1: 1 2 3 5
 Resonance #7
 S0: 1 3 4 5 6
 S1: 1 2 3 4
 Resonance #8
 S0: 1 2 3 5 6
 S1: 1 3 4 5
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #10
 S0: 1 3 4 5 6
 S1: 1 2 3 5 6
 Resonance #11
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5
 Resonance #12
 S0: 1 2 3 5 6
 S1: 1 3 4 5 6
 Resonance #13
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5

The semigroup #5991

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 3 3 3
 1 1 3 3 3 3
 1 1 3 3 5 6
 1 1 3 3 6 5

has #17 resonances.

Resonance #1
 S0: 1 3 5
 S1: 1 2 3 4 6
 Resonance #2
 S0: 1 3 5 6
 S1: 1 2 3 4
 Resonance #3
 S0: 1 3 4 5
 S1: 1 2 3 6
 Resonance #4
 S0: 1 2 3 5
 S1: 1 3 4 6
 Resonance #5
 S0: 1 3 4 5

```

S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #6021

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 3 4
1 1 3 4 4 6

```

has #12 resonances.

```

Resonance #1
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #6026
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 3 5
1 1 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #6031

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 5
1 1 3 4 5 6

```

has #10 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6

```

S1: 1 2 3
 Resonance #5
 S0: 1 2 3 4 6
 S1: 1 3 5
 Resonance #6
 S0: 1 3 4 5 6
 S1: 1 2 3 4
 Resonance #7
 S0: 1 2 3 4 6
 S1: 1 3 4 5
 Resonance #8
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #9
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5
 Resonance #10
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #6033

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 3 3 3
 1 1 3 3 3 4
 1 1 3 3 5 3
 1 1 3 4 3 6

has #12 resonances.

Resonance #1
 S0: 1 3 5 6
 S1: 1 2 3 4
 Resonance #2
 S0: 1 3 5 6
 S1: 1 2 3 4 5
 Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2
 Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 3
 Resonance #5
 S0: 1 2 3 5 6
 S1: 1 3 4
 Resonance #6
 S0: 1 3 4 5 6
 S1: 1 2 3 5
 Resonance #7
 S0: 1 3 4 5 6
 S1: 1 2 3 4
 Resonance #8
 S0: 1 2 3 5 6
 S1: 1 3 4 5
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #10
 S0: 1 3 4 5 6

```

S1: 1 2 3 4 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #6036
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 5 5
1 1 3 4 5 6
has #11 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #6065
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 4 5 5
1 1 3 4 5 5

```



```

has #8 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #6066
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 4 5 5
1 1 3 4 5 6
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #6069

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 4 5 6
1 1 3 4 6 5
has #9 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #6081
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 3 3
1 1 3 3 5 3
1 1 3 3 3 6
has #8 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #6084

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 3 3
1 1 3 3 5 5
1 1 3 3 5 5
has #10 resonances.

```

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #6085

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 3 3
1 1 3 3 5 5
1 1 3 3 5 6

```

has #6 resonances.

Resonance #1

S0: 1 3 4 5 6

S1: 1 2

Resonance #2

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #3

S0: 1 3 4 5 6

S1: 1 2 3 5

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3 5 6

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 3 4 5

The semigroup #6088

1 1 1 1 1 1

1 1 1 1 1 1

1 1 3 3 3 3

1 1 3 4 3 3

1 1 3 3 5 6

1 1 3 3 6 5

has #10 resonances.

Resonance #1

S0: 1 3 4 5

S1: 1 2 3 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 3 4 5 6

S1: 1 2

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 3 4 5

S1: 1 3 6

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 3 4 5

S1: 1 3 4 6

Resonance #8

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #9

S0: 1 3 4 5 6

S1: 1 2 3 5 6

Resonance #10

S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #6100
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 3 4
1 1 3 3 5 5
1 1 3 4 5 6
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #6119
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 4
has #14 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 5

```

```

S1: 1 3 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #6120

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 5

```

has #8 resonances.

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #6121

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3

```

```

1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 6
has #9 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #6126
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 5
1 1 3 4 5 6
has #7 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 3 4 5 6

```

S1: 1 2 3 4 5
 Resonance #7
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #6129

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 3 3 3
 1 1 3 4 4 4
 1 1 3 4 5 4
 1 1 3 4 4 6

has #5 resonances.

Resonance #1
 S0: 1 3 4 5 6
 S1: 1 2

Resonance #2
 S0: 1 3 4 5 6
 S1: 1 2 3

Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2 3 4

Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 3 4 6

Resonance #5
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5

The semigroup #6132

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 3 3 3
 1 1 3 4 4 4
 1 1 3 4 5 5
 1 1 3 4 5 5

has #5 resonances.

Resonance #1
 S0: 1 3 4 5 6
 S1: 1 2

Resonance #2
 S0: 1 3 4 5 6
 S1: 1 2 3

Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2 3 4

Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5

Resonance #5
 S0: 1 2 3 4 5
 S1: 1 3 4 5 6

The semigroup #6133

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 3 3 3


```

1 1 3 4 4 4
1 1 3 4 5 5
1 1 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #6136
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 5 6
1 1 3 4 6 5
has #6 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #6146
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 6
1 1 3 4 4 6
1 1 3 6 6 4
has #7 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****

```

The semigroup #6148

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 6
1 1 3 4 5 6
1 1 3 6 6 4
has #6 resonances.

```

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6

```

The semigroup #6155

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 5 5
1 1 3 5 4 4
1 1 3 5 4 4
has #7 resonances.

```

```

Resonance #1
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4

```

```

S1: 1 3 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #6158
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 3
1 1 3 4 5 6
1 1 3 5 6 4
1 1 3 6 4 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #6202
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 3 6
1 1 6 6 6 3
has #16 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 3 4 5

```

```

S1: 1 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #6204

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 4 6
1 1 6 6 6 3

```

has #10 resonances.

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 5
S1: 1 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 3 4 5 6

```

```

S1: 1 2 3 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #6206
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 5 6
1 1 6 6 6 3
has #11 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 5
S1: 1 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #6220

```

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 6
1 1 3 3 4 6
1 1 3 4 5 6
1 1 6 6 6 3
has #9 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 5
S1: 1 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #6230
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 6
1 1 3 4 3 6
1 1 3 3 5 6
1 1 6 6 6 3
has #7 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 5
S1: 1 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 3 4 5 6

```

```

S1: 1 2 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #6238

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 6
1 1 3 4 4 6
1 1 3 4 4 6
1 1 6 6 6 3

```

has #7 resonances.

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 5
S1: 1 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5 6

```

The semigroup #6240

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 6
1 1 3 4 4 6
1 1 3 4 5 6
1 1 6 6 6 3

```

has #6 resonances.

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 5
S1: 1 6
Resonance #4
S0: 1 2 3 4 5

```

```

S1: 1 2 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #6250

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 3 6
1 1 3 4 5 6
1 1 3 5 4 6
1 1 6 6 6 3

```

has #8 resonances.

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 5
S1: 1 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #6279

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 5 5
1 1 3 3 5 5
1 1 5 5 3 3
1 1 5 5 3 3

```

has #16 resonances.

```

Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 5 6
Resonance #3
S0: 1 2 3 4

```



```

S1: 1 2 5 6
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #6280

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 5 5
1 1 3 3 5 5
1 1 5 5 3 3
1 1 5 5 3 4

```

has #10 resonances.

```

Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 5 6
Resonance #3
S0: 1 2 3 4

```

```

S1: 1 2 5 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

```

*****

```

The semigroup #6286

```

1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 5 5
1 1 3 4 5 5
1 1 5 5 3 3
1 1 5 5 3 3

```

has #11 resonances.

```

Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6

```

S1: 1 2 3 4 5
 Resonance #10
 S0: 1 2 3 4 5
 S1: 1 3 4 5 6
 Resonance #11
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #6293

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 3 5 5
 1 1 3 4 5 6
 1 1 5 5 3 3
 1 1 5 6 3 3

has #9 resonances.

Resonance #1

S0: 1 3 4
 S1: 1 2 5 6

Resonance #2

S0: 1 2 3 4
 S1: 1 5 6

Resonance #3

S0: 1 2 3 4
 S1: 1 2 5 6

Resonance #4

S0: 1 3 4 5
 S1: 1 2 3 5 6

Resonance #5

S0: 1 3 4 5 6
 S1: 1 2

Resonance #6

S0: 1 3 4 5 6
 S1: 1 2 3 5

Resonance #7

S0: 1 2 3 4 5
 S1: 1 3 5 6

Resonance #8

S0: 1 3 4 5 6
 S1: 1 2 3 5 6

Resonance #9

S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #6294

1 1 1 1 1 1
 1 1 1 1 1 1
 1 1 3 3 5 5
 1 1 3 4 5 6
 1 1 5 5 3 3
 1 1 5 6 3 4

has #8 resonances.

Resonance #1

S0: 1 3 4
 S1: 1 2 5 6

Resonance #2

S0: 1 2 3 4

```

S1: 1 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #6325
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 5 6
1 1 3 3 5 6
1 1 5 5 6 3
1 1 6 6 3 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #6334
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 3 5 6
1 1 3 4 5 6
1 1 5 5 6 3
1 1 6 6 3 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #6358
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 4 4 4

```

```

1 1 4 3 3 3
1 1 4 3 3 3
1 1 4 3 3 3
has #16 resonances.
Resonance #1
S0: 1 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 4 5 6
Resonance #3
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #4
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #6382
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 4 4 6

```

```

1 1 4 6 6 3
1 1 4 6 6 3
1 1 6 3 3 4
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #6426
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 4 5 6
1 1 4 3 6 5
1 1 5 6 3 4
1 1 6 5 4 3
has #10 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 5
S1: 1 2 4 6
Resonance #3
S0: 1 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #6427
1 1 1 1 1 1
1 1 1 1 1 1
1 1 3 4 5 6

```

```

1 1 4 3 6 5
1 1 5 6 4 3
1 1 6 5 3 4
has #4 resonances.
Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #7010
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 2
1 2 2 2 2 6
has #32 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 6

```

S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #29
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 6


```

S1: 1 2 4 5 6
Resonance #31
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7017
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 5
1 2 2 2 5 6
has #25 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #14
S0: 1 2 3 4 6

```

```

S1: 1 2 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #7024

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 2 5
1 2 2 2 5 6

```

has #22 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 5 6

```

```

S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7028
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2

```

1 1 1 1 1 2
1 1 1 1 5 1
1 2 2 2 1 6
has #19 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #7032
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 5 5
1 2 2 2 5 6
has #14 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #7064

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 4
1 1 1 1 1 4
1 2 2 4 4 6
has #18 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6

```

S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7068
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 4
1 1 1 1 1 5
1 2 2 4 5 6
has #33 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 6
S1: 1 4 5
Resonance #9
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #14
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 5 6

```

```

S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #23
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #26
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7072

```


1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 4
1 1 1 1 2 5
1 2 2 4 5 6
has #23 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6

```

S1: 1 2 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7075
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 4
1 1 1 1 4 5
1 2 2 4 5 6
has #16 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 4 6

```

```

S1: 1 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7077
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 4
1 1 1 1 5 1
1 2 2 4 1 6
has #19 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 4
Resonance #10
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #11
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #7080

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 1 4
1 1 1 1 5 5
1 2 2 4 5 6

```

has #18 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #7155

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 2 4
1 1 1 2 1 5
1 2 2 4 5 6

```

has #22 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 4 5
Resonance #5
S0: 1 2 5 6

```

```

S1: 1 2 3 4
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7157
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2

```

1 1 1 1 2 4
1 1 1 2 2 5
1 2 2 4 5 6
has #20 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7159

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 2 4
1 1 1 2 4 5
1 2 2 4 5 6

```

has #10 resonances.

Resonance #1

```

S0: 1 4 6
S1: 1 2 3 5

```

Resonance #2

```

S0: 1 2 4 6
S1: 1 2 3 5

```

Resonance #3

```

S0: 1 2 4 6
S1: 1 2 3 4 5

```

Resonance #4

```

S0: 1 2 4 5 6
S1: 1 2 3

```

Resonance #5

```

S0: 1 2 3 4 6
S1: 1 2 5

```

Resonance #6

```

S0: 1 2 4 5 6
S1: 1 2 3 4

```

Resonance #7

```

S0: 1 2 3 4 6
S1: 1 2 4 5

```

Resonance #8

```

S0: 1 2 3 4 6
S1: 1 2 3 5

```

Resonance #9

```

S0: 1 2 4 5 6
S1: 1 2 3 4 5

```

Resonance #10

```

S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #7163

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 4 1
1 1 1 4 5 1
1 2 2 1 1 6

```

has #16 resonances.

Resonance #1

```

S0: 1 5 6

```



```

S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #7176
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 1 4 4
1 1 1 4 5 5
1 2 2 4 5 6
has #11 resonances.
Resonance #1
S0: 1 5 6

```

```

S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #7184
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 1 4
1 1 1 1 2 5
1 2 2 4 5 6
has #22 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6

```

```

S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7186
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 1 4
1 1 1 1 5 1
1 2 2 4 1 6

```

has #13 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 3 5 6

S1: 1 4

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 3 5 6

S1: 1 4 5

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 5

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #10

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #11

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #12

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #13

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #7188

1 1 1 1 1 1

1 1 1 1 1 2

1 1 1 1 1 2

1 1 1 2 1 4

1 1 1 1 5 5

1 2 2 4 5 6

has #12 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 3 5 6

```

S1: 1 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #7196

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 2 4
1 1 1 2 2 4
1 2 2 4 4 6

```

has #12 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7200

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 2 4
1 1 1 2 2 5
1 2 2 4 5 6

```

has #20 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6

```

```

S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7203
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 2 2 4
1 1 1 2 3 4
1 2 2 4 4 6
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7205

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 1 1
1 1 1 1 5 1
1 2 2 1 1 6
has #11 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #7207

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 1 1
1 1 1 1 5 5
1 2 2 1 5 6
has #9 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 4 5 6

```


S1: 1 2 3 4
 Resonance #4
 S0: 1 4 5 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #6
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5

The semigroup #7223

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 1 2
 1 1 1 4 1 4
 1 1 1 1 5 5
 1 2 2 4 5 6

has #8 resonances.

Resonance #1
 S0: 1 4 5 6
 S1: 1 2 3
 Resonance #2
 S0: 1 4 5 6
 S1: 1 2 3 5
 Resonance #3
 S0: 1 4 5 6
 S1: 1 2 3 4
 Resonance #4
 S0: 1 4 5 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #6
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5

The semigroup #7238

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 1 2

```

1 1 1 4 4 1
1 1 1 4 4 1
1 2 2 1 1 6
has #14 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7240
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 4 2
1 2 2 1 2 6
has #10 resonances.
Resonance #1
S0: 1 4 6

```

```

S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7243

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 4 1
1 1 1 4 5 1
1 2 2 1 1 6

```

has #8 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #7249

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 4 4
1 1 1 4 4 4
1 2 2 4 4 6

```

has #13 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5

```

```

Resonance #2
S0: 1 4 5 6
S1: 1 2 3

```

```

Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4

```

```

Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5

```

```

Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5

```

```

Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3

```

```

Resonance #7
S0: 1 2 3 4 6
S1: 1 4 5

```

```

Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4

```

```

Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5

```

```

Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6

```

```

Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5

```

```

Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

```

Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #7253

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2

```

```

1 1 1 4 4 4
1 1 1 4 4 5
1 2 2 4 5 6
has #11 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7256
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 4 4
1 1 1 4 5 4
1 2 2 4 4 6
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #7258

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 4 4
1 1 1 4 5 5
1 2 2 4 5 6
has #6 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #7270

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 5 1
1 1 1 5 4 1
1 2 2 1 1 6
has #13 resonances.

```

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #7277

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 2
1 1 1 4 5 4
1 1 1 5 4 5
1 2 2 4 5 6

```

has #9 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6

```

```

S1: 1 2 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #7408
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 1 1 4
1 1 1 1 1 5
1 2 3 4 5 6
has #65 resonances.
Resonance #1
S0: 1 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 6
S1: 1 3 4 5
Resonance #6
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 4 5 6
S1: 1 2 3
Resonance #11
S0: 1 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 5 6
S1: 1 3 4
Resonance #13
S0: 1 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 6

```


S1: 1 3 5
Resonance #15
S0: 1 2 3 6
S1: 1 4 5
Resonance #16
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #17
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #25
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #26
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #27
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #28
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #31
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 6

S1: 1 2 3 4 5
Resonance #34
S0: 1 3 4 5 6
S1: 1 2
Resonance #35
S0: 1 2 4 5 6
S1: 1 3
Resonance #36
S0: 1 2 3 5 6
S1: 1 4
Resonance #37
S0: 1 2 3 4 6
S1: 1 5
Resonance #38
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #39
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #41
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #42
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #43
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #44
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #45
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #46
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #47
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #48
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #49
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #50
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #51
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #52
S0: 1 3 4 5 6

```

S1: 1 2 3 4
Resonance #53
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #54
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #55
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #56
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #57
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #58
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #59
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #60
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #61
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #62
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #63
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #64
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #65
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7409

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 1 1 4
1 1 1 1 2 5
1 2 3 4 5 6

```

has #33 resonances.

Resonance #1

```

S0: 1 2 6
S1: 1 3 4 5

```

Resonance #2

```

S0: 1 2 6
S1: 1 2 3 4 5

```

Resonance #3

```

S0: 1 2 5 6

```

S1: 1 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #19
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #21
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #22
S0: 1 2 3 4 6

```

S1: 1 3 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #28
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #33
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #7410

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 1 1 4
1 1 1 1 5 1
1 2 3 4 1 6

```

has #38 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 5 6

```

S1: 1 3 4
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2
Resonance #16
S0: 1 2 4 5 6
S1: 1 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 3 5 6

```

S1: 1 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #7411
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 1 1 4
1 1 1 1 5 5
1 2 3 4 5 6
has #38 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 5 6

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 5 6
S1: 1 3 4
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2
Resonance #16
S0: 1 2 4 5 6
S1: 1 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #21
S0: 1 2 4 5 6


```

S1: 1 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #27
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #32
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #36
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #37
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #38
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #7465
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3

```

1 1 1 1 2 4
1 1 1 2 1 5
1 2 3 4 5 6
has #29 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 3 6
S1: 1 4 5
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 3
Resonance #18
S0: 1 2 4 5 6

```

S1: 1 2 3
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #7466

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 1 2 4
1 1 1 2 2 5
1 2 3 4 5 6

```

has #23 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 6

```

```

S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7467

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 1 2 4
1 1 1 2 3 5
1 2 3 4 5 6
has #15 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7468
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3

```

```

1 1 1 1 2 4
1 1 1 2 4 5
1 2 3 4 5 6
has #13 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7476
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 1 4 1
1 1 1 4 5 1
1 2 3 1 1 6
has #25 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6

```

S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 3 5 6
S1: 1 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 4 5 6

```

S1: 1 2 3 4
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #7486
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 1 4 4
1 1 1 4 5 5
1 2 3 4 5 6
has #24 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 3 5 6
S1: 1 4
Resonance #12
S0: 1 3 4 5 6

```



```

S1: 1 2 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #7495

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 1 4
1 1 1 1 2 5
1 2 3 4 5 6

```

has #29 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 6

```

S1: 1 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 3
Resonance #14
S0: 1 2 3 5 6
S1: 1 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #17
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #23
S0: 1 2 3 5 6

```

S1: 1 2 4 5
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7496
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 1 4
1 1 1 1 3 5
1 2 3 4 5 6
has #16 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #10
S0: 1 2 3 4 6

```

S1: 1 2 5
 Resonance #11
 S0: 1 2 3 5 6
 S1: 1 3 4 5
 Resonance #12
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #13
 S0: 1 2 3 4 6
 S1: 1 2 4 5
 Resonance #14
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #15
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #16
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #7497

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 1 3
 1 1 1 2 1 4
 1 1 1 1 5 1
 1 2 3 4 1 6

has #18 resonances.

Resonance #1
 S0: 1 2 5 6
 S1: 1 3 4
 Resonance #2
 S0: 1 2 5 6
 S1: 1 3 4 5
 Resonance #3
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #4
 S0: 1 2 5 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #6
 S0: 1 2 3 5 6
 S1: 1 4
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 3 5
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 4 5
 Resonance #10
 S0: 1 2 3 5 6

```

S1: 1 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #7498

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 1 4
1 1 1 1 5 5
1 2 3 4 5 6

```

has #18 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #8
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #7519
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 2 4
1 1 1 2 2 4
1 2 3 4 4 6
has #13 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 4 6

```

S1: 1 2 3 4 5
 Resonance #7
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #10
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #11
 S0: 1 2 3 4 6
 S1: 1 2 4 5
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #13
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #7521

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 1 3
 1 1 1 2 2 4
 1 1 1 2 2 5
 1 2 3 4 5 6

has #23 resonances.

Resonance #1
 S0: 1 2 6
 S1: 1 3 4 5
 Resonance #2
 S0: 1 2 6
 S1: 1 2 3 4 5
 Resonance #3
 S0: 1 2 3 6
 S1: 1 4 5
 Resonance #4
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #5
 S0: 1 2 4 6
 S1: 1 2 3 5
 Resonance #6
 S0: 1 2 3 6
 S1: 1 3 4 5
 Resonance #7
 S0: 1 2 3 6
 S1: 1 2 4 5
 Resonance #8
 S0: 1 2 5 6
 S1: 1 2 3 4 5
 Resonance #9
 S0: 1 2 4 6

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #7522

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 2 4
1 1 1 2 3 5
1 2 3 4 5 6

```

has #11 resonances.

```

Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 6

```



```

S1: 1 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7531

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 2 3 4
1 1 1 3 2 5
1 2 3 4 5 6

```

has #14 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 4 6
S1: 1 3 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 6

```

S1: 1 2 4 5
 Resonance #8
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 3 4
 Resonance #10
 S0: 1 2 3 4 6
 S1: 1 3 5
 Resonance #11
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #12
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #13
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #14
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #7532

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 1 3
 1 1 1 4 1 1
 1 1 1 1 5 1
 1 2 3 1 1 6

has #20 resonances.

Resonance #1
 S0: 1 4 5 6
 S1: 1 2 3
 Resonance #2
 S0: 1 4 5 6
 S1: 1 2 3 5
 Resonance #3
 S0: 1 4 5 6
 S1: 1 2 3 4
 Resonance #4
 S0: 1 4 5 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 3 4 5 6
 S1: 1 2
 Resonance #6
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #7
 S0: 1 3 4 5 6
 S1: 1 2 5
 Resonance #8
 S0: 1 3 4 5 6
 S1: 1 2 4
 Resonance #9
 S0: 1 3 4 5 6

```

S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5

```

The semigroup #7533

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 1 1
1 1 1 1 5 5
1 2 3 1 5 6

```

has #20 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #7556
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 1 4
1 1 1 1 5 5
1 2 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 4 5 6

```

S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 2 4 5 6
S1: 1 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5 6

S1: 1 2 3 4 5

The semigroup #7578

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 2 3 1 1 6

has #24 resonances.

Resonance #1

S0: 1 4 6
S1: 1 2 3 4 5

Resonance #2

S0: 1 4 5 6
S1: 1 2 3

Resonance #3

S0: 1 4 5 6
S1: 1 2 3 4

Resonance #4

S0: 1 3 4 6
S1: 1 2 4 5

Resonance #5

S0: 1 2 4 6
S1: 1 3 4 5

Resonance #6

S0: 1 4 5 6
S1: 1 2 3 4 5

Resonance #7

S0: 1 3 4 6
S1: 1 2 3 4 5

Resonance #8

S0: 1 2 4 6
S1: 1 2 3 4 5

Resonance #9

S0: 1 3 4 5 6
S1: 1 2

Resonance #10

S0: 1 2 4 5 6
S1: 1 3

Resonance #11

S0: 1 3 4 5 6
S1: 1 2 4

Resonance #12

S0: 1 3 4 5 6
S1: 1 2 3

Resonance #13

S0: 1 2 4 5 6
S1: 1 3 4

Resonance #14

S0: 1 2 4 5 6
S1: 1 2 3

Resonance #15

S0: 1 2 3 4 6
S1: 1 4 5

Resonance #16

S0: 1 3 4 5 6

```

S1: 1 2 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7579

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 4 1
1 1 1 4 4 2
1 2 3 1 2 6

```

has #11 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7580

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 4 1
1 1 1 4 5 1
1 2 3 1 1 6

```

has #15 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 4 5 6

```



```

S1: 1 2 3 4
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #7584
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 4 4
1 1 1 4 4 4
1 2 3 4 4 6
has #24 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #15
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7586

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 4 4
1 1 1 4 4 5
1 2 3 4 5 6

```

has #24 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7587

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 4 4
1 1 1 4 5 4
1 2 3 4 4 6
has #15 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #7588
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3

```

```

1 1 1 4 4 4
1 1 1 4 5 5
1 2 3 4 5 6
has #15 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #7600
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 2 3 1 1 6

```

has #20 resonances.

Resonance #1

S0: 1 4 6

S1: 1 2 3 5

Resonance #2

S0: 1 4 5 6

S1: 1 2 3

Resonance #3

S0: 1 3 4 6

S1: 1 2 5

Resonance #4

S0: 1 2 4 6

S1: 1 3 5

Resonance #5

S0: 1 3 4 6

S1: 1 2 3 5

Resonance #6

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #7

S0: 1 4 5 6

S1: 1 2 3 4 5

Resonance #8

S0: 1 3 4 5 6

S1: 1 2

Resonance #9

S0: 1 2 4 5 6

S1: 1 3

Resonance #10

S0: 1 2 3 4 6

S1: 1 5

Resonance #11

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #12

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #13

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #14

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #15

S0: 1 3 4 5 6

S1: 1 2 4 5

Resonance #16

S0: 1 2 4 5 6

S1: 1 3 4 5

Resonance #17

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #18

S0: 1 3 4 5 6

S1: 1 2 3 4 5

Resonance #19

S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #7605
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 1 3
1 1 1 4 5 4
1 1 1 5 4 5
1 2 3 4 5 6
has #19 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 4 6
S1: 1 3 5
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 4 6
S1: 1 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #15
S0: 1 3 4 5 6

```

```

S1: 1 2 4 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #7892
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 1 2 3
1 1 2 2 1 5
1 2 3 3 5 6
has #12 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6

```


S1: 1 2 3 4 5

The semigroup #7894

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 1 2 3
1 1 2 2 2 5
1 2 3 3 5 6

has #10 resonances.

Resonance #1

S0: 1 2 6

S1: 1 3 4 5

Resonance #2

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #6

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #7896

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 1 2 3
1 1 2 2 3 5
1 2 3 3 5 6

has #7 resonances.

Resonance #1

S0: 1 3 4 6

S1: 1 2 5

Resonance #2

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 3 4 6

```

S1: 1 2 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7898
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 1 2 4
1 1 2 2 1 5
1 2 3 4 5 6
has #22 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7899

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 1 2 4
1 1 2 2 2 5
1 2 3 4 5 6

```

has #20 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6

```

```

S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #7900

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 1 2 4
1 1 2 2 3 5
1 2 3 4 5 6

```

has #10 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 2 3 6

```

S1: 1 2 4 5
 Resonance #3
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #4
 S0: 1 2 3 5 6
 S1: 1 2 4
 Resonance #5
 S0: 1 2 3 4 6
 S1: 1 2 5
 Resonance #6
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #7
 S0: 1 2 3 4 6
 S1: 1 2 4 5
 Resonance #8
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #10
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #7901

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 1 2 3
 1 1 1 2 1 4
 1 1 2 1 1 5
 1 2 3 4 5 6

has #22 resonances.

Resonance #1
 S0: 1 2 6
 S1: 1 3 4 5
 Resonance #2
 S0: 1 2 6
 S1: 1 2 3 4 5
 Resonance #3
 S0: 1 2 4 6
 S1: 1 3 5
 Resonance #4
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #5
 S0: 1 2 4 6
 S1: 1 2 3 5
 Resonance #6
 S0: 1 2 3 6
 S1: 1 2 4 5
 Resonance #7
 S0: 1 2 5 6
 S1: 1 2 3 4 5
 Resonance #8
 S0: 1 2 4 6

```

S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7902
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 1 4
1 1 2 1 2 5
1 2 3 4 5 6
has #22 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 6
S1: 1 3 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7903

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 1 4
1 1 2 1 3 5
1 2 3 4 5 6

```

has #10 resonances.

Resonance #1

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 3 5 6

S1: 1 4

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #7907

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 2 4
1 1 2 2 1 5
1 2 3 4 5 6

```

has #20 resonances.

Resonance #1

S0: 1 2 6

S1: 1 3 4 5

Resonance #2

S0: 1 2 6


```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7908

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 2 4
1 1 2 2 2 5
1 2 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6

```

S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7909

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 2 4
1 1 2 2 3 5
1 2 3 4 5 6

```

has #9 resonances.

```

Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7910

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 2 3 4
1 1 2 3 4 5
1 2 3 4 5 6

```

has #4 resonances.

```

Resonance #1
S0: 1 2 4 6

```

```

S1: 1 3 5
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7911
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 4 1 1
1 1 2 1 1 5
1 2 3 1 5 6
has #16 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 4 6
S1: 1 3 5
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7912

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 4 1 1
1 1 2 1 2 5
1 2 3 1 5 6

```

has #12 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #7913

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 4 1 1
1 1 2 1 3 5
1 2 3 1 5 6
has #6 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7914
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 4 1 4
1 1 2 1 1 5
1 2 3 4 5 6
has #16 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 4 6
S1: 1 3 5
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 6

```

```

S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7915
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 4 1 4
1 1 2 1 2 5
1 2 3 4 5 6
has #12 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7916
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 4 1 4
1 1 2 1 3 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #7917
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 2 3
1 1 1 4 4 4
1 1 2 4 4 5
1 2 3 4 5 6
has #10 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 6

```



```

S1: 1 2 4 5
Resonance #4
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

```

*****

```

The semigroup #7948

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 1 3 2
1 1 3 3 5 1
1 2 1 2 1 6

```

has #8 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

```

*****

```

The semigroup #7952

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 2 1 4
1 1 3 1 5 1
1 2 1 4 1 6
has #12 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #7953
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 4 1 1
1 1 3 1 5 1
1 2 1 1 1 6
has #14 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6

```

```

S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #7957

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 4 1 4
1 1 3 1 5 1
1 2 1 4 1 6

```

has #13 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6

```

```

S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #7961

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 1
1 1 1 4 4 4
1 1 3 4 5 4
1 2 1 4 4 6

```

has #12 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6

```

```

S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #8019
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 1 3 3
1 1 3 3 5 5
1 2 3 3 5 6
has #14 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 5 6

```

```

S1: 1 3 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8025

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 1 3 4
1 1 3 3 5 5
1 2 3 4 5 6

```

has #14 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #8031
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 1 4 4
1 1 3 4 5 5
1 2 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 5 6

```

```

S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8036

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 2 1 4
1 1 3 1 5 5
1 2 3 4 5 6

```

has #11 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 5 6

```


S1: 1 2 3 4 5

The semigroup #8037

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 2 3 4
1 1 3 3 5 5
1 2 3 4 5 6

has #6 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #4

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #8038

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 3 4 4
1 1 3 4 5 5
1 2 3 4 5 6

has #10 resonances.

Resonance #1

S0: 1 3 5 6

S1: 1 2 4

Resonance #2

S0: 1 3 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 3 4 5 6

S1: 1 2

Resonance #4

S0: 1 2 3 5 6

S1: 1 4

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #7

S0: 1 2 3 5 6

```

S1: 1 2 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8040
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 4 1 1
1 1 3 1 5 5
1 2 3 1 5 6
has #12 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8043

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 4 1 4
1 1 3 1 5 5
1 2 3 4 5 6
has #12 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8046
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 1 3 3
1 1 1 4 4 4
1 1 3 4 5 5
1 2 3 4 5 6
has #11 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6

```

```

S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8117

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 3
1 1 2 1 2 4
1 1 2 2 1 5
1 2 3 4 5 6

```

has #20 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6

```

```

S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8118

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 3
1 1 2 1 2 4
1 1 2 2 2 5
1 2 3 4 5 6

```

has #20 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6

```

```

S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8119
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 3

```

1 1 2 2 1 4
1 1 2 1 2 5
1 2 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8121

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 3
1 1 2 2 2 4
1 1 2 2 2 4
1 2 3 4 4 6

```

has #10 resonances.

Resonance #1

```

S0: 1 2 6
S1: 1 3 4 5

```

Resonance #2

```

S0: 1 2 6
S1: 1 2 3 4 5

```

Resonance #3

```

S0: 1 2 3 6
S1: 1 2 4 5

```

Resonance #4

```

S0: 1 2 4 6
S1: 1 2 3 4 5

```

Resonance #5

```

S0: 1 2 3 6
S1: 1 2 3 4 5

```

Resonance #6

```

S0: 1 2 4 5 6
S1: 1 2 3

```

Resonance #7

```

S0: 1 2 4 5 6
S1: 1 2 3 4

```

Resonance #8

```

S0: 1 2 3 4 6
S1: 1 2 4 5

```

Resonance #9

```

S0: 1 2 4 5 6
S1: 1 2 3 4 5

```

Resonance #10

```

S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #8123

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 3
1 1 2 2 2 4
1 1 2 2 2 5
1 2 3 4 5 6

```

has #20 resonances.

Resonance #1

```

S0: 1 2 6

```


S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #8124

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 3
1 1 2 3 3 4
1 1 2 3 3 4
1 2 3 4 4 6

has #4 resonances.

Resonance #1

S0: 1 3 6

S1: 1 2 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #3

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #8126

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 2 2 3
1 1 2 3 3 4
1 1 2 3 3 5
1 2 3 4 5 6

has #7 resonances.

Resonance #1

S0: 1 3 6

S1: 1 2 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #3

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #8128

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 3 3 1

```

1 1 3 4 4 1
1 1 3 4 4 1
1 2 1 1 1 6
has #11 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8129
1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 3 3 1
1 1 3 4 4 1
1 1 3 4 4 2
1 2 1 1 2 6
has #5 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6

```

S1: 1 2 3 6
 Resonance #5
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #8130

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 3 3 1
 1 1 3 4 4 1
 1 1 3 4 5 1
 1 2 1 1 1 6

has #8 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 3 4 5 6

S1: 1 2

Resonance #3

S0: 1 2 4 5 6

S1: 1 3

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 6

Resonance #8

S0: 1 3 4 5 6

S1: 1 2 3 4 5

The semigroup #8132

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 1 3 3 1
 1 1 3 4 5 1
 1 1 3 5 4 1
 1 2 1 1 1 6

has #11 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 3 4 6

S1: 1 2 3 5

Resonance #3

S0: 1 3 4 5 6

S1: 1 2

Resonance #4

S0: 1 2 4 5 6

```

S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

The semigroup #8160

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 2 3 4 4 6

```

has #10 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8162

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 4 5
1 2 3 4 5 6

```

has #10 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 3 4 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 3 4 5 6

S1: 1 2

Resonance #4

S0: 1 2 4 5 6

S1: 1 3

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #7

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #8

S0: 1 2 3 4 6

S1: 1 3 4 5

Resonance #9

S0: 1 3 4 5 6

S1: 1 2 3 4 5

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #8163

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 5 4
1 2 3 4 4 6

```

has #7 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 3 4 5 6

```

S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8164

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 3 3 3
1 1 3 4 4 4
1 1 3 4 5 5
1 2 3 4 5 6
has #7 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #8169

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 1 3 3 3
1 1 3 4 5 4
1 1 3 5 4 5
1 2 3 4 5 6
has #9 resonances.

```

```

Resonance #1
S0: 1 4 5 6

```

```

S1: 1 2 3
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8191
1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 2 1 4
1 1 1 1 2 5
1 2 3 4 5 6
has #26 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6

```



```

S1: 1 2 4 5
Resonance #9
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 3
Resonance #13
S0: 1 2 3 5 6
S1: 1 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8192

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 2 1 4
1 1 1 1 5 1
1 2 3 4 1 6
has #16 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #8193

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 2 1 4
1 1 1 1 5 5
1 2 3 4 5 6
has #16 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #8198

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 2 2 4
1 1 1 2 2 4
1 2 3 4 4 6
has #12 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 3
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8200
1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 2 2 4
1 1 1 2 2 5
1 2 3 4 5 6
has #22 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 3
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 5 6

S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5

The semigroup #8203

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 1 1
1 1 1 1 5 1
1 2 3 1 1 6

has #8 resonances.

Resonance #1
S0: 1 2 4 5 6
S1: 1 3

Resonance #2
S0: 1 2 4 5 6
S1: 1 3 5

Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4

Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3

Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4 5

Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5

Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4

Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 5

The semigroup #8204

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 1 1
1 1 1 1 5 5
1 2 3 1 5 6

has #8 resonances.

Resonance #1
S0: 1 2 4 5 6
S1: 1 3

Resonance #2
S0: 1 2 4 5 6
S1: 1 3 5

Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4

Resonance #4
S0: 1 2 4 5 6

```

S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8208
1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 1 4
1 1 1 1 5 5
1 2 3 4 5 6
has #8 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8212
1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 2 3 1 1 6
has #11 resonances.
Resonance #1
S0: 1 2 4 6

```

```

S1: 1 3 4 5
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8213

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 4 1
1 1 1 4 4 2
1 2 3 1 2 6

```

has #8 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6

```



```

S1: 1 2 4 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8214

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 4 1
1 1 1 4 5 1
1 2 3 1 1 6

```

has #6 resonances.

```

Resonance #1
S0: 1 2 4 5 6
S1: 1 3

```

```

Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4

```

```

Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3

```

```

Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5

```

```

Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4

```

```

Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5

```

The semigroup #8216

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 4 4
1 1 1 4 4 4
1 2 3 4 4 6

```

has #11 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 4 5

```

```

Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5

```

```

Resonance #3
S0: 1 2 4 5 6
S1: 1 3

```

```

Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4

```

```

Resonance #5
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #8218

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 4 4
1 1 1 4 4 5
1 2 3 4 5 6

```

has #11 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 4 5 6

```

S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5

The semigroup #8219

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 4 4
1 1 1 4 5 4
1 2 3 4 4 6

has #6 resonances.

Resonance #1
S0: 1 2 4 5 6
S1: 1 3

Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4

Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3

Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5

Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4

Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5

The semigroup #8220

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 4 4
1 1 1 4 5 5
1 2 3 4 5 6

has #6 resonances.

Resonance #1
S0: 1 2 4 5 6
S1: 1 3

Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4

Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3

Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5

Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4

Resonance #6
S0: 1 2 4 5 6

S1: 1 2 3 4 5

The semigroup #8224

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 2 3 1 1 6

has #10 resonances.

Resonance #1

S0: 1 2 4 6

S1: 1 3 5

Resonance #2

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #3

S0: 1 2 4 5 6

S1: 1 3

Resonance #4

S0: 1 2 3 4 6

S1: 1 5

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #7

S0: 1 2 4 5 6

S1: 1 3 4 5

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #9

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 5 6

The semigroup #8226

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 1 3
1 1 1 4 5 4
1 1 1 5 4 5
1 2 3 4 5 6

has #9 resonances.

Resonance #1

S0: 1 2 4 6

S1: 1 3 5

Resonance #2

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #3

S0: 1 2 4 5 6

```

S1: 1 3
Resonance #4
S0: 1 2 3 4 6
S1: 1 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8246
1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 2 3
1 1 1 2 2 4
1 1 2 2 2 5
1 2 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8247

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 2 3
1 1 1 4 1 1
1 1 2 1 2 3
1 2 3 1 3 6

```

has #7 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8249
1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 2 3
1 1 1 4 1 1
1 1 2 1 2 5
1 2 3 1 5 6
has #12 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8250
1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 2 3
1 1 1 4 1 4
1 1 2 1 2 3
1 2 3 4 3 6

```

has #6 resonances.

Resonance #1

S0: 1 2 4 6

S1: 1 3 5

Resonance #2

S0: 1 2 4 6

S1: 1 3 4 5

Resonance #3

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #4

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #6

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #8252

1 1 1 1 1 1

1 1 1 1 1 2

1 1 2 1 2 3

1 1 1 4 1 4

1 1 2 1 2 5

1 2 3 4 5 6

has #12 resonances.

Resonance #1

S0: 1 2 4 6

S1: 1 3 5

Resonance #2

S0: 1 2 4 6

S1: 1 3 4 5

Resonance #3

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #4

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 5

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #10

S0: 1 2 3 4 6


```

S1: 1 2 3 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8253

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 1 2 3
1 1 1 4 4 4
1 1 2 4 4 5
1 2 3 4 5 6

```

has #7 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #8269

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 2 2 3
1 1 2 2 2 3
1 1 2 2 2 3
1 2 3 3 3 6

```

has #9 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8273
1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 2 2 3
1 1 2 2 2 3
1 1 2 2 2 5
1 2 3 3 5 6
has #10 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8276

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 2 2 2 3
1 1 2 2 2 4
1 1 2 2 2 5
1 2 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 6

```

S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8277

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 1 1
1 1 1 1 5 1
1 2 1 1 1 6
has #8 resonances.

```

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #8278

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 1 1
1 1 1 1 5 5
1 2 1 1 5 6
has #8 resonances.

```

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #8287

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 1 4
1 1 1 1 5 5
1 2 1 4 5 6

```

has #8 resonances.

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #8295

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1

```

```

1 1 1 4 4 1
1 1 1 4 4 1
1 2 1 1 1 6
has #13 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #8296

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 4 1
1 1 1 4 4 2
1 2 1 1 2 6
has #5 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8297

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 4 1
1 1 1 4 5 1
1 2 1 1 1 6
has #6 resonances.

```

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2

```

```

Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4

```

```

Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3

```

```

Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5

```

```

Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4

```

```

Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

```

*****
The semigroup #8299

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 2 1 4 4 6
has #13 resonances.

```

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5

```

```

Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5

```

```

Resonance #3
S0: 1 3 4 5 6
S1: 1 2

```

```

Resonance #4
S0: 1 3 4 5 6

```

```

S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8301

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 4 5
1 2 1 4 5 6

```

has #12 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6

```



```

S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8302

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 5 4
1 2 1 4 4 6

```

has #6 resonances.

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #8303

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 5 5
1 2 1 4 5 6

```

has #6 resonances.

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8308
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 5 1
1 1 1 5 4 1
1 2 1 1 1 6
has #12 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 6
S1: 1 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6

The semigroup #8311

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 1
1 1 1 4 5 4
1 1 1 5 4 5
1 2 1 4 5 6

has #10 resonances.

Resonance #1

S0: 1 3 4 6

S1: 1 2 5

Resonance #2

S0: 1 3 4 6

S1: 1 2 3 5

Resonance #3

S0: 1 3 4 5 6

S1: 1 2

Resonance #4

S0: 1 2 3 4 6

S1: 1 5

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #7

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #8

S0: 1 3 4 5 6

S1: 1 2 4 5

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #10

S0: 1 3 4 5 6

S1: 1 2 3 4 5

The semigroup #8386

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 1 4
1 1 1 1 5 5
1 2 3 4 5 6

has #8 resonances.

Resonance #1

S0: 1 3 4 5 6

S1: 1 2

Resonance #2

S0: 1 3 4 5 6

S1: 1 2 5

Resonance #3

S0: 1 3 4 5 6

```

S1: 1 2 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8394

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 2 3 1 1 6

```

has #12 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8395
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 4 2
1 2 3 1 2 6
has #4 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8396
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 5 1
1 2 3 1 1 6
has #6 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8400
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3

```

```

1 1 1 4 4 4
1 1 1 4 4 4
1 2 3 4 4 6
has #12 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8402

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 4 5
1 2 3 4 5 6
has #12 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8403
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 5 4
1 2 3 4 4 6
has #6 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8404

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 5 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8409
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 2 3 1 1 6
has #11 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 6
S1: 1 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6

```



```

S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #8412

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 1 3
1 1 1 4 5 4
1 1 1 5 4 5
1 2 3 4 5 6
has #10 resonances.

```

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 6
S1: 1 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8473

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 3 1
1 1 1 4 4 1
1 1 3 4 5 1
1 2 1 1 1 6

```

```

has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8474

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 3 1
1 1 1 4 4 4
1 1 3 4 5 4
1 2 1 4 4 6

```

```

has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8527

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 1 3 3
1 1 1 4 4 4
1 1 3 4 5 5
1 2 3 4 5 6

```

has #5 resonances.

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6

```

```

S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8658
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 1
1 1 3 3 3 1
1 2 1 1 1 6
has #22 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6

```

S1: 1 3 4 5
 Resonance #15
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #16
 S0: 1 2 3 4 6
 S1: 1 3 4 5
 Resonance #17
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #18
 S0: 1 3 4 5 6
 S1: 1 2 3 4 5
 Resonance #19
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #20
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #21
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #22
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #8659

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 3 3 3 1
 1 1 3 3 3 1
 1 1 3 3 3 2
 1 2 1 1 2 6

has #11 resonances.

Resonance #1
 S0: 1 3 6
 S1: 1 2 3 4 5
 Resonance #2
 S0: 1 3 4 6
 S1: 1 2 3 5
 Resonance #3
 S0: 1 3 4 6
 S1: 1 2 3 4 5
 Resonance #4
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 3 5 6
 S1: 1 3 4
 Resonance #6
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #7
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #8
 S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #8660

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 1
1 1 3 3 4 1
1 2 1 1 1 6

```

has #11 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #8661

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1

```

```

1 1 3 3 3 1
1 1 3 3 4 2
1 2 1 1 2 6
has #5 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8662
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 1
1 1 3 3 5 1
1 2 1 1 1 6
has #12 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8665

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 2
1 1 3 3 3 2
1 2 1 2 2 6

```

has #8 resonances.

```

Resonance #1
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8666

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 2
1 1 3 3 5 1
1 2 1 2 1 6

```

has #5 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6

```

S1: 1 2 3 4
 Resonance #4
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #5
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5

The semigroup #8668

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 3 3 3 1
 1 1 3 3 4 1
 1 1 3 4 5 1
 1 2 1 1 1 6

has #8 resonances.

Resonance #1

S0: 1 3 5 6
 S1: 1 2 3 4

Resonance #2

S0: 1 3 4 5 6
 S1: 1 2

Resonance #3

S0: 1 3 4 5 6
 S1: 1 2 3

Resonance #4

S0: 1 2 3 5 6
 S1: 1 3 4

Resonance #5

S0: 1 3 4 5 6
 S1: 1 2 3 4

Resonance #6

S0: 1 2 3 5 6
 S1: 1 2 3 4

Resonance #7

S0: 1 3 4 5 6
 S1: 1 2 3 4 5

Resonance #8

S0: 1 2 3 5 6
 S1: 1 2 3 4 6

The semigroup #8669

1 1 1 1 1 1
 1 1 1 1 1 2
 1 1 3 3 3 1
 1 1 3 4 3 1
 1 1 3 3 5 1
 1 2 1 1 1 6

has #5 resonances.

Resonance #1

S0: 1 3 4 5 6
 S1: 1 2

Resonance #2

S0: 1 3 4 5 6
 S1: 1 2 3

Resonance #3

S0: 1 3 4 5 6


```

S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #8671

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1
1 1 3 4 4 1
1 1 3 4 4 1
1 2 1 1 1 6

```

has #7 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #8672

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1
1 1 3 4 4 1
1 1 3 4 4 2
1 2 1 1 2 6

```

has #2 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #8673

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1

```

```

1 1 3 4 4 1
1 1 3 4 5 1
1 2 1 1 1 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8675
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 1
1 1 3 4 5 1
1 1 3 5 4 1
1 2 1 1 1 6
has #7 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #8689
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 3
1 2 3 3 3 6
has #22 resonances.
Resonance #1
S0: 1 3 6

```

S1: 1 2 3 4 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8693
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 5
1 2 3 3 5 6
has #20 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6

```

```

S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8696
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 4 3
1 2 3 3 3 6
has #11 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8697
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 3
1 2 3 3 3 6
has #12 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #8699
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 5
1 2 3 3 5 6

```

has #11 resonances.

Resonance #1

S0: 1 3 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 3 5 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 3 4 5 6

S1: 1 2

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 3 5

Resonance #7

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #8

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #10

S0: 1 3 4 5 6

S1: 1 2 3 4 5

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #8714

1 1 1 1 1 1

1 1 1 1 1 2

1 1 3 3 3 3

1 1 3 3 3 4

1 1 3 3 3 4

1 2 3 4 4 6

has #10 resonances.

Resonance #1

S0: 1 3 6

S1: 1 2 3 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 3 4 5

Resonance #3

S0: 1 3 4 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 3 4 5 6

```

S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8716
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 3 5
1 2 3 4 5 6
has #20 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6

```



```

S1: 1 3 5
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8717

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 5
1 2 3 4 5 6

```

has #10 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6

```

```

S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8718

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 5 3
1 2 3 4 3 6

```

has #11 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8719

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3

```

```

1 1 3 3 3 4
1 1 3 3 5 5
1 2 3 4 5 6
has #11 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #8734
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 4 3
1 1 3 4 5 3
1 2 3 3 3 6
has #8 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6

```

```

S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #8737

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 4 5 5
1 2 3 4 5 6
has #7 resonances.

```

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8741

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 3 3
1 1 3 3 5 3
1 2 3 3 3 6
has #5 resonances.

```

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #8742

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 3 3
1 1 3 3 5 5
1 2 3 3 5 6
has #5 resonances.

```

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2

```

```

Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3

```

```

Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 5

```

```

Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4

```

```

Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 5

```

The semigroup #8748

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 3 4
1 1 3 3 5 5
1 2 3 4 5 6
has #5 resonances.

```

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2

```

```

Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3

```

```

Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 5

```

```

Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4

```

```

Resonance #5
S0: 1 3 4 5 6

```

S1: 1 2 3 4 5

The semigroup #8753

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 4 3
1 1 3 4 4 3
1 2 3 3 3 6

has #7 resonances.

Resonance #1

S0: 1 3 4 6
S1: 1 2 3 4 5

Resonance #2

S0: 1 3 4 5 6
S1: 1 2

Resonance #3

S0: 1 3 4 5 6
S1: 1 2 3

Resonance #4

S0: 1 3 4 5 6
S1: 1 2 3 4

Resonance #5

S0: 1 2 3 4 6
S1: 1 3 4 5

Resonance #6

S0: 1 3 4 5 6
S1: 1 2 3 4 5

Resonance #7

S0: 1 2 3 4 6
S1: 1 2 3 4 5

The semigroup #8754

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 4 3
1 1 3 4 5 3
1 2 3 3 3 6

has #4 resonances.

Resonance #1

S0: 1 3 4 5 6
S1: 1 2

Resonance #2

S0: 1 3 4 5 6
S1: 1 2 3

Resonance #3

S0: 1 3 4 5 6
S1: 1 2 3 4

Resonance #4

S0: 1 3 4 5 6
S1: 1 2 3 4 5

The semigroup #8756

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3

```

1 1 3 4 4 4
1 1 3 4 4 4
1 2 3 4 4 6
has #7 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8758
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 5
1 2 3 4 5 6
has #7 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #8759

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 5 4
1 2 3 4 4 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8760
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 5 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8765
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 5 3
1 1 3 5 4 3
1 2 3 3 3 6
has #7 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6

```



```

S1: 1 2 3
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #8767
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 3 3
1 1 3 4 5 4
1 1 3 5 4 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8795
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 5 1
1 1 3 3 5 1
1 1 5 5 3 1
1 2 1 1 1 6
has #10 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #4
S0: 1 2 3 4 6
S1: 1 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #8798

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 5 1
1 1 3 3 5 2
1 1 5 5 3 1
1 2 1 2 1 6

```

has #5 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #8801

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 5 1
1 1 3 4 5 1
1 1 5 5 3 1
1 2 1 1 1 6

```

has #7 resonances.

```

Resonance #1
S0: 1 3 4 6

```

```

S1: 1 2 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 6
S1: 1 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8808
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 5 3
1 1 3 3 5 3
1 1 5 5 3 5
1 2 3 3 5 6
has #9 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 6
S1: 1 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #8814

```

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 5 3
1 1 3 3 5 4
1 1 5 5 3 5
1 2 3 4 5 6
has #9 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 4 6
S1: 1 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #8819
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 5 3
1 1 3 4 5 3
1 1 5 5 3 5
1 2 3 3 5 6
has #6 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 6
S1: 1 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 3 4 5 6

```

S1: 1 2 3 5
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5

The semigroup #8822

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 3 5 3
1 1 3 4 5 4
1 1 5 5 3 5
1 2 3 4 5 6

has #6 resonances.

Resonance #1

S0: 1 3 4 6

S1: 1 2 5

Resonance #2

S0: 1 3 4 5 6

S1: 1 2

Resonance #3

S0: 1 2 3 4 6

S1: 1 5

Resonance #4

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 3 5

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 3 4 5

The semigroup #8840

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 4 4 1
1 1 4 3 3 1
1 1 4 3 3 1
1 2 1 1 1 6

has #10 resonances.

Resonance #1

S0: 1 3 6

S1: 1 2 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 4 5

Resonance #3

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #4

S0: 1 3 4 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 3 6

S1: 1 2 4 5 6

Resonance #6

S0: 1 3 4 5 6

```

S1: 1 2
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8841

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 4 4 1
1 1 4 3 3 1
1 1 4 3 3 2
1 2 1 1 2 6
has #5 resonances.

```

Resonance #1

```

S0: 1 3 6
S1: 1 2 4 5

```

Resonance #2

```

S0: 1 2 3 6
S1: 1 2 4 5

```

Resonance #3

```

S0: 1 3 4 6
S1: 1 2 3 4 5

```

Resonance #4

```

S0: 1 2 3 6
S1: 1 2 4 5 6

```

Resonance #5

```

S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8851

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 4 4 3
1 1 4 3 3 4
1 1 4 3 3 4
1 2 3 4 4 6
has #9 resonances.

```

Resonance #1

```

S0: 1 3 6
S1: 1 2 4 5

```

Resonance #2

```

S0: 1 2 3 6
S1: 1 4 5

```

Resonance #3

```

S0: 1 2 3 6
S1: 1 2 4 5

```

Resonance #4

```

S0: 1 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8853

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 4 4 3
1 1 4 3 3 4
1 1 4 3 3 5
1 2 3 4 5 6
has #9 resonances.

```

```

Resonance #1
S0: 1 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 3 4 5 6
S1: 1 2
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #8880

```

1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 4 5 1

```

```

1 1 4 5 3 1
1 1 5 3 4 1
1 2 1 1 1 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #8897
1 1 1 1 1 1
1 1 1 1 1 2
1 1 3 4 5 3
1 1 4 5 3 4
1 1 5 3 4 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #9543
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 1 2 2
1 2 2 2 5 5
1 2 2 2 5 5
has #18 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6

```


S1: 1 2 3 5
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #10
 S0: 1 2 3 5 6
 S1: 1 2 4 5
 Resonance #11
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #12
 S0: 1 2 3 4 5
 S1: 1 2 5 6
 Resonance #13
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #14
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #15
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #16
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #17
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #18
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #9544

1 1 1 1 1 1
 1 1 1 1 2 2
 1 1 1 1 2 2
 1 1 1 1 2 2
 1 2 2 2 5 5
 1 2 2 2 5 6

has #13 resonances.

Resonance #1

S0: 1 5 6
 S1: 1 2 3 4

Resonance #2

S0: 1 2 5 6
 S1: 1 2 3 4

Resonance #3

S0: 1 2 5 6
 S1: 1 2 3 4 5

Resonance #4

S0: 1 2 4 5 6
 S1: 1 2 3

Resonance #5

S0: 1 2 3 5 6
 S1: 1 2 4

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 5
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #8
 S0: 1 2 3 5 6
 S1: 1 2 4 5
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #10
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #11
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #12
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #13
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5

The semigroup #9550

1 1 1 1 1 1
 1 1 1 1 2 2
 1 1 1 1 2 2
 1 1 1 1 2 2
 1 2 2 2 5 6
 1 2 2 2 6 5

has #17 resonances.

Resonance #1
 S0: 1 5 6
 S1: 1 2 3 4
 Resonance #2
 S0: 1 2 5
 S1: 1 2 3 4 6
 Resonance #3
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #4
 S0: 1 2 4 5
 S1: 1 2 3 6
 Resonance #5
 S0: 1 2 3 5
 S1: 1 2 4 6
 Resonance #6
 S0: 1 2 4 5
 S1: 1 2 3 4 6
 Resonance #7
 S0: 1 2 3 5
 S1: 1 2 3 4 6
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #9
 S0: 1 2 3 5 6

```

S1: 1 2 4
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #9571

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 1 2 3
1 2 2 2 5 5
1 2 2 3 5 5

```

has #8 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6

The semigroup #9573

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 1 2 4
1 2 2 2 5 5
1 2 2 4 5 6

has #11 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 5

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #8

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #10

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #9583

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 1 4 4
1 2 2 4 5 5
1 2 2 4 5 5

has #11 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 4 5 6

```

S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #9584

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 1 4 4
1 2 2 4 5 5
1 2 2 4 5 6

```

has #10 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #9587
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 1 4 4
1 2 2 4 5 6
1 2 2 4 6 5
has #12 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9601

```

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 2 4 4
1 2 2 4 5 5
1 2 2 4 5 5
has #8 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #9602
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 2 4 4
1 2 2 4 5 5
1 2 2 4 5 6
has #7 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6

```

S1: 1 2 3 4
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5

The semigroup #9605

1 1 1 1 1 1
 1 1 1 1 2 2
 1 1 1 1 2 2
 1 1 1 2 4 4
 1 2 2 4 5 6
 1 2 2 4 6 5

has #9 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 2 3 5 6

S1: 1 4

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #8

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #9611

1 1 1 1 1 1
 1 1 1 1 2 2
 1 1 1 1 2 2
 1 1 1 4 1 1
 1 2 2 1 5 5
 1 2 2 1 5 5

has #11 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 4 5


```

S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #9612
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 4 1 1
1 2 2 1 5 5
1 2 2 1 5 6
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #9615

```

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 4 1 1
1 2 2 1 5 6
1 2 2 1 6 5
has #11 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #9621

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 4 1 4
1 2 2 1 5 5
1 2 2 4 5 6
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #9624

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 4 4 4
1 2 2 4 5 5
1 2 2 4 5 5
has #6 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #9625

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 4 4 4
1 2 2 4 5 5
1 2 2 4 5 6
has #5 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #9628

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 2
1 1 1 4 4 4
1 2 2 4 5 6
1 2 2 4 6 5

```

has #7 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #9708

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 3
1 1 1 1 2 3
1 2 2 2 5 5
1 2 3 3 5 6

```

has #5 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #9712

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 3
1 1 1 1 2 4
1 2 2 2 5 5
1 2 3 4 5 6

has #11 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 5

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #8

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #10

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #9716

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 3
1 1 1 1 4 4
1 2 2 4 5 5
1 2 3 4 5 6

has #10 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 4 5 6

```

S1: 1 2 3
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #9719
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 3
1 1 1 2 4 4
1 2 2 4 5 5
1 2 3 4 5 6
has #7 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #9721

```

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 3
1 1 1 4 1 1
1 2 2 1 5 5
1 2 3 1 5 6
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #9723
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 3
1 1 1 4 1 4
1 2 2 1 5 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #9725
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 2 3

```

```

1 1 1 4 4 4
1 2 2 4 5 5
1 2 3 4 5 6
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #9763
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 1 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #19 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 5 6

```



```

S1: 1 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
*****

```

The semigroup #9764

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 1 4 4
1 2 3 4 5 5
1 2 3 4 5 6

```

has #19 resonances.

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 5 6
S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6

```

```

S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
*****

```

The semigroup #9766

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 1 4 4
1 2 3 4 5 6
1 2 3 4 6 5

```

has #20 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 4 5 6

S1: 1 2 3

Resonance #3

S0: 1 3 5 6

S1: 1 2 4

Resonance #4

S0: 1 2 5 6

```

S1: 1 3 4
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 3 4 5 6
S1: 1 2
Resonance #9
S0: 1 2 4 5 6
S1: 1 3
Resonance #10
S0: 1 2 3 5 6
S1: 1 4
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9768
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 2 4 4
1 2 3 4 5 5
1 2 3 4 5 5

```

has #9 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 4 5 6

S1: 1 3

Resonance #4

S0: 1 2 3 5 6

S1: 1 4

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4

The semigroup #9769

1 1 1 1 1 1

1 1 1 1 2 2

1 1 1 1 3 3

1 1 1 2 4 4

1 2 3 4 5 5

1 2 3 4 5 6

has #9 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 4 5 6

S1: 1 3

Resonance #4

S0: 1 2 3 5 6

S1: 1 4

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #6

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #7

S0: 1 2 3 5 6

```

S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
*****

```

The semigroup #9771

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 2 4 4
1 2 3 4 5 6
1 2 3 4 6 5

```

has #10 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #9773

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 4 1 1
1 2 3 1 5 5
1 2 3 1 5 5

```

has #11 resonances.

```

Resonance #1
S0: 1 4 5 6

```

```

S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #9774

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 4 1 1
1 2 3 1 5 5
1 2 3 1 5 6

```

has #10 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6

```

```

S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #9776
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 4 1 1
1 2 3 1 5 6
1 2 3 1 6 5
has #12 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6

The semigroup #9778

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 4 1 4
1 2 3 1 5 5
1 2 3 4 5 6

has #10 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 3 4 5 6

S1: 1 2

Resonance #4

S0: 1 2 4 5 6

S1: 1 3

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 4

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 3

Resonance #7

S0: 1 2 4 5 6

S1: 1 3 4

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #9

S0: 1 3 4 5 6

S1: 1 2 3 4

Resonance #10

S0: 1 2 4 5 6

S1: 1 2 3 4

The semigroup #9780

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5

has #10 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 3 4 5 6


```

S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
*****

```

The semigroup #9781

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6

```

has #10 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #9783
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 3
1 1 1 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #11 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6
S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9905
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 1 3 4
1 1 1 1 4 3
1 2 3 4 5 6
1 2 4 3 6 5
has #8 resonances.
Resonance #1
S0: 1 5 6

```

```

S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9906
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 1 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #8 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #9907

```

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 1 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #8 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #9909
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 1 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #9 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #9910

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 2 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #6 resonances.

```

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
*****

```

The semigroup #9911

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 2 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #6 resonances.

```

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #9913
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 2 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #7 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9914
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 3 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #3 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #9915

```

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 3 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #9917
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 2 3 3
1 1 2 3 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #4 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9918
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 3 1 3
1 1 3 4 1 4
1 2 1 1 5 5
1 2 3 4 5 6
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6

```

```

S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
*****

```

The semigroup #9922

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 3 3 3
1 1 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5

```

has #6 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
*****

```

The semigroup #9923

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 3 3 3
1 1 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6

```

has #6 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6

```


S1: 1 2 3
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #6
 S0: 1 3 4 5 6
 S1: 1 2 3 4

The semigroup #9925

1 1 1 1 1 1
 1 1 1 1 2 2
 1 1 1 3 3 3
 1 1 3 4 4 4
 1 2 3 4 5 6
 1 2 3 4 6 5

has #7 resonances.

Resonance #1
 S0: 1 4 5 6
 S1: 1 2 3
 Resonance #2
 S0: 1 3 4 5 6
 S1: 1 2
 Resonance #3
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 3
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #6
 S0: 1 3 4 5 6
 S1: 1 2 3 4
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #9935

1 1 1 1 1 1
 1 1 1 1 2 2
 1 1 2 1 3 3
 1 1 1 2 4 4
 1 2 3 4 5 5
 1 2 3 4 5 5

has #8 resonances.

Resonance #1
 S0: 1 2 5 6
 S1: 1 3 4
 Resonance #2
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #3
 S0: 1 2 4 5 6
 S1: 1 3
 Resonance #4
 S0: 1 2 3 5 6

```

S1: 1 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
*****

```

The semigroup #9936

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 2 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #8 resonances.

```

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4

```

The semigroup #9938

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 2 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #9 resonances.

```

```

Resonance #1
S0: 1 2 5 6

```

```

S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9939
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 4 1 1
1 2 3 1 5 5
1 2 3 1 5 5
has #5 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #9940
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 4 1 1
1 2 3 1 5 5
1 2 3 1 5 6

```

```

has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #9942
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 4 1 1
1 2 3 1 5 6
1 2 3 1 6 5
has #6 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9943
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 4 1 4
1 2 3 1 5 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #9944
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #9945
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #9947
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 1 3 3
1 1 1 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #5 resonances.
Resonance #1
S0: 1 2 4 5 6

```

```

S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9963
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #5 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #9964
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 3 3
1 2 3 3 5 5
1 2 3 3 5 6
has #4 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5

The semigroup #9967

1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 3 3
1 2 3 3 5 6
1 2 3 3 6 5

has #6 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #9973

1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 3 4
1 2 3 3 5 5
1 2 3 4 5 6

has #4 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #9976

1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 4 4
1 2 3 4 5 5
1 2 3 4 5 5

```

has #6 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4

```

```

*****
The semigroup #9977
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 4 4
1 2 3 4 5 5
1 2 3 4 5 6

```

```

has #6 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4

```

```

*****
The semigroup #9979
1 1 1 1 1 1
1 1 1 1 2 2
1 1 2 2 3 3
1 1 2 2 4 4
1 2 3 4 5 6
1 2 3 4 6 5

```

```

has #7 resonances.
Resonance #1
S0: 1 2 5 6

```


S1: 1 3 4
 Resonance #2
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #3
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #4
 S0: 1 2 3 5 6
 S1: 1 2 4
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #6
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #9981

1 1 1 1 1 1
 1 1 1 1 2 2
 1 1 2 2 3 4
 1 1 2 2 4 3
 1 2 3 4 5 6
 1 2 4 3 6 5

has #5 resonances.

Resonance #1

S0: 1 2 5 6
 S1: 1 3 4

Resonance #2

S0: 1 2 5 6
 S1: 1 2 3 4

Resonance #3

S0: 1 2 4 5
 S1: 1 2 3 6

Resonance #4

S0: 1 2 3 5
 S1: 1 2 4 6

Resonance #5

S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #9982

1 1 1 1 1 1
 1 1 1 1 2 2
 1 1 3 1 1 1
 1 1 1 4 1 1
 1 2 1 1 5 5
 1 2 1 1 5 5

has #7 resonances.

Resonance #1

S0: 1 3 4 5 6
 S1: 1 2

Resonance #2

S0: 1 3 4 5 6

```

S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #9983

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 1 1
1 1 1 4 1 1
1 2 1 1 5 5
1 2 1 1 5 6
has #4 resonances.

```

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
*****

```

The semigroup #9985

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 1 1
1 1 1 4 1 1
1 2 1 1 5 6
1 2 1 1 6 5
has #8 resonances.

```

```

Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 5

```

```

S1: 1 2 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #9986
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 1 1
1 1 1 4 1 4
1 2 1 1 5 5
1 2 1 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #9987
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 1 1
1 1 1 4 4 4
1 2 1 4 5 5
1 2 1 4 5 5
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5

```

```

S1: 1 2 4 5 6
*****
The semigroup #9988
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 1 1
1 1 1 4 4 4
1 2 1 4 5 5
1 2 1 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #9990
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 1 1
1 1 1 4 4 4
1 2 1 4 5 6
1 2 1 4 6 5
has #6 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10032
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 1 3
1 1 1 4 1 4
1 2 1 1 5 5
1 2 3 4 5 6

```

```

has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10033
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 1 3
1 1 1 4 4 4
1 2 1 4 5 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10048
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 3 3
1 1 1 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10049

```

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 3 3
1 1 1 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10051
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 1 3 3
1 1 1 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10084
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1
1 1 3 3 1 1
1 2 1 1 5 5
1 2 1 1 5 5
has #9 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #10085

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1
1 1 3 3 1 1
1 2 1 1 5 5
1 2 1 1 5 6

```

has #7 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #10087

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1

```

```

1 1 3 3 1 1
1 2 1 1 5 6
1 2 1 1 6 5
has #10 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #10088

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1
1 1 3 3 2 2
1 2 1 2 5 5
1 2 1 2 5 5
has #5 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5

```



```

S1: 1 2 3 5 6
*****
The semigroup #10089
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1
1 1 3 3 2 2
1 2 1 2 5 5
1 2 1 2 5 6
has #3 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #10091
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1
1 1 3 3 2 2
1 2 1 2 5 6
1 2 1 2 6 5
has #6 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10092
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1
1 1 3 4 1 1
1 2 1 1 5 5
1 2 1 1 5 5
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #10093
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1
1 1 3 4 1 1
1 2 1 1 5 5
1 2 1 1 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10095
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 1
1 1 3 4 1 1
1 2 1 1 5 6
1 2 1 1 6 5
has #6 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #10101
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 3
1 2 1 1 5 5
1 2 3 3 5 6
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #10103
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 4
1 2 1 1 5 5
1 2 3 4 5 6
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #10104
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 3
1 1 3 3 2 4
1 2 1 2 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #10105
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 3
1 1 3 4 1 3
1 2 1 1 5 5
1 2 3 3 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10106
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 1 3
1 1 3 4 1 4
1 2 1 1 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4
*****
The semigroup #10109
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 3 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #8 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #10110
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 3 3 3
1 2 3 3 5 5
1 2 3 3 5 6
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #10113

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 3 3 3
1 2 3 3 5 6
1 2 3 3 6 5

```

has #9 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #10119

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 3 3 4
1 2 3 3 5 5
1 2 3 4 5 6

```

has #7 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #10121

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 3 4 4
1 2 3 4 5 5
1 2 3 4 5 5

```

has #6 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4

```

The semigroup #10122

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 3 4 4
1 2 3 4 5 5
1 2 3 4 5 6

```

has #6 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #10124
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 3 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10125
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 4 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6

```



```

S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #10126
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 4 3 3
1 2 3 3 5 5
1 2 3 3 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10128
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 4 3 3
1 2 3 3 5 6
1 2 3 3 6 5
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10129
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 4 3 4
1 2 3 3 5 5
1 2 3 4 5 6

```

```

has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10130
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10131
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10133
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 3 3 3
1 1 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #10153

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 4 1 1
1 1 4 3 1 1
1 2 1 1 5 5
1 2 1 1 5 5
has #9 resonances.

```

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5 6

```

The semigroup #10154

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 4 1 1
1 1 4 3 1 1
1 2 1 1 5 5
1 2 1 1 5 6
has #7 resonances.
Resonance #1
S0: 1 3 5 6

```

```

S1: 1 2 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #10156
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 4 1 1
1 1 4 3 1 1
1 2 1 1 5 6
1 2 1 1 6 5
has #9 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 3 5 6
S1: 1 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10168

```

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 4 1 3
1 1 4 3 1 4
1 2 1 1 5 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 5
*****
The semigroup #10173
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 4 3 3
1 1 4 3 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #5 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
*****
The semigroup #10174
1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 4 3 3
1 1 4 3 4 4
1 2 3 4 5 5
1 2 3 4 5 6

```

```

has #5 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
*****

```

The semigroup #10176

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 4 3 3
1 1 4 3 4 4
1 2 3 4 5 6
1 2 3 4 6 5

```

```

has #6 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #10188

```

1 1 1 1 1 1
1 1 1 1 2 2
1 1 3 4 3 4
1 1 4 3 4 3
1 2 3 4 5 6
1 2 4 3 6 5

```

has #4 resonances.

```

Resonance #1
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 3 4 5 6

```

S1: 1 2
 Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2 3 4
 Resonance #4
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #10625

1 1 1 1 1 1
 1 1 1 1 2 3
 1 1 1 1 3 2
 1 1 1 1 2 3
 1 2 3 2 5 6
 1 3 2 3 6 5

has #7 resonances.

Resonance #1

S0: 1 5 6
 S1: 1 2 3 4

Resonance #2

S0: 1 3 5
 S1: 1 2 4 6

Resonance #3

S0: 1 2 4 5
 S1: 1 3 6

Resonance #4

S0: 1 2 3 5
 S1: 1 2 3 4 6

Resonance #5

S0: 1 2 3 5 6
 S1: 1 2 3 4

Resonance #6

S0: 1 2 3 4 5
 S1: 1 2 3 6

Resonance #7

S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #10626

1 1 1 1 1 1
 1 1 1 1 2 3
 1 1 1 1 3 2
 1 1 1 4 1 1
 1 2 3 1 5 6
 1 3 2 1 6 5

has #8 resonances.

Resonance #1

S0: 1 4 5 6
 S1: 1 2 3

Resonance #2

S0: 1 3 4 5
 S1: 1 2 6

Resonance #3

S0: 1 2 4 5
 S1: 1 3 6

Resonance #4

S0: 1 4 5 6

```

S1: 1 2 3 4
Resonance #5
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10627
1 1 1 1 1 1
1 1 1 1 2 3
1 1 1 1 3 2
1 1 1 4 4 4
1 2 3 4 5 6
1 3 2 4 6 5
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10704
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 4
has #14 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4

```



```

S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #10705

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 5

```

has #8 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #10706

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 6

```

has #9 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #10711

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 4
1 2 2 4 4 5
1 2 2 4 5 6

```

has #7 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 6

```

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #10714

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 4
1 2 2 4 5 4
1 2 2 4 4 6
has #5 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #10717

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 4
1 2 2 4 5 5
1 2 2 4 5 5
has #5 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #10718
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 4
1 2 2 4 5 5
1 2 2 4 5 6
has #4 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #10721
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 4
1 2 2 4 5 6
1 2 2 4 6 5
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10731

```

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 6
1 2 2 4 4 6
1 2 2 6 6 4
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #10732
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 4 6
1 2 2 4 5 6
1 2 2 6 6 4
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #10736

```

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 5 5
1 2 2 5 4 4
1 2 2 5 4 4
has #7 resonances.
Resonance #1
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #10737
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 2
1 2 2 4 5 6
1 2 2 5 6 4
1 2 2 6 4 5
has #2 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10762
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 3
1 2 2 4 4 4
1 2 2 4 4 4
1 2 3 4 4 6
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 6

```

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #10764

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 3
1 2 2 4 4 4
1 2 2 4 4 5
1 2 3 4 5 6

```

has #7 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #10765

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 3
1 2 2 4 4 4
1 2 2 4 5 4
1 2 3 4 4 6

```

has #4 resonances.

```

Resonance #1
S0: 1 4 5 6

```

```

S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #10766

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 3
1 2 2 4 4 4
1 2 2 4 5 5
1 2 3 4 5 6
has #4 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #10771

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 2 3
1 2 2 4 5 4
1 2 2 5 4 5
1 2 3 4 5 6
has #6 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5 6

```



```

S1: 1 2 3 4 5
*****
The semigroup #10783
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 3 3
1 2 2 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #3 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #10784
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 3 3
1 2 2 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #10786
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 2 3 3
1 2 2 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #4 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #10796
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 4
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10797
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 5
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #10798
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 6
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10801
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 4
1 2 3 4 4 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10802

```

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 4
1 2 3 4 5 4
1 2 3 4 4 6
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3

```

```

*****
The semigroup #10804
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3

```

```

*****
The semigroup #10805
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #5 resonances.
Resonance #1
S0: 1 4 5 6

```

```

S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10807
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10810
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 6
1 2 3 4 4 6
1 2 3 6 6 4
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6

```

```

S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 6
*****

```

The semigroup #10812

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 4 6
1 2 3 4 5 6
1 2 3 6 6 4
has #6 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 6
*****

```

The semigroup #10814

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 5 5
1 2 3 5 4 4
1 2 3 5 4 4
has #6 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 2 4 5 6

```

```

S1: 1 3
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10816
1 1 1 1 1 1
1 1 1 2 2 2
1 1 1 3 3 3
1 2 3 4 5 6
1 2 3 5 6 4
1 2 3 6 4 5
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 4 5 6
S1: 1 3
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10817
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 4
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10818
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3

```

```

1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 5
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10819
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 6
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10822
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 4
1 2 3 4 4 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10823
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 4
1 2 3 4 5 4
1 2 3 4 4 6

```



```

has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10825
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10826
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10828
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10831

```

```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 6
1 2 3 4 4 6
1 2 3 6 6 4
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #10832
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 4 6
1 2 3 4 5 6
1 2 3 6 6 4
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #10833
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3
1 2 3 4 5 5
1 2 3 5 4 4
1 2 3 5 4 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10834
1 1 1 1 1 1
1 1 1 2 2 2
1 1 2 3 3 3

```

```

1 2 3 4 5 6
1 2 3 5 6 4
1 2 3 6 4 5
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #10835
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 4
1 2 1 4 4 4
1 2 1 4 4 4
has #9 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10836
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 4
1 2 1 4 4 4
1 2 1 4 4 5
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10837
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 4
1 2 1 4 4 4
1 2 1 4 4 6
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10840
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 4
1 2 1 4 4 5
1 2 1 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6

```

```

S1: 1 2 3 4 5
*****
The semigroup #10841
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 4
1 2 1 4 5 4
1 2 1 4 4 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10843
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 4
1 2 1 4 5 5
1 2 1 4 5 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #10844
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 4
1 2 1 4 5 5
1 2 1 4 5 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10846
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 4
1 2 1 4 5 6
1 2 1 4 6 5

```

```

has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10849
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 6
1 2 1 4 4 6
1 2 1 6 6 4
has #5 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #10850
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 4 6
1 2 1 4 5 6
1 2 1 6 6 4
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 5

```

```

S1: 1 2 3 6
*****
The semigroup #10851
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 5 5
1 2 1 5 4 4
1 2 1 5 4 4
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #10852
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 1
1 2 1 4 5 6
1 2 1 5 6 4
1 2 1 6 4 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10853
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 3
1 2 1 4 4 4
1 2 1 4 4 4
1 2 3 4 4 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10855
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 3
1 2 1 4 4 4
1 2 1 4 4 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10856
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 3
1 2 1 4 4 4
1 2 1 4 5 4
1 2 3 4 4 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10857
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 3
1 2 1 4 4 4
1 2 1 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10860

```



```

1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 1 3
1 2 1 4 5 4
1 2 1 5 4 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
*****
The semigroup #10861
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 3 3
1 2 1 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10862
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 3 3
1 2 1 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10864
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 1 3 3
1 2 1 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5

```

```

has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10865
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 4
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10866
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10867
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 6

```

```

has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10870
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #10871
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 4
1 2 3 4 4 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10873
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2 3
*****
The semigroup #10874
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10876
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #10879
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 6
1 2 3 4 4 6
1 2 3 6 6 4
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #10880
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3

```

```

1 2 3 4 4 6
1 2 3 4 5 6
1 2 3 6 6 4
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #10881
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 5 5
1 2 3 5 4 4
1 2 3 5 4 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #10882
1 1 1 1 1 1
1 1 1 2 2 2
1 1 3 3 3 3
1 2 3 4 5 6
1 2 3 5 6 4
1 2 3 6 4 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3
*****
The semigroup #11164
1 1 1 1 1 1
1 1 1 2 2 3
1 1 1 3 3 2
1 2 3 4 4 6
1 2 3 4 4 6
1 3 2 6 6 4
has #4 resonances.
Resonance #1
S0: 1 4 5 6

```

```

S1: 1 2 3
Resonance #2
S0: 1 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
*****

```

The semigroup #11165

```

1 1 1 1 1 1
1 1 1 2 2 3
1 1 1 3 3 2
1 2 3 4 4 6
1 2 3 4 5 6
1 3 2 6 6 4
has #4 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6

```

The semigroup #11186

```

1 1 1 1 1 1
1 1 1 2 3 3
1 1 1 3 2 2
1 2 3 4 5 5
1 3 2 5 4 4
1 3 2 5 4 4
has #4 resonances.

```

```

Resonance #1
S0: 1 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6

```

The semigroup #11211

```

1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3

```

```

1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 3
has #13 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11212
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 4
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11213
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 6
has #8 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11220
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 4 3

```



```

has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11221
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 4 4
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11222
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 4 5
has #3 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #11223
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 5
1 2 3 3 5 6
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11226
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 4 3
1 2 3 3 3 4
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11227

```

```

1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 4 3
1 2 3 3 3 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11230
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 4 4
1 2 3 3 4 4
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11231
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 5 3
1 2 3 3 3 6
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11234
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11235
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 5 5
1 2 3 3 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11238
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 5 6
1 2 3 3 6 5
has #5 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11250
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 3 4
1 2 3 4 4 6
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11252
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 3 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11253

```

```

1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 4 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11254
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 5 3
1 2 3 4 3 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11255
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11265
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3

```

```

1 2 3 3 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #11266
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #11268
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 3 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11269
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 3 3
1 2 3 3 5 3
1 2 3 3 3 6
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11271

```

```

1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11272
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 3 3
1 2 3 3 5 5
1 2 3 3 5 6
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11274
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 3 3
1 2 3 3 5 6
1 2 3 3 6 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11278
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 3 4
1 2 3 3 5 5
1 2 3 4 5 6
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11287

```



```

1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 4
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11288
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11289
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11292
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11293
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 4
1 2 3 4 4 6
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11295
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11296
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11298
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11301

```

```

1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 6
1 2 3 4 4 6
1 2 3 6 6 4
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #11303
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 6
1 2 3 4 5 6
1 2 3 6 6 4
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #11306
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 5 5
1 2 3 5 4 4
1 2 3 5 4 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11309
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 3
1 2 3 4 5 6
1 2 3 5 6 4
1 2 3 6 4 5
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11313

```

```

1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 6 6 6 3
has #4 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11314
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 4 6
1 2 6 6 6 3
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11315
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 5 6
1 2 6 6 6 3
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #11317

```

```

1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 6
1 2 3 3 4 6
1 2 3 4 5 6
1 2 6 6 6 3
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #11318
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 6
1 2 3 4 3 6
1 2 3 3 5 6
1 2 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #11319
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
1 2 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #11320
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
1 2 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #11322
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
1 2 6 6 6 3
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11323
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 5 5
1 2 3 3 5 5
1 2 5 5 3 3
1 2 5 5 3 3
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11324
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 5 5
1 2 3 3 5 5
1 2 5 5 3 3
1 2 5 5 3 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11325
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 5 5
1 2 3 4 5 5
1 2 5 5 3 3
1 2 5 5 3 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11327
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 5 5
1 2 3 4 5 6
1 2 5 5 3 3
1 2 5 6 3 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11328
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 5 5
1 2 3 4 5 6
1 2 5 5 3 3
1 2 5 6 3 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 5

```

```

S1: 1 2 3 5 6
*****
The semigroup #11331
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 5 6
1 2 3 3 5 6
1 2 5 5 6 3
1 2 6 6 3 5
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11332
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 3 5 6
1 2 3 4 5 6
1 2 5 5 6 3
1 2 6 6 3 5
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11333
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 4 4 4
1 2 4 3 3 3
1 2 4 3 3 3
1 2 4 3 3 3
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11334
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 4 4 6
1 2 4 6 6 3
1 2 4 6 6 3
1 2 6 3 3 4
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6

```



```

S1: 1 2
*****
The semigroup #11335
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 4 5 6
1 2 4 3 6 5
1 2 5 6 3 4
1 2 6 5 4 3
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11336
1 1 1 1 1 1
1 1 2 2 2 2
1 2 3 4 5 6
1 2 4 3 6 5
1 2 5 6 4 3
1 2 6 5 3 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2
*****
The semigroup #11339
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 1 1
1 1 1 1 5 5
1 1 1 1 5 5
has #7 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5

```

```

S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #11342

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 1 1
1 1 1 1 5 6
1 1 1 1 6 5

```

has #8 resonances.

```

Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #11355

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4

```

has #17 resonances.

```

Resonance #1
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4

```

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #11356

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 5

```

has #7 resonances.

```

Resonance #1
S0: 1 2 3 4 5

```

```

S1: 1 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #11357

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 6

```

has #7 resonances.

```

Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #11360

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 4 5
1 1 1 4 5 6

```

```

has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11363
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 5 5
1 1 1 4 5 5
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #11366
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 4
1 1 1 4 5 6
1 1 1 4 6 5
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11369
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1

```

```

1 1 1 4 4 6
1 1 1 4 4 6
1 1 1 6 6 4
has #7 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #11371
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 4 6
1 1 1 4 5 6
1 1 1 6 6 4
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #11374
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 1
1 1 1 4 5 5
1 1 1 5 4 4
1 1 1 5 4 4
has #7 resonances.
Resonance #1
S0: 1 2 3 4

```

```

S1: 1 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #11395
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 1 3 1 1 3
has #11 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5

```

```

S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11396
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 1 3 1 1 6
has #5 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11401
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 6
has #5 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11403
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 3

```



```

1 1 1 4 4 4
1 1 1 4 4 5
1 1 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11409
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 1 3 1 1 3
has #11 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 5

```

```

S1: 1 3 4 5 6
*****
The semigroup #11410
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 1 3 1 1 6
has #6 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11415
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 3
1 1 1 4 5 4
1 1 1 5 4 5
1 1 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
*****
The semigroup #11433
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 1 1 6
1 1 1 4 5 1
1 1 1 5 4 1
1 1 6 1 1 3

```

has #10 resonances.

Resonance #1

S0: 1 2 3 4

S1: 1 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #3

S0: 1 2 3 4 6

S1: 1 5

Resonance #4

S0: 1 2 3 4 5

S1: 1 6

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 6

Resonance #7

S0: 1 2 3 4 6

S1: 1 3 5 6

Resonance #8

S0: 1 2 3 4 5

S1: 1 4 5 6

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 3 5 6

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 4 5 6

The semigroup #11442

1 1 1 1 1 1

1 2 1 1 1 1

1 1 3 1 3 3

1 1 1 4 4 4

1 1 3 4 5 5

1 1 3 4 5 5

has #1 resonances.

Resonance #1

S0: 1 2 3 4 5

S1: 1 3 4 5 6

The semigroup #11445

1 1 1 1 1 1

1 2 1 1 1 1

1 1 3 1 3 3

1 1 1 4 4 4

1 1 3 4 5 6

1 1 3 4 6 5

has #2 resonances.

Resonance #1

S0: 1 2 3 4 5

S1: 1 3 4 6

Resonance #2

S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #11506
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 3
has #31 resonances.
Resonance #1
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #16
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #20
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #21
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #30
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #11507

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 4

```

has #15 resonances.

```

Resonance #1
S0: 1 2 3 4

```

```

S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11508
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 6
has #17 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 6

```

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #11515

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 3

```

has #13 resonances.

```

Resonance #1
S0: 1 2 3 6

```

```

S1: 1 3 4 5
Resonance #2
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #11516

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 4

```

has #9 resonances.

```

Resonance #1
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6

```



```

S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #11517

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 5
has #5 resonances.

```

```

Resonance #1
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #11518

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 5
1 1 3 3 5 6
has #11 resonances.

```

```

Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6

```

```

S1: 1 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #11521

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 4 3
1 1 3 3 3 4

```

has #13 resonances.

```

Resonance #1
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5

```

```

S1: 1 3 4 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #11522

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 4 3
1 1 3 3 3 6

```

has #7 resonances.

```

Resonance #1
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #11525

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 3 4 4

```

has #9 resonances.

```

Resonance #1
S0: 1 2 3 4

```

```

S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11526
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 3
1 1 3 3 3 6
has #7 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11529

```

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 5
1 1 3 3 5 5
has #9 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11530
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 5
1 1 3 3 5 6
has #5 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5

The semigroup #11533

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 6
1 1 3 3 6 5

has #9 resonances.

Resonance #1

S0: 1 2 3 5

S1: 1 3 4 6

Resonance #2

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #4

S0: 1 2 3 4 5

S1: 1 3 6

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 3 4 5

S1: 1 3 4 6

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #8

S0: 1 2 3 5 6

S1: 1 3 4 5 6

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #11545

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 3 4
1 1 3 4 4 6

has #5 resonances.

Resonance #1

S0: 1 2 3 6

S1: 1 3 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 3 4 6

S1: 1 3 4 5

Resonance #4

S0: 1 2 3 4 6

S1: 1 3 4 5 6
 Resonance #5
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #11547

1 1 1 1 1 1
 1 2 1 1 1 1
 1 1 3 3 3 3
 1 1 3 3 3 4
 1 1 3 3 3 5
 1 1 3 4 5 6

has #10 resonances.

Resonance #1

S0: 1 2 3 6

S1: 1 3 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #4

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #5

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 3 4 6

S1: 1 3 4 5

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #11548

1 1 1 1 1 1
 1 2 1 1 1 1
 1 1 3 3 3 3
 1 1 3 3 3 4
 1 1 3 3 4 5
 1 1 3 4 5 6

has #4 resonances.

Resonance #1

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #2

S0: 1 2 3 4 6

```

S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11549
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 5 3
1 1 3 4 3 6
has #4 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11550
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 5 5
1 1 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11560
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 4 5 5
1 1 3 4 5 5

```



```

has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #11561
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 4 5 5
1 1 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #11563
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 4 5 6
1 1 3 4 6 5
has #4 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11566
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 3 3
1 1 3 3 5 5
1 1 3 3 5 5
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5

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```

S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11569
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 3 3
1 1 3 3 5 6
1 1 3 3 6 5
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11582
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 4
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #11583
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 5
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11584
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 1 3 4 4 6
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11587
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 5
1 1 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11590
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3

```

```

1 1 3 4 4 4
1 1 3 4 5 5
1 1 3 4 5 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #11593
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 5 6
1 1 3 4 6 5
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11596
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 6
1 1 3 4 4 6
1 1 3 6 6 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #11598
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 4 6
1 1 3 4 5 6
1 1 3 6 6 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #11601

```

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 3
1 1 3 4 5 5
1 1 3 5 4 4
1 1 3 5 4 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #11608
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 3 6
1 1 6 6 6 3
has #9 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11610
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 6

```

```

1 1 3 3 3 6
1 1 3 3 4 6
1 1 6 6 6 3
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

```

*****
The semigroup #11612
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 5 6
1 1 6 6 6 3
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

```

*****
The semigroup #11618
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 6
1 1 3 3 4 6
1 1 3 4 5 6
1 1 6 6 6 3
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5

```

```

S1: 1 2 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #11620
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 6
1 1 3 4 3 6
1 1 3 3 5 6
1 1 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #11623
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 6
1 1 3 4 4 6
1 1 3 4 4 6
1 1 6 6 6 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #11625
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 6
1 1 3 4 4 6
1 1 3 4 5 6
1 1 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #11630

```

```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 3 6
1 1 3 4 5 6
1 1 3 5 4 6
1 1 6 6 6 3
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11634
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 5 5
1 1 3 3 5 5
1 1 5 5 3 3
1 1 5 5 3 3
has #9 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11635

```



```

1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 5 5
1 1 3 3 5 5
1 1 5 5 3 3
1 1 5 5 3 4
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

```

*****
The semigroup #11638
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 5 5
1 1 3 4 5 5
1 1 5 5 3 3
1 1 5 5 3 3
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

```

*****
The semigroup #11642
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 5 5
1 1 3 4 5 6
1 1 5 5 3 3
1 1 5 6 3 3
has #4 resonances.
Resonance #1
S0: 1 2 3 4

```

```

S1: 1 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11643
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 5 5
1 1 3 4 5 6
1 1 5 5 3 3
1 1 5 6 3 4
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11653
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 3 5 6
1 1 3 3 5 6
1 1 5 5 6 3
1 1 6 6 3 5
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #11666
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 4 4 4
1 1 4 3 3 3
1 1 4 3 3 3
1 1 4 3 3 3
has #9 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3

```

```

S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11676
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 4 4 6
1 1 4 6 6 3
1 1 4 6 6 3
1 1 6 3 3 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #11696
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 4 5 6
1 1 4 3 6 5
1 1 5 6 3 4
1 1 6 5 4 3
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 5
S1: 1 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 5

```

```

S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
*****
The semigroup #11697
1 1 1 1 1 1
1 2 1 1 1 1
1 1 3 4 5 6
1 1 4 3 6 5
1 1 5 6 4 3
1 1 6 5 3 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
*****
The semigroup #11763
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 1
1 1 1 4 4 1
1 2 3 1 1 6
has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11766
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 4 4
1 2 3 4 4 6
has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11768
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 1 1 3
1 1 1 4 4 4
1 1 1 4 4 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11773
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 1 1 3
1 1 1 4 5 1
1 1 1 5 4 1
1 2 3 1 1 6
has #5 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11775
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 1 1 3
1 1 1 4 5 4
1 1 1 5 4 5
1 2 3 4 5 6

```

```

has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
*****
The semigroup #11842
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 1
1 1 3 3 3 1
1 2 1 1 1 2
has #18 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 3 4 5

```

```

S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11843
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 1
1 1 3 3 3 1
1 2 1 1 1 6
has #12 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
 Resonance #11
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #12
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #11845

1 1 1 1 1 1
 1 2 1 1 1 2
 1 1 3 3 3 1
 1 1 3 3 3 1
 1 1 3 3 4 1
 1 2 1 1 1 2

has #9 resonances.

Resonance #1
 S0: 1 2 3 4
 S1: 1 2 3 5 6
 Resonance #2
 S0: 1 2 3 4 6
 S1: 1 3 5
 Resonance #3
 S0: 1 2 3 4 5
 S1: 1 2 6
 Resonance #4
 S0: 1 2 3 4 6
 S1: 1 3 4 5
 Resonance #5
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #6
 S0: 1 2 3 4 5
 S1: 1 2 3 6
 Resonance #7
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #8
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #9
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #11846

1 1 1 1 1 1
 1 2 1 1 1 2
 1 1 3 3 3 1
 1 1 3 3 3 1
 1 1 3 3 4 1
 1 2 1 1 1 6

has #5 resonances.

Resonance #1
 S0: 1 2 3 4 6
 S1: 1 3 5
 Resonance #2
 S0: 1 2 3 4 6


```

S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #11848

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 1
1 1 3 3 5 1
1 2 1 1 1 2

```

has #10 resonances.

```

Resonance #1
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #11849

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 3 3 1
1 1 3 3 5 1
1 2 1 1 1 6

```

```

has #5 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #11858

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 3 4 1
1 1 3 4 5 1
1 2 1 1 1 2

```

has #7 resonances.

```

Resonance #1
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #11859

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 3 4 1
1 1 3 4 5 1
1 2 1 1 1 6

```

has #3 resonances.

```

Resonance #1
S0: 1 2 3 5 6

```

```

S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #11861
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 4 3 1
1 1 3 3 5 1
1 2 1 1 1 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11867
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 4 4 1
1 1 3 4 4 1
1 2 1 1 1 2
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11868
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1

```

```

1 1 3 4 4 1
1 1 3 4 4 1
1 2 1 1 1 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11870
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 4 4 1
1 1 3 4 5 1
1 2 1 1 1 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11877
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 4 5 1
1 1 3 5 4 1
1 2 1 1 1 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11878

```

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 1
1 1 3 4 5 1
1 1 3 5 4 1
1 2 1 1 1 6
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11886
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 3 3
1 2 3 3 3 6
has #12 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
 Resonance #12
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #11890

1 1 1 1 1 1
 1 2 1 1 1 2
 1 1 3 3 3 3
 1 1 3 3 3 3
 1 1 3 3 3 5
 1 2 3 3 5 6

has #10 resonances.

Resonance #1

S0: 1 2 3 6

S1: 1 3 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #4

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #5

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 3 4 6

S1: 1 3 4 5

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #11893

1 1 1 1 1 1
 1 2 1 1 1 2
 1 1 3 3 3 3
 1 1 3 3 3 3
 1 1 3 3 4 3
 1 2 3 3 3 6

has #5 resonances.

Resonance #1

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #2

S0: 1 2 3 4 6

```

S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #11894

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 3
1 2 3 3 3 6
has #5 resonances.

```

```

Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

```

*****
The semigroup #11896

```

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 3
1 1 3 3 5 5
1 2 3 3 5 6
has #4 resonances.

```

```

Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

```

*****
The semigroup #11905

```

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 3 4
1 2 3 4 4 6
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11907
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 3 5
1 2 3 4 5 6
has #10 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6

```


S1: 1 2 3 4 5

The semigroup #11908

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 4 5
1 2 3 4 5 6

has #4 resonances.

Resonance #1

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #2

S0: 1 2 3 4 6

S1: 1 3 4 5

Resonance #3

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #4

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #11909

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 5 3
1 2 3 4 3 6

has #4 resonances.

Resonance #1

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #3

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #11910

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 3 4
1 1 3 3 5 5
1 2 3 4 5 6

has #4 resonances.

Resonance #1

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #2

S0: 1 2 3 5 6

```

S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11919
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 4 3
1 1 3 4 5 3
1 2 3 3 3 6
has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #11920
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 3 4 4
1 1 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #11929
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 4 4 3
1 1 3 4 4 3
1 2 3 3 3 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11932

```

```

1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 4
1 2 3 4 4 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11934
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 4 4 4
1 1 3 4 4 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11939
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 4 5 3
1 1 3 5 4 3
1 2 3 3 3 6
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #11941
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 3 3
1 1 3 4 5 4
1 1 3 5 4 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6

```

```

S1: 1 3 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
*****
The semigroup #11947
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 5 1
1 1 3 3 5 1
1 1 5 5 3 1
1 2 1 1 1 2
has #8 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11948
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 5 1
1 1 3 3 5 1
1 1 5 5 3 1
1 2 1 1 1 6
has #5 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 4 6

```

```

S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11955
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 5 1
1 1 3 4 5 1
1 1 5 5 3 1
1 2 1 1 1 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #11956
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 5 1
1 1 3 4 5 1
1 1 5 5 3 1
1 2 1 1 1 6
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5 6
*****
The semigroup #11964
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 5 3
1 1 3 3 5 3
1 1 5 5 3 5
1 2 3 3 5 6

```

```

has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11968
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 5 3
1 1 3 3 5 4
1 1 5 5 3 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #11971
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 5 3
1 1 3 4 5 3
1 1 5 5 3 5
1 2 3 3 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
*****
The semigroup #11973
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 3 5 3
1 1 3 4 5 4
1 1 5 5 3 5
1 2 3 4 5 6

```

```

has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
*****
The semigroup #11980
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 4 4 1
1 1 4 3 3 1
1 1 4 3 3 1
1 2 1 1 1 2
has #8 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #11981
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 4 4 1
1 1 4 3 3 1
1 1 4 3 3 1
1 2 1 1 1 6
has #5 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 6

```

```

S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11986
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 4 4 3
1 1 4 3 3 4
1 1 4 3 3 4
1 2 3 4 4 6
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #11988
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 4 4 3
1 1 4 3 3 4
1 1 4 3 3 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12000
1 1 1 1 1 1
1 2 1 1 1 2
1 1 3 4 5 1
1 1 4 5 3 1
1 1 5 3 4 1
1 2 1 1 1 2

```



```

has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #12073
1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 3 3 1
1 1 3 3 3 1
1 1 3 3 3 1
1 6 1 1 1 2
has #17 resonances.
Resonance #1
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
 Resonance #16
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #17
 S0: 1 2 3 4 5
 S1: 1 3 4 5 6

The semigroup #12075

1 1 1 1 1 1
 1 2 1 1 1 6
 1 1 3 3 3 1
 1 1 3 3 3 1
 1 1 3 3 4 1
 1 6 1 1 1 2

has #9 resonances.

Resonance #1
 S0: 1 2 3 4
 S1: 1 3 5 6
 Resonance #2
 S0: 1 2 3 4
 S1: 1 3 4 5 6
 Resonance #3
 S0: 1 2 3 4 5
 S1: 1 6
 Resonance #4
 S0: 1 2 3 4 6
 S1: 1 3 5
 Resonance #5
 S0: 1 2 3 4 5
 S1: 1 3 6
 Resonance #6
 S0: 1 2 3 4 6
 S1: 1 3 4 5
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 3 4 6
 Resonance #8
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #9
 S0: 1 2 3 4 5
 S1: 1 3 4 5 6

The semigroup #12077

1 1 1 1 1 1
 1 2 1 1 1 6
 1 1 3 3 3 1
 1 1 3 3 3 1
 1 1 3 3 5 1
 1 6 1 1 1 2

has #10 resonances.

Resonance #1
 S0: 1 2 3 5
 S1: 1 3 4 6
 Resonance #2
 S0: 1 2 3 5

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #12084
1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 3 3 1
1 1 3 3 4 1
1 1 3 4 5 1
1 6 1 1 1 2
has #7 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #12086

```

```

1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 3 3 1
1 1 3 4 3 1
1 1 3 3 5 1
1 6 1 1 1 2
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #12090
1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 3 3 1
1 1 3 4 4 1
1 1 3 4 4 1
1 6 1 1 1 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #12092
1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 3 3 1
1 1 3 4 4 1
1 1 3 4 5 1
1 6 1 1 1 2

```

```

has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #12097
1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 3 3 1
1 1 3 4 5 1
1 1 3 5 4 1
1 6 1 1 1 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #12104
1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 3 5 1
1 1 3 3 5 1
1 1 5 5 3 1
1 6 1 1 1 2
has #8 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 6

```

```

S1: 1 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****

```

The semigroup #12111

```

1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 3 5 1
1 1 3 4 5 1
1 1 5 5 3 1
1 6 1 1 1 2
has #6 resonances.

```

```

Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6

```

The semigroup #12119

```

1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 4 4 1
1 1 4 3 3 1
1 1 4 3 3 1
1 6 1 1 1 2
has #8 resonances.

```

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 6

```

```

S1: 1 4 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #12131
1 1 1 1 1 1
1 2 1 1 1 6
1 1 3 4 5 1
1 1 4 5 3 1
1 1 5 3 4 1
1 6 1 1 1 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #12151
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 1 3 3
1 1 1 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12163
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 3
1 2 1 1 2 2
1 2 3 3 2 6
has #9 resonances.
Resonance #1
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12166
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 3
1 2 1 1 2 5
1 2 3 3 5 6
has #7 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12169

```



```

1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 3
1 2 1 1 5 2
1 2 3 3 2 6
has #4 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #12171
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 3
1 2 1 1 5 5
1 2 3 3 5 6
has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #12177
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 4
1 2 1 1 2 5
1 2 3 4 5 6
has #7 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #12178

```

1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 4
1 2 1 1 5 2
1 2 3 4 2 6
has #3 resonances.

```

```

Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4

```

```

Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4

```

```

Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #12179

```

1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 1 3
1 1 3 3 1 4
1 2 1 1 5 5
1 2 3 4 5 6
has #3 resonances.

```

```

Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4

```

```

Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4

```

```

Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #12194

```

1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 3 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #4 resonances.

```

```

Resonance #1
S0: 1 2 3 5 6

```

```

S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #12195

```

1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 3 3 3
1 2 3 3 5 5
1 2 3 3 5 6
has #3 resonances.

```

```

Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4

```

```

Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4

```

```

Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #12198

```

1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 3 3 3
1 2 3 3 5 6
1 2 3 3 6 5
has #5 resonances.

```

```

Resonance #1
S0: 1 2 3 5
S1: 1 2 3 4 6

```

```

Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4

```

```

Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4

```

```

Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6

```

```

Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #12204

```

1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3

```

```

1 1 3 3 3 4
1 2 3 3 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #12206
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 3 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #12207
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 3 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #12209
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 3 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #2
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12210
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 4 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #12213
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 4 3 3
1 2 3 3 5 6
1 2 3 3 6 5
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12218
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 3 3 3
1 1 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12235
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 4 1 3
1 1 4 3 1 4
1 2 1 1 2 2
1 2 3 4 2 6
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 5 6

```

```

S1: 1 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12237
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 4 1 3
1 1 4 3 1 4
1 2 1 1 2 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 5 6
S1: 1 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12238
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 4 1 3
1 1 4 3 1 4
1 2 1 1 5 2
1 2 3 4 2 6
has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 3 5 6

```

```

S1: 1 2 4 5
*****
The semigroup #12239
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 4 1 3
1 1 4 3 1 4
1 2 1 1 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5
*****
The semigroup #12253
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 4 3 3
1 1 4 3 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4
*****
The semigroup #12254
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 4 3 3
1 1 4 3 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4
*****
The semigroup #12256
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 4 3 3
1 1 4 3 4 4
1 2 3 4 5 6
1 2 3 4 6 5

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12262
1 1 1 1 1 1
1 2 1 1 2 2
1 1 3 4 3 4
1 1 4 3 4 3
1 2 3 4 5 6
1 2 4 3 6 5
has #2 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12350
1 1 1 1 1 1
1 2 1 1 2 6
1 1 3 4 3 1
1 1 4 3 4 1
1 2 3 4 5 6
1 6 1 1 6 2
has #5 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 4 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
*****
The semigroup #12389
1 1 1 1 1 1
1 2 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 4

```



```

has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12390
1 1 1 1 1 1
1 2 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12391
1 1 1 1 1 1
1 2 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 6
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12394
1 1 1 1 1 1
1 2 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 5
1 2 3 4 5 6
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12400
1 1 1 1 1 1
1 2 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12403

```

```

1 1 1 1 1 1
1 2 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 6
1 2 3 4 4 6
1 2 3 6 6 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 6
*****

The semigroup #12404
1 1 1 1 1 1
1 2 1 2 2 2
1 1 3 3 3 3
1 2 3 4 4 6
1 2 3 4 5 6
1 2 3 6 6 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 6
*****

The semigroup #12405
1 1 1 1 1 1
1 2 1 2 2 2
1 1 3 3 3 3
1 2 3 4 5 5
1 2 3 5 4 4
1 2 3 5 4 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
*****

The semigroup #12910
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
has #50 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 5 6

```

S1: 1 2 3 4
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #24
S0: 1 2 3 5 6

S1: 1 2 4
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #30
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #33
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #36
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #39
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #42
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #43
S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #45
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #48
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #12911

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3

```

has #26 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12912
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2

```

1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 6
has #31 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #18
S0: 1 2 3 5 6

```

S1: 1 2 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #28
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #30
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #31
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #12925

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 2

```

has #22 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3

```


S1: 1 2 4 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6
*****
The semigroup #12926
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 3
has #16 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6

The semigroup #12927

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 4

has #12 resonances.

Resonance #1

S0: 1 2 4 6

S1: 1 2 3 5

Resonance #2

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #3

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #4

S0: 1 2 4 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #6

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #7

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #11

S0: 1 2 3 4 5

S1: 1 2 3 5 6

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #12928

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 5

has #10 resonances.

Resonance #1

S0: 1 2 5

```

S1: 1 2 3 4 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12936
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 5
1 2 2 2 5 6
has #21 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12943
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 3 2
1 2 2 2 2 3
has #22 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6

```

S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12944
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 3 2
1 2 2 2 2 4
has #13 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #12945
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2

```

```

1 2 2 2 2 2
1 2 2 2 3 2
1 2 2 2 2 6
has #15 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #12956
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 2 3 3

```


has #16 resonances.

Resonance #1

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #3

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #5

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #6

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #8

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #11

S0: 1 2 3 5 6

S1: 1 2 3 4 6

Resonance #12

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #13

S0: 1 2 3 4 6

S1: 1 2 3 5 6

Resonance #14

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #15

S0: 1 2 3 4 5

S1: 1 2 3 5 6

Resonance #16

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #12957

1 1 1 1 1 1

1 2 2 2 2 2

1 2 2 2 2 2

1 2 2 2 2 2

1 2 2 2 3 3

1 2 2 2 3 4

has #8 resonances.

Resonance #1

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #3

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #4

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #5

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #6

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 3 5 6

Resonance #8

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #12964

1 1 1 1 1 1

1 2 2 2 2 2

1 2 2 2 2 2

1 2 2 2 2 2

1 2 2 2 3 4

1 2 2 2 4 3

has #11 resonances.

Resonance #1

S0: 1 2 3 6

S1: 1 2 4 5

Resonance #2

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #3

S0: 1 2 3 4

S1: 1 2 5 6

Resonance #4

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #6

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #7

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 4 5
 Resonance #9
 S0: 1 2 3 4 5
 S1: 1 2 4 6
 Resonance #10
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5
 Resonance #11
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #12965

1 1 1 1 1 1
 1 2 2 2 2 2
 1 2 2 2 2 2
 1 2 2 2 2 2
 1 2 2 2 5 2
 1 2 2 2 2 6

has #17 resonances.

Resonance #1
 S0: 1 2 5 6
 S1: 1 2 3 4
 Resonance #2
 S0: 1 2 5 6
 S1: 1 2 3 4 6
 Resonance #3
 S0: 1 2 5 6
 S1: 1 2 3 4 5
 Resonance #4
 S0: 1 2 4 5 6
 S1: 1 2 3
 Resonance #5
 S0: 1 2 3 5 6
 S1: 1 2 4
 Resonance #6
 S0: 1 2 4 5 6
 S1: 1 2 3 6
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3 4
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 2 4 6
 Resonance #10
 S0: 1 2 3 5 6
 S1: 1 2 4 5
 Resonance #11
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #13
 S0: 1 2 4 5 6

```

S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #12972
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 5 5
1 2 2 2 5 5
has #17 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #12
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #12973
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 5 5
1 2 2 2 5 6
has #12 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5 6

```

```

S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #12979
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 5 6
1 2 2 2 6 5
has #16 resonances.
Resonance #1
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 5 6

```

```

S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13025
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 3
1 2 2 3 3 2
has #15 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #13026
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 3
1 2 2 3 3 3
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13027
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 3
1 2 2 3 3 4

```


has #7 resonances.

Resonance #1

S0: 1 2 4 5

S1: 1 2 3 6

Resonance #2

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #3

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #4

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 3 5 6

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #13028

1 1 1 1 1 1

1 2 2 2 2 2

1 2 2 2 2 2

1 2 2 2 2 3

1 2 2 2 3 2

1 2 2 3 2 2

has #15 resonances.

Resonance #1

S0: 1 2 3

S1: 1 2 4 5 6

Resonance #2

S0: 1 2 3 5

S1: 1 2 4 6

Resonance #3

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #5

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #6

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #9

S0: 1 2 3 4 5

```

S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13029
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 2
1 2 2 3 2 3
has #15 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #13030

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 2
1 2 2 3 2 4
has #7 resonances.

```

```

Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #13034

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 3
1 2 2 3 3 2
has #13 resonances.

```

```

Resonance #1
S0: 1 2 3

```

```

S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #13035

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 3
1 2 2 3 3 3

```

has #13 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13036
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 3
1 2 2 3 3 4
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13037

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 4
1 2 2 3 4 5
has #3 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13038
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 5 2
1 2 2 3 2 2
has #13 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
 Resonance #12
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #13
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #13039

1 1 1 1 1 1
 1 2 2 2 2 2
 1 2 2 2 2 2
 1 2 2 2 2 3
 1 2 2 2 5 2
 1 2 2 3 2 3

has #9 resonances.

Resonance #1
 S0: 1 2 3 5
 S1: 1 2 4 6
 Resonance #2
 S0: 1 2 3 5
 S1: 1 2 4 5 6
 Resonance #3
 S0: 1 2 3 5
 S1: 1 2 3 4 6
 Resonance #4
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #5
 S0: 1 2 3 4 5
 S1: 1 2 3 6
 Resonance #6
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #7
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #8
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #9
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #13040

1 1 1 1 1 1
 1 2 2 2 2 2
 1 2 2 2 2 2
 1 2 2 2 2 3
 1 2 2 2 5 2
 1 2 2 3 2 4

has #5 resonances.

Resonance #1
 S0: 1 2 4 5
 S1: 1 2 3 6
 Resonance #2
 S0: 1 2 4 5

```

S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #13041

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 5 5
1 2 2 3 5 5

```

has #7 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #13066

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 4
1 2 2 2 2 4
1 2 2 4 4 6

```

has #11 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 4 6

```



```

S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13071
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 4
1 2 2 2 2 5
1 2 2 4 5 6
has #19 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #13075

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 4
1 2 2 2 3 2
1 2 2 4 2 6

```

has #10 resonances.

```

Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #13076

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 4
1 2 2 2 3 4
1 2 2 4 4 6
has #5 resonances.

```

```

Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #13077

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 4
1 2 2 2 4 5
1 2 2 4 5 6
has #9 resonances.

```

```

Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13079
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 4
1 2 2 2 5 2
1 2 2 4 2 6
has #11 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13082
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 2 4
1 2 2 2 5 5
1 2 2 4 5 6
has #10 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13108
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 3 2 3
1 2 2 3 3 2
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #13109

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 3 2 3
1 2 2 3 3 3

```

has #13 resonances.

```

Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13110
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 3 3 2
1 2 2 3 2 3
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13112
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 3 3 3
1 2 2 3 3 3
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6

```



```

S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13113
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 3 4 4
1 2 2 3 4 4
has #4 resonances.
Resonance #1
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13116
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 4 4
1 2 2 4 5 5
1 2 2 4 5 5
has #7 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6

The semigroup #13117

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 4 4
1 2 2 4 5 5
1 2 2 4 5 6

has #6 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #3

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 4 5

The semigroup #13120

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 2 4 4
1 2 2 4 5 6
1 2 2 4 6 5

has #8 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 4 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 3 4 5

```

S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13131
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 2
1 2 2 2 3 2
1 2 2 2 2 3
has #19 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13132
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 2
1 2 2 2 3 2
1 2 2 2 2 6
has #13 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13136
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 2
1 2 2 2 3 3
1 2 2 2 3 3
has #15 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6

The semigroup #13139

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 2
1 2 2 2 5 2
1 2 2 2 2 6

has #7 resonances.

Resonance #1

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #2

S0: 1 2 3 5 6

S1: 1 2 4 6

Resonance #3

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 4 5 6

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4 6

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 3 4 5

The semigroup #13142

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 2
1 2 2 2 5 5
1 2 2 2 5 5

has #8 resonances.

Resonance #1

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #2

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #3

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #6

S0: 1 2 3 5 6

```

S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #13143

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 2
1 2 2 2 5 5
1 2 2 2 5 6

```

has #5 resonances.

```

Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5

```

The semigroup #13146

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 2
1 2 2 2 5 6
1 2 2 2 6 5

```

has #8 resonances.

```

Resonance #1
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 5

```

```

S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13154
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 3
1 2 2 2 3 3
1 2 2 3 3 3
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13155

```



```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 3
1 2 2 2 5 2
1 2 2 3 2 3
has #9 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13156
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 2 3
1 2 2 2 5 5
1 2 2 3 5 5
has #4 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13163

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 3 3 3
1 2 2 3 3 3
1 2 2 3 3 3
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13164
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 2 2
1 2 2 2 5 2
1 2 2 2 2 6
has #7 resonances.
Resonance #1
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #13167
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 2 2
1 2 2 2 5 5
1 2 2 2 5 5
has #9 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13168

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 2 2
1 2 2 2 5 5
1 2 2 2 5 6
has #5 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #13171
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 2 2
1 2 2 2 5 6
1 2 2 2 6 5
has #9 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #13184
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 2 4
1 2 2 2 5 5
1 2 2 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #13204
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 4
has #13 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13205
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 5
has #7 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13206
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 6
has #8 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #13211

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 4
1 2 2 4 4 5
1 2 2 4 5 6

```

has #6 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #13214

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 4
1 2 2 4 5 4
1 2 2 4 4 6

```

has #4 resonances.

```

Resonance #1
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #13217

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 4
1 2 2 4 5 5
1 2 2 4 5 5
has #4 resonances.

```

```

Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3

```

```

Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4

```

```

Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 5

```

```

Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

The semigroup #13218

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 4
1 2 2 4 5 5
1 2 2 4 5 6
has #3 resonances.

```

```

Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3

```

```

Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4

```

```

Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 5

```

The semigroup #13221

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 4
1 2 2 4 5 6
1 2 2 4 6 5

```



```

has #5 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #13231

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 6
1 2 2 4 4 6
1 2 2 6 6 4

```

```

has #6 resonances.
Resonance #1
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****

```

The semigroup #13233

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 4 6
1 2 2 4 5 6
1 2 2 6 6 4

```

has #5 resonances.

```

Resonance #1
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #13240

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 5 5
1 2 2 5 4 4
1 2 2 5 4 4
has #6 resonances.

```

```

Resonance #1
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

```

*****
The semigroup #13247

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 2
1 2 2 4 5 6
1 2 2 5 6 4
1 2 2 6 4 5
has #1 resonances.

```

```

Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3

```

```

*****
The semigroup #13315

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 3
1 2 2 2 2 3
1 2 3 3 3 6

```

has #8 resonances.

Resonance #1

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #2

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #3

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #4

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 3 4 6

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 2 3 4 6

S1: 1 2 3 5 6

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 4 5

The semigroup #13319

1 1 1 1 1 1

1 2 2 2 2 2

1 2 2 2 2 3

1 2 2 2 2 3

1 2 2 2 2 5

1 2 3 3 5 6

has #9 resonances.

Resonance #1

S0: 1 2 6

S1: 1 2 3 4 5

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4 5

Resonance #4

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 5

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #7

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #8

S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13322
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 3
1 2 2 2 3 5
1 2 3 3 5 6
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13324
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 3
1 2 2 2 5 2
1 2 3 3 2 6
has #5 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13326

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 3
1 2 2 2 5 5
1 2 3 3 5 6
has #4 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13342
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 4
1 2 2 2 2 5
1 2 3 4 5 6
has #19 resonances.
Resonance #1
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6

```

```

S1: 1 2 5
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****

```

The semigroup #13343

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 4
1 2 2 2 3 5
1 2 3 4 5 6

```

has #9 resonances.

```

Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13344
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 4
1 2 2 2 5 2
1 2 3 4 2 6
has #10 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13345
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 2 4
1 2 2 2 5 5
1 2 3 4 5 6
has #10 resonances.
Resonance #1
S0: 1 2 5 6

```

```

S1: 1 2 3 4
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #13368

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 4
1 2 2 3 2 5
1 2 3 4 5 6

```

has #8 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 5 6

```



```

S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13369
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 4
1 2 2 3 3 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13370
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 3 4
1 2 2 3 4 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13371
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 2 4 2
1 2 2 4 5 2
1 2 3 2 2 6

```

has #7 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #3

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 3 4 6

The semigroup #13375

1 1 1 1 1 1

1 2 2 2 2 2

1 2 2 2 2 3

1 2 2 2 4 4

1 2 2 4 5 5

1 2 3 4 5 6

has #6 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 2 3 4

Resonance #2

S0: 1 2 4 5 6

S1: 1 2 3

Resonance #3

S0: 1 2 3 5 6

S1: 1 2 4

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 4 5

The semigroup #13378

1 1 1 1 1 1

1 2 2 2 2 2

1 2 2 2 2 3

1 2 2 3 2 4

1 2 2 2 3 5

1 2 3 4 5 6

```

has #8 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13379
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 3 2 4
1 2 2 2 5 2
1 2 3 4 2 6
has #4 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13380
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 3 2 4
1 2 2 2 5 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 3 5 6

```

```

S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13384
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 3 3 4
1 2 2 3 3 4
1 2 3 4 4 6
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13386
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 3 3 4
1 2 2 3 3 5
1 2 3 4 5 6
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13387

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 2 2
1 2 2 2 5 2
1 2 3 2 2 6
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #13388
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 2 2
1 2 2 2 5 5
1 2 3 2 5 6
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #13397
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 2 4
1 2 2 2 5 5
1 2 3 4 5 6
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #13405
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 4 2
1 2 2 4 4 2
1 2 3 2 2 6
has #6 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13406
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 4 2
1 2 2 4 4 3
1 2 3 2 3 6
has #2 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13407
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 4 2
1 2 2 4 5 2
1 2 3 2 2 6
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6

```

```

S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #13409

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 4 4
1 2 2 4 4 4
1 2 3 4 4 6

```

has #6 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5

```

The semigroup #13411

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 4 4
1 2 2 4 4 5
1 2 3 4 5 6

```

has #6 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13412
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 4 4
1 2 2 4 5 4
1 2 3 4 4 6
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #13413
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 4 4
1 2 2 4 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****
The semigroup #13418
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 5 2
1 2 2 5 4 2
1 2 3 2 2 6
has #6 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6

```



```

S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #13421

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 2 3
1 2 2 4 5 4
1 2 2 5 4 5
1 2 3 4 5 6
has #5 resonances.

```

```

Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
*****

```

The semigroup #13491

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 2 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #4 resonances.

```

```

Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #13492

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 2 3 3
1 2 3 3 5 5
1 2 3 3 5 6
has #3 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13495
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 2 3 3
1 2 3 3 5 6
1 2 3 3 6 5
has #5 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13501
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 2 3 4
1 2 3 3 5 5
1 2 3 4 5 6
has #3 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 5
*****
The semigroup #13504
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 2 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #5 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #13505
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 2 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #5 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #13507
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 2 4 4
1 2 3 4 5 6
1 2 3 4 6 5

```

```

has #6 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13509
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 3 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #13510
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 3 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
*****
The semigroup #13512
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 3 4 4
1 2 3 4 5 6
1 2 3 4 6 5

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13513
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 4 2 2
1 2 3 2 5 5
1 2 3 2 5 5
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13514
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 4 2 2
1 2 3 2 5 5
1 2 3 2 5 6
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #13516
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 4 2 2
1 2 3 2 5 6
1 2 3 2 6 5
has #4 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13517
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 4 2 4
1 2 3 2 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #13518
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #13519
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3
1 2 2 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
*****
The semigroup #13521
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 3

```

```

1 2 2 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13563
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 2 3 4
1 2 2 2 4 3
1 2 3 4 5 6
1 2 4 3 6 5
has #4 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13571
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 4
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13572
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3

```

```

1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 5
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13573
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 6
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13576
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 4 4
1 2 3 4 4 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13577
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 4 4
1 2 3 4 5 4
1 2 3 4 4 6
has #1 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #13579
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3

```



```

1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 5
has #1 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #13580
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #1 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #13582
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13585
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 4 6
1 2 3 4 4 6
1 2 3 6 6 4
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #13586
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 4 6
1 2 3 4 5 6
1 2 3 6 6 4

```

```

has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #13587
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 5 5
1 2 3 5 4 4
1 2 3 5 4 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #13588
1 1 1 1 1 1
1 2 2 2 2 2
1 2 2 3 3 3
1 2 3 4 5 6
1 2 3 5 6 4
1 2 3 6 4 5
has #1 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3
*****
The semigroup #13591
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 2 2
1 2 2 2 5 5
1 2 2 2 5 5
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13594
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2

```

```

1 2 2 4 2 2
1 2 2 2 5 6
1 2 2 2 6 5
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13607
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 4
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13608
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 5
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5

```

```

S1: 1 2 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13609
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 4 4
1 2 2 4 4 4
1 2 2 4 4 6
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13612
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 4 4
1 2 2 4 4 5
1 2 2 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13615
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 4 4
1 2 2 4 5 5
1 2 2 4 5 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #13618
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2

```

```

1 2 2 4 4 4
1 2 2 4 5 6
1 2 2 4 6 5
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13621
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 4 6
1 2 2 4 4 6
1 2 2 6 6 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #13623
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 4 6
1 2 2 4 5 6
1 2 2 6 6 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #13626
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 2
1 2 2 4 5 5
1 2 2 5 4 4
1 2 2 5 4 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #13646
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 3
1 2 2 4 4 2
1 2 2 4 4 2
1 2 3 2 2 3
has #4 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13647
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 3
1 2 2 4 4 2
1 2 2 4 4 2
1 2 3 2 2 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13652
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 3
1 2 2 4 4 4
1 2 2 4 4 4
1 2 3 4 4 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13654

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 3
1 2 2 4 4 4
1 2 2 4 4 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13660
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 3
1 2 2 4 5 2
1 2 2 5 4 2
1 2 3 2 2 3
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13661
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 3
1 2 2 4 5 2
1 2 2 5 4 2
1 2 3 2 2 6
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13666

```

```

1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 3
1 2 2 4 5 4
1 2 2 5 4 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
*****
The semigroup #13679
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 2 6
1 2 2 4 5 2
1 2 2 5 4 2
1 2 6 2 2 3
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #13688
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 2 3 3
1 2 2 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13744
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 3

```


has #12 resonances.

Resonance #1

S0: 1 2 3 6

S1: 1 2 3 4 5

Resonance #2

S0: 1 2 3 5

S1: 1 2 3 4 6

Resonance #3

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 3 4 6

Resonance #8

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 3 5 6

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #11

S0: 1 2 3 4 5

S1: 1 2 3 5 6

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #13745

1 1 1 1 1 1

1 2 2 2 2 2

1 2 3 3 3 3

1 2 3 3 3 3

1 2 3 3 3 3

1 2 3 3 3 4

has #6 resonances.

Resonance #1

S0: 1 2 3 4

S1: 1 2 3 5 6

Resonance #2

S0: 1 2 3 4 6

S1: 1 2 3 5

Resonance #3

S0: 1 2 3 4 5

S1: 1 2 3 6

Resonance #4

S0: 1 2 3 4 6

S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6
 Resonance #6
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #13746

1 1 1 1 1 1
 1 2 2 2 2 2
 1 2 3 3 3 3
 1 2 3 3 3 3
 1 2 3 3 3 3
 1 2 3 3 3 6

has #7 resonances.

Resonance #1
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #2
 S0: 1 2 3 5 6
 S1: 1 2 3 4
 Resonance #3
 S0: 1 2 3 4 6
 S1: 1 2 3 5
 Resonance #4
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #5
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #6
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6
 Resonance #7
 S0: 1 2 3 4 6
 S1: 1 2 3 4 5

The semigroup #13753

1 1 1 1 1 1
 1 2 2 2 2 2
 1 2 3 3 3 3
 1 2 3 3 3 3
 1 2 3 3 3 4
 1 2 3 3 4 3

has #5 resonances.

Resonance #1
 S0: 1 2 3 6
 S1: 1 2 3 4 5
 Resonance #2
 S0: 1 2 3 5
 S1: 1 2 3 4 6
 Resonance #3
 S0: 1 2 3 4
 S1: 1 2 3 5 6
 Resonance #4
 S0: 1 2 3 4 6

```

S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13754
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 4 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13755
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 4 5
has #2 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13756
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 3 5
1 2 3 3 5 6
has #5 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13759
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 4 3
1 2 3 3 3 4
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13760
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 4 3
1 2 3 3 3 6
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13763
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 4 4
1 2 3 3 4 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4

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S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13764
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 5 3
1 2 3 3 3 6
has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13767
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #3 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13768
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 5 5
1 2 3 3 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 5
*****
The semigroup #13771
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 3
1 2 3 3 5 6
1 2 3 3 6 5
has #4 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13783
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 3 4
1 2 3 4 4 6
has #2 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13785
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 3 5
1 2 3 4 5 6
has #5 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13786
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 4 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13787
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 5 3
1 2 3 4 3 6
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13788
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 3 4
1 2 3 3 5 5
1 2 3 4 5 6
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #13798
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 4 4
1 2 3 4 5 5
1 2 3 4 5 5

```

```

has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4
*****

The semigroup #13799
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 4 4
1 2 3 4 5 5
1 2 3 4 5 6
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4
*****

The semigroup #13801
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 3 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

The semigroup #13804
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 3 3
1 2 3 3 5 5
1 2 3 3 5 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

The semigroup #13807
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 3 3
1 2 3 3 5 6
1 2 3 3 6 5
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5

```



```

S1: 1 2 3 4 6
*****
The semigroup #13820
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13821
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13822
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 4
1 2 3 4 4 6
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13825
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 4
1 2 3 4 4 5
1 2 3 4 5 6
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 3 4 5
*****
The semigroup #13831
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3

```

```

1 2 3 4 4 4
1 2 3 4 5 6
1 2 3 4 6 5
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13834
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 6
1 2 3 4 4 6
1 2 3 6 6 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #13836
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 4 6
1 2 3 4 5 6
1 2 3 6 6 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 6
*****
The semigroup #13839
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 3
1 2 3 4 5 5
1 2 3 5 4 4
1 2 3 5 4 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 3 5 6
*****
The semigroup #13846
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 6 6 6 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13848
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 4 6
1 2 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13850
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 5 6
1 2 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #13856
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 6
1 2 3 3 4 6
1 2 3 4 5 6
1 2 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #13858
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 6
1 2 3 4 3 6
1 2 3 3 5 6
1 2 6 6 6 3

```

```

has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #13861
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
1 2 6 6 6 3
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #13863
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
1 2 6 6 6 3
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
*****
The semigroup #13868
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
1 2 6 6 6 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13872
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 5 5
1 2 3 3 5 5
1 2 5 5 3 3
1 2 5 5 3 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13873
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 5 5
1 2 3 3 5 5
1 2 5 5 3 3
1 2 5 5 3 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13874
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 5 5
1 2 3 4 5 5
1 2 5 5 3 3
1 2 5 5 3 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13876
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 5 5
1 2 3 4 5 6
1 2 5 5 3 3
1 2 5 6 3 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13877
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 3 5 5
1 2 3 4 5 6
1 2 5 5 3 3
1 2 5 6 3 4

```

```

has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #13892
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 4 4 4
1 2 4 3 3 3
1 2 4 3 3 3
1 2 4 3 3 3
has #3 resonances.
Resonance #1
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #13899
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 4 5 6
1 2 4 3 6 5
1 2 5 6 3 4
1 2 6 5 4 3
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 5 6
*****
The semigroup #13900
1 1 1 1 1 1
1 2 2 2 2 2
1 2 3 4 5 6
1 2 4 3 6 5
1 2 5 6 4 3
1 2 6 5 3 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 2 5 6
*****
The semigroup #13905

```

```

1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
1 6 6 6 6 2
has #13 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13907
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 3 6
1 6 6 6 6 2
has #7 resonances.
Resonance #1
S0: 1 2 3 6

```

```

S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

The semigroup #13909

```

1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 5 6
1 6 6 6 6 2

```

has #8 resonances.

```

Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

The semigroup #13923

```

1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6

```



```

1 2 2 2 3 6
1 2 2 3 2 6
1 6 6 6 6 2
has #6 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13925
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 3 3 6
1 6 6 6 6 2
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13927
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 3 4 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 5

```

S1: 1 6
 Resonance #3
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6

The semigroup #13930

1 1 1 1 1 1
 1 2 2 2 2 6
 1 2 2 2 2 6
 1 2 2 2 4 6
 1 2 2 4 5 6
 1 6 6 6 6 2

has #6 resonances.

Resonance #1
 S0: 1 2 5 6
 S1: 1 2 3 4 6
 Resonance #2
 S0: 1 2 3 4 5
 S1: 1 6

Resonance #3
 S0: 1 2 4 5 6
 S1: 1 2 3 6

Resonance #4
 S0: 1 2 3 5 6
 S1: 1 2 4 6

Resonance #5
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6

Resonance #6
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6

The semigroup #13936

1 1 1 1 1 1
 1 2 2 2 2 6
 1 2 2 2 2 6
 1 2 2 3 2 6
 1 2 2 2 3 6
 1 6 6 6 6 2

has #6 resonances.

Resonance #1
 S0: 1 2 3 6
 S1: 1 2 4 5 6
 Resonance #2
 S0: 1 2 3 4 5
 S1: 1 6

Resonance #3
 S0: 1 2 3 5 6
 S1: 1 2 4 6

Resonance #4
 S0: 1 2 3 4 6
 S1: 1 2 5 6

Resonance #5
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6

Resonance #6
 S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
*****
The semigroup #13938
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 3 2 6
1 2 2 2 5 6
1 6 6 6 6 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #13943
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 3 3 6
1 2 2 3 3 6
1 6 6 6 6 2
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13945
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 4 2 6
1 2 2 2 5 6
1 6 6 6 6 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 4 5 6

```

```

S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #13950
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 4 4 6
1 2 2 4 4 6
1 6 6 6 6 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #13952
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 4 4 6
1 2 2 4 5 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #13959
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 4 5 6
1 2 2 5 4 6
1 6 6 6 6 2
has #5 resonances.
Resonance #1
S0: 1 2 4 6

```

```

S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #13978
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 2 3 6
1 2 3 3 5 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #13985
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 2 4 6
1 2 3 4 5 6
1 6 6 6 6 2
has #6 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
*****
The semigroup #13987
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 3 4 6
1 2 3 4 5 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #13990
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 4 2 6
1 2 3 2 5 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #13993
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 4 4 6
1 2 3 4 5 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14013

```

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1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
*****
The semigroup #14015
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
*****
The semigroup #14020
1 1 1 1 1 1
1 2 2 2 2 6
1 2 2 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14022
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 2 2 6
1 2 2 4 2 6
1 2 2 2 5 6
1 6 6 6 6 2
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5

```

```

S1: 1 6
*****
The semigroup #14025
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 2 2 6
1 2 2 4 4 6
1 2 2 4 4 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14027
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 2 2 6
1 2 2 4 4 6
1 2 2 4 5 6
1 6 6 6 6 2
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
*****
The semigroup #14032
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 2 2 6
1 2 2 4 5 6
1 2 2 5 4 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14037
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 2 3 6
1 2 2 4 4 6
1 2 3 4 5 6
1 6 6 6 6 2
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5

```



```

S1: 1 6
*****
The semigroup #14047
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 3 6
1 6 6 6 6 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14049
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 4 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14051
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 5 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14058
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 3 4 6
1 2 3 4 5 6
1 6 6 6 6 2

```

```

has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14060
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 4 3 6
1 2 3 3 5 6
1 6 6 6 6 2
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
*****
The semigroup #14064
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
1 6 6 6 6 2
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
*****
The semigroup #14066
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
1 6 6 6 6 2
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
*****
The semigroup #14071
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5 6
*****
The semigroup #14078
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 5 6
1 2 3 3 5 6
1 2 5 5 3 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5 6
*****
The semigroup #14083
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 3 5 6
1 2 3 4 5 6
1 2 5 5 3 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5 6
*****
The semigroup #14087
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 4 4 6
1 2 4 3 3 6
1 2 4 3 3 6
1 6 6 6 6 2
has #2 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 6
*****
The semigroup #14092
1 1 1 1 1 1
1 2 2 2 2 6
1 2 3 4 5 6
1 2 4 5 3 6
1 2 5 3 4 6
1 6 6 6 6 2
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5

```

```

S1: 1 6
*****
The semigroup #14097
1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 2 5 5
1 5 5 5 2 2
1 5 5 5 2 2
has #13 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14098
1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 2 5 5
1 5 5 5 2 2
1 5 5 5 2 3

```

```

has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

```

*****

```

```

The semigroup #14099

```

```

1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 3 5 5
1 5 5 5 2 2
1 5 5 5 2 2

```

```

has #7 resonances.

```

```

Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

```

*****

```

```

The semigroup #14100

```

```

1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 2 5 5

```

```

1 2 2 3 5 5
1 5 5 5 2 2
1 5 5 5 2 3
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14101
1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 4 5 5
1 5 5 5 2 2
1 5 5 5 2 2
has #8 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14102

```

```

1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 4 5 5
1 5 5 5 2 2
1 5 5 5 2 3
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14104
1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 4 5 6
1 5 5 5 2 2
1 5 5 6 2 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14105
1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 4 5 6
1 5 5 5 2 2
1 5 5 6 2 4
has #5 resonances.
Resonance #1
S0: 1 2 3 4

```

```

S1: 1 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14112
1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 3 5 5
1 2 3 4 5 5
1 5 5 5 2 2
1 5 5 5 2 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14114
1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 3 5 5
1 2 3 4 5 6
1 5 5 5 2 2
1 5 5 6 2 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 4 5 6

```



```

S1: 1 2 3 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14115

```

1 1 1 1 1 1
1 2 2 2 5 5
1 2 2 3 5 5
1 2 3 4 5 6
1 5 5 5 2 2
1 5 5 6 2 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14116

```

1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 2 5 5
1 2 2 4 5 5
1 5 5 5 2 2
1 5 5 5 2 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14118

```

1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 2 5 5
1 2 2 4 5 6
1 5 5 5 2 2
1 5 5 6 2 2

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14119
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 2 5 5
1 2 2 4 5 6
1 5 5 5 2 2
1 5 5 6 2 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14124
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 3 5 5
1 2 3 3 5 5
1 5 5 5 2 2
1 5 5 5 2 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14126
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 3 5 5
1 2 3 4 5 5
1 5 5 5 2 2
1 5 5 5 2 2

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14129
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 3 5 5
1 2 3 4 5 6
1 5 5 5 2 2
1 5 5 6 2 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14133
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 3 5 6
1 2 3 3 5 6
1 5 5 5 2 2
1 5 6 6 2 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #14134
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 3 5 6
1 2 3 3 5 6
1 5 5 5 2 2
1 5 6 6 2 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5

```

```

S1: 1 2 5 6
*****
The semigroup #14135
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 3 5 6
1 2 3 4 5 6
1 5 5 5 2 2
1 5 6 6 2 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #14136
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 3 5 6
1 2 3 4 5 6
1 5 5 5 2 2
1 5 6 6 2 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #14139
1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 4 5 5
1 2 4 3 5 5
1 5 5 5 2 2
1 5 5 5 2 2
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14141

```

```

1 1 1 1 1 1
1 2 2 2 5 5
1 2 3 4 5 6
1 2 4 3 5 6
1 5 5 5 2 2
1 5 6 6 2 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14146
1 1 1 1 1 1
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 2 5 6
1 5 5 5 6 2
1 6 6 6 2 5
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14151
1 1 1 1 1 1
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 3 5 6
1 5 5 5 6 2
1 6 6 6 2 5
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14157
1 1 1 1 1 1
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 4 5 6
1 5 5 5 6 2
1 6 6 6 2 5
has #1 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #14175

```

```

1 1 1 1 1 1
1 2 2 2 5 6
1 2 2 3 5 6
1 2 3 4 5 6
1 5 5 5 6 2
1 6 6 6 2 5
has #1 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****

The semigroup #14212
1 1 1 1 1 1
1 2 2 2 5 6
1 2 3 4 5 6
1 2 4 3 5 6
1 5 5 5 6 2
1 6 6 6 2 5
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****

The semigroup #14217
1 1 1 1 1 1
1 2 2 4 4 4
1 2 2 4 4 4
1 4 4 2 2 2
1 4 4 2 2 2
1 4 4 2 2 2
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #14218
1 1 1 1 1 1
1 2 2 4 4 4
1 2 2 4 4 4
1 4 4 2 2 2
1 4 4 2 2 2
1 4 4 2 2 3
has #7 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #14222
1 1 1 1 1 1
1 2 2 4 4 4
1 2 2 4 4 4
1 4 4 2 2 2
1 4 4 2 2 3
1 4 4 2 3 2
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 4 6

```

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #14223
1 1 1 1 1 1
1 2 2 4 4 4
1 2 2 4 4 4
1 4 4 2 2 2
1 4 4 2 2 3
1 4 4 2 3 3
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #14224
1 1 1 1 1 1
1 2 2 4 4 4
1 2 2 4 4 4
1 4 4 2 2 2
1 4 4 2 3 2
1 4 4 2 2 3
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 6

```



```

S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

The semigroup #14226
1 1 1 1 1 1
1 2 2 4 4 4
1 2 2 4 4 4
1 4 4 2 2 2
1 4 4 2 3 3
1 4 4 2 3 3
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

The semigroup #14227
1 1 1 1 1 1
1 2 2 4 4 4
1 2 2 4 4 5
1 4 4 2 2 2
1 4 4 2 2 2
1 4 5 2 2 2
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

The semigroup #14228
1 1 1 1 1 1
1 2 2 4 4 4
1 2 2 4 4 5

```

```

1 4 4 2 2 2
1 4 4 2 2 2
1 4 5 2 2 3
has #3 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #14229
1 1 1 1 1 1
1 2 2 4 4 4
1 2 3 4 4 4
1 4 4 2 2 2
1 4 4 2 2 2
1 4 4 2 2 2
has #8 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #14233
1 1 1 1 1 1
1 2 2 4 4 4
1 2 3 4 4 6
1 4 4 2 2 2
1 4 4 2 2 2
1 4 6 2 2 2
has #6 resonances.
Resonance #1
S0: 1 2 3

```

```

S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #14234

```

1 1 1 1 1 1
1 2 2 4 4 4
1 2 3 4 4 6
1 4 4 2 2 2
1 4 4 2 2 2
1 4 6 2 2 3
has #5 resonances.

```

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #14237

```

1 1 1 1 1 1
1 2 2 4 4 4
1 2 3 4 5 5
1 4 4 2 2 2
1 4 5 2 2 2
1 4 5 2 2 2
has #3 resonances.

```

```

Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 5

```

```

S1: 1 2 4 5 6
*****
The semigroup #14239
1 1 1 1 1 1
1 2 2 4 4 4
1 2 3 4 5 5
1 4 4 2 2 2
1 4 5 2 3 3
1 4 5 2 3 3
has #2 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
*****
The semigroup #14240
1 1 1 1 1 1
1 2 2 4 4 4
1 2 3 4 5 6
1 4 4 2 2 2
1 4 5 2 2 2
1 4 6 2 2 2
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #14247
1 1 1 1 1 1
1 2 2 4 4 6
1 2 2 4 4 6
1 4 4 6 6 2
1 4 4 6 6 2
1 6 6 2 2 4
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5 6
*****
The semigroup #14253
1 1 1 1 1 1
1 2 2 4 4 6
1 2 3 4 4 6
1 4 4 6 6 2
1 4 4 6 6 2
1 6 6 2 2 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14262
1 1 1 1 1 1
1 2 2 4 4 6
1 2 3 4 5 6
1 4 4 6 6 2
1 4 5 6 6 2
1 6 6 2 2 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14273
1 1 1 1 1 1
1 2 2 4 5 6
1 2 2 4 5 6
1 4 4 2 6 5
1 5 5 6 2 4
1 6 6 5 4 2
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 5
S1: 1 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 5 6
*****
The semigroup #14274
1 1 1 1 1 1
1 2 2 4 5 6
1 2 2 4 5 6
1 4 4 2 6 5
1 5 5 6 4 2
1 6 6 5 2 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
*****
The semigroup #14284

```

```

1 1 1 1 1 1
1 2 2 4 5 6
1 2 3 4 5 6
1 4 4 2 6 5
1 5 5 6 2 4
1 6 6 5 4 2
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5
Resonance #2
S0: 1 2 3 5
S1: 1 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 5 6
*****
The semigroup #14285
1 1 1 1 1 1
1 2 2 4 5 6
1 2 3 4 5 6
1 4 4 2 6 5
1 5 5 6 4 2
1 6 6 5 2 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
*****
The semigroup #14290
1 1 1 1 1 1
1 2 3 3 3 3
1 3 2 2 2 2
1 3 2 2 2 2
1 3 2 2 2 2
1 3 2 2 2 2
has #13 resonances.
Resonance #1
S0: 1 2
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5

```

```

S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #14292
1 1 1 1 1 1
1 2 3 3 3 6
1 3 6 6 6 2
1 3 6 6 6 2
1 3 6 6 6 2
1 6 2 2 2 3
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14294
1 1 1 1 1 1
1 2 3 3 5 5
1 3 5 5 2 2
1 3 5 5 2 2
1 5 2 2 3 3
1 5 2 2 3 3
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14295
1 1 1 1 1 1
1 2 3 3 5 5
1 3 5 5 2 2
1 3 5 5 2 2
1 5 2 2 3 3
1 5 2 2 3 4

```

```

has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14297
1 1 1 1 1 1
1 2 3 3 5 6
1 3 2 2 6 5
1 3 2 2 6 5
1 5 6 6 2 3
1 6 5 5 3 2
has #3 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5
Resonance #2
S0: 1 2 5
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 1 5 6
*****
The semigroup #14298
1 1 1 1 1 1
1 2 3 3 5 6
1 3 2 2 6 5
1 3 2 2 6 5
1 5 6 6 3 2
1 6 5 5 2 3
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 1 5 6
*****
The semigroup #14301
1 1 1 1 1 1
1 2 3 3 5 6
1 3 5 5 6 2
1 3 5 5 6 2
1 5 6 6 2 3
1 6 2 2 3 5
has #1 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 6
*****
The semigroup #14319
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
6 6 6 6 6 1
has #51 resonances.
Resonance #1
S0: 1 5 6

```


S1: 1 2 3 4 6
Resonance #2
S0: 1 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #10
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #11
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #20
S0: 1 2 4 6

S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #22
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #25
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #31
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #34
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #37
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #38
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #39
S0: 1 2 3 4 6

```

S1: 1 2 5 6
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #41
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #42
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #43
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #46
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #49
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #50
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #51
S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

The semigroup #14320

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
6 6 6 6 6 1

```

has #27 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 6

```

S1: 1 4 5 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 3 5 6

```

S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14321
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 5 6
6 6 6 6 6 1
has #32 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4 5
S1: 6
Resonance #12
S0: 1 3 4 5 6

```

S1: 1 2 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #27
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #30
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 5 6

```

S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14333
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 1 6
6 6 6 6 6 1
has #23 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #7
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #15
S0: 1 2 4 5 6

```

```

S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14334
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 2 6
6 6 6 6 6 1
has #17 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 6
Resonance #8
S0: 1 2 4 5 6

```


S1: 1 3 6
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3 6
 Resonance #10
 S0: 1 2 3 5 6
 S1: 1 2 4 6
 Resonance #11
 S0: 1 2 3 4 6
 S1: 1 2 5 6
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #13
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6
 Resonance #14
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #15
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #16
 S0: 1 2 3 4 6
 S1: 1 2 4 5 6
 Resonance #17
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6

The semigroup #14335

1 1 1 1 1 6
 1 1 1 1 1 6
 1 1 1 1 1 6
 1 1 1 1 2 6
 1 1 1 2 3 6
 6 6 6 6 6 1

has #13 resonances.

Resonance #1
 S0: 1 3 5 6
 S1: 1 2 4 6
 Resonance #2
 S0: 1 3 4 6
 S1: 1 2 5 6
 Resonance #3
 S0: 1 2 3 6
 S1: 1 4 5 6
 Resonance #4
 S0: 1 3 5 6
 S1: 1 2 3 4 6
 Resonance #5
 S0: 1 3 4 6
 S1: 1 2 3 5 6
 Resonance #6
 S0: 1 2 3 6
 S1: 1 3 4 5 6
 Resonance #7
 S0: 1 2 3 6

```

S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14336
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 4 6
6 6 6 6 6 1
has #11 resonances.
Resonance #1
S0: 1 4 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14344
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 4 6
1 1 1 4 5 6
6 6 6 6 6 1
has #22 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4 5
S1: 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #15
S0: 1 2 4 5 6

```

```

S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

The semigroup #14351

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 1 6
1 1 1 1 2 6
6 6 6 6 6 1

```

has #23 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5

```

```

S1: 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14352
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 1 6
1 1 1 1 3 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 6

```

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14353
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 1 6
1 1 1 1 5 6
6 6 6 6 6 1
has #16 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 5

```

```

S1: 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14363
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 2 2 6
6 6 6 6 6 1
has #17 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4 6

```

```

S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14364
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 2 3 6
6 6 6 6 6 1
has #9 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6

```



```

S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14371
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 3 6
1 1 1 3 2 6
6 6 6 6 6 1
has #12 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 4 6

```

```

S1: 1 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14372
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 4 1 6
1 1 1 1 5 6
6 6 6 6 6 1
has #18 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 3 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14378
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 4 4 6
1 1 1 4 4 6
6 6 6 6 6 1
has #18 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 4 6

```

S1: 1 4 5 6
 Resonance #13
 S0: 1 3 4 5 6
 S1: 1 2 4 5 6
 Resonance #14
 S0: 1 3 4 5 6
 S1: 1 2 3 4 6
 Resonance #15
 S0: 1 2 4 5 6
 S1: 1 3 4 5 6
 Resonance #16
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6
 Resonance #17
 S0: 1 2 3 4 6
 S1: 1 3 4 5 6
 Resonance #18
 S0: 1 2 3 4 6
 S1: 1 2 4 5 6

The semigroup #14379

1 1 1 1 1 6
 1 1 1 1 1 6
 1 1 1 1 1 6
 1 1 1 4 4 6
 1 1 1 4 5 6
 6 6 6 6 6 1

has #13 resonances.

Resonance #1
 S0: 1 4 5 6
 S1: 1 2 3 6
 Resonance #2
 S0: 1 4 5 6
 S1: 1 2 3 4 6
 Resonance #3
 S0: 1 2 3 4 5
 S1: 6
 Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 6
 Resonance #5
 S0: 1 2 4 5 6
 S1: 1 3 6
 Resonance #6
 S0: 1 3 4 5 6
 S1: 1 2 4 6
 Resonance #7
 S0: 1 3 4 5 6
 S1: 1 2 3 6
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 3 4 6
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3 6
 Resonance #10
 S0: 1 3 4 5 6

```

S1: 1 2 4 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #14385

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 4 5 6
1 1 1 5 4 6
6 6 6 6 6 1

```

has #17 resonances.

```

Resonance #1
S0: 1 4 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 4 6

```

```

S1: 1 3 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14419
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 2 6
1 1 2 2 1 6
6 6 6 6 6 1
has #16 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14420
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 2 6
1 1 2 2 2 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #14421

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 2 6
1 1 2 2 3 6
6 6 6 6 6 1

```

has #8 resonances.

```

Resonance #1
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #14422

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 1 6
1 1 2 1 1 6
6 6 6 6 6 1

```

has #16 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #3
S0: 1 2 5 6

```



```

S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14423
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 1 6
1 1 2 1 2 6
6 6 6 6 6 1
has #16 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #3
S0: 1 2 5 6

```

```

S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14424
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 1 6
1 1 2 1 3 6
6 6 6 6 6 1
has #8 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6

```

```

S1: 1 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14428
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 2 6
1 1 2 2 1 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6

```

```

S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #14429

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 2 6
1 1 2 2 2 6
6 6 6 6 6 1

```

has #14 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14430
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 2 6
1 1 2 2 3 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14431
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 3 6
1 1 2 3 4 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14432

```

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 4 1 6
1 1 2 1 1 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14433
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 4 1 6
1 1 2 1 2 6
6 6 6 6 6 1

```

has #10 resonances.

Resonance #1

S0: 1 2 4 6

S1: 1 3 5 6

Resonance #2

S0: 1 2 4 6

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 4 6

S1: 1 2 3 5 6

Resonance #4

S0: 1 2 3 4 5

S1: 6

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3 6

Resonance #6

S0: 1 2 3 4 6

S1: 1 2 5 6

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 5 6

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 4 5 6

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 3 5 6

The semigroup #14434

1 1 1 1 1 6

1 1 1 1 1 6

1 1 1 1 2 6

1 1 1 4 1 6

1 1 2 1 3 6

6 6 6 6 6 1

has #6 resonances.

Resonance #1

S0: 1 3 4 6

S1: 1 2 5 6

Resonance #2

S0: 1 3 4 6

S1: 1 2 4 5 6

Resonance #3

S0: 1 2 3 4 5

S1: 6

Resonance #4

S0: 1 2 3 4 6

S1: 1 2 5 6

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 4 5 6

Resonance #6

S0: 1 2 3 4 6

S1: 1 2 3 5 6

The semigroup #14435

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 4 4 6
1 1 2 4 4 6
6 6 6 6 6 1

has #8 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3 6

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 4 6

Resonance #3

S0: 1 3 4 6

S1: 1 2 4 5 6

Resonance #4

S0: 1 2 4 6

S1: 1 3 4 5 6

Resonance #5

S0: 1 2 3 4 5

S1: 6

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 6

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 4 5 6

The semigroup #14455

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 3 6
1 1 1 1 3 6
1 1 3 3 5 6
6 6 6 6 6 1

has #12 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4 6

Resonance #2

S0: 1 2 5 6

S1: 1 3 4 6

Resonance #3

S0: 1 3 5 6

S1: 1 2 3 4 6

Resonance #4

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #5

S0: 1 2 3 4 5


```

S1: 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

```

*****

```

```

The semigroup #14460

```

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 3 6
1 1 1 1 4 6
1 1 3 4 5 6
6 6 6 6 6 1

```

```

has #20 resonances.

```

```

Resonance #1
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4 5
S1: 6
Resonance #9
S0: 1 3 4 5 6

```

```

S1: 1 2 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14464
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 3 6
1 1 1 2 1 6
1 1 3 1 5 6
6 6 6 6 6 1
has #11 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 2 3 5 6

```

```

S1: 1 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

The semigroup #14465

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 3 6
1 1 1 2 3 6
1 1 3 3 5 6
6 6 6 6 6 1

```

has #6 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4 6

Resonance #2

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #3

S0: 1 2 3 4 5

S1: 6

Resonance #4

S0: 1 2 3 5 6

S1: 1 3 4 6

Resonance #5

S0: 1 2 3 5 6

S1: 1 3 4 5 6

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4 6

The semigroup #14466

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 3 6
1 1 1 3 4 6
1 1 3 4 5 6
6 6 6 6 6 1

```

has #10 resonances.

Resonance #1

S0: 1 3 5 6

```

S1: 1 2 4 6
Resonance #2
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #14468

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 3 6
1 1 1 4 1 6
1 1 3 1 5 6
6 6 6 6 6 1

```

has #12 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 3 4 5 6

```

```

S1: 1 2 3 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #14471

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 3 6
1 1 1 4 4 6
1 1 3 4 5 6
6 6 6 6 6 1

```

has #11 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 6
*****
The semigroup #14487
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 2 6
1 1 2 1 2 6
1 1 2 2 1 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14488
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 2 6

```

```

1 1 2 1 2 6
1 1 2 2 2 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14489
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 2 6
1 1 2 2 1 6
1 1 2 1 2 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 6

```

```

S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14491
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 2 6
1 1 2 2 2 6
1 1 2 2 2 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 6

```



```

S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14492
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 2 2 6
1 1 2 3 3 6
1 1 2 3 3 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5 6
*****
The semigroup #14495
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 3 3 6
1 1 3 4 4 6
1 1 3 4 4 6
6 6 6 6 6 1
has #8 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #14496
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 3 3 6
1 1 3 4 4 6
1 1 3 4 5 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 3 4 5 6

```

```

S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #14499

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 3 3 6
1 1 3 4 5 6
1 1 3 5 4 6
6 6 6 6 6 1

```

has #9 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

The semigroup #14510

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 2 1 1 6
1 1 1 2 1 6
1 1 1 1 2 6
6 6 6 6 6 1

```

has #20 resonances.

```

Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6

```

```

S1: 1 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14511

```

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 2 1 1 6
1 1 1 2 1 6
1 1 1 1 5 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14514
1 1 1 1 1 6
1 1 1 1 1 6
1 1 2 1 1 6
1 1 1 2 2 6
1 1 1 2 2 6
6 6 6 6 6 1

```

has #16 resonances.

Resonance #1

S0: 1 2 6

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 3 6

S1: 1 4 5 6

Resonance #3

S0: 1 2 5 6

S1: 1 2 3 4 6

Resonance #4

S0: 1 2 4 6

S1: 1 2 3 5 6

Resonance #5

S0: 1 2 3 6

S1: 1 2 4 5 6

Resonance #6

S0: 1 2 3 4 5

S1: 6

Resonance #7

S0: 1 2 4 5 6

S1: 1 3 6

Resonance #8

S0: 1 2 4 5 6

S1: 1 2 3 6

Resonance #9

S0: 1 2 3 5 6

S1: 1 2 4 6

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 5 6

Resonance #11

S0: 1 2 4 5 6

S1: 1 2 3 5 6

Resonance #12

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #13

S0: 1 2 3 5 6

S1: 1 2 4 5 6

Resonance #14

S0: 1 2 3 5 6

S1: 1 2 3 4 6

Resonance #15

S0: 1 2 3 4 6

S1: 1 2 4 5 6

Resonance #16

S0: 1 2 3 4 6

S1: 1 2 3 5 6

The semigroup #14517

1 1 1 1 1 6

1 1 1 1 1 6

1 1 2 1 1 6

1 1 1 4 1 6

1 1 1 1 5 6

6 6 6 6 6 1

```

has #8 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14519
1 1 1 1 1 6
1 1 1 1 1 6
1 1 1 1 1 6
1 1 2 1 1 6
1 1 1 4 4 6
1 1 1 4 4 6
6 6 6 6 6 1
has #9 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 5 6

```

S1: 1 2 3 4 6
 Resonance #9
 S0: 1 2 3 4 6
 S1: 1 2 4 5 6

The semigroup #14520

1 1 1 1 1 6
 1 1 1 1 1 6
 1 1 2 1 1 6
 1 1 1 4 4 6
 1 1 1 4 5 6
 6 6 6 6 6 1

has #6 resonances.

Resonance #1
 S0: 1 2 3 4 5
 S1: 6

Resonance #2
 S0: 1 2 4 5 6
 S1: 1 3 6

Resonance #3
 S0: 1 2 4 5 6
 S1: 1 3 4 6

Resonance #4
 S0: 1 2 4 5 6
 S1: 1 2 3 6

Resonance #5
 S0: 1 2 4 5 6
 S1: 1 3 4 5 6

Resonance #6
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6

The semigroup #14523

1 1 1 1 1 6
 1 1 1 1 1 6
 1 1 2 1 1 6
 1 1 1 4 5 6
 1 1 1 5 4 6
 6 6 6 6 6 1

has #9 resonances.

Resonance #1
 S0: 1 2 4 6
 S1: 1 3 5 6

Resonance #2
 S0: 1 2 4 6
 S1: 1 2 3 5 6

Resonance #3
 S0: 1 2 3 4 5
 S1: 6

Resonance #4
 S0: 1 2 4 5 6
 S1: 1 3 6

Resonance #5
 S0: 1 2 3 4 6
 S1: 1 5 6

Resonance #6
 S0: 1 2 4 5 6

S1: 1 2 3 6
 Resonance #7
 S0: 1 2 3 4 6
 S1: 1 2 5 6
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 3 4 5 6
 Resonance #9
 S0: 1 2 3 4 6
 S1: 1 2 3 5 6

The semigroup #14526

1 1 1 1 1 6
 1 1 1 1 1 6
 1 1 2 1 2 6
 1 1 1 2 2 6
 1 1 2 2 2 6
 6 6 6 6 6 1

has #14 resonances.

Resonance #1
 S0: 1 2 6
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 5 6
 S1: 1 2 3 4 6
 Resonance #3
 S0: 1 2 4 6
 S1: 1 2 3 5 6
 Resonance #4
 S0: 1 2 3 6
 S1: 1 2 4 5 6
 Resonance #5
 S0: 1 2 3 4 5
 S1: 6
 Resonance #6
 S0: 1 2 4 5 6
 S1: 1 2 3 6
 Resonance #7
 S0: 1 2 3 5 6
 S1: 1 2 4 6
 Resonance #8
 S0: 1 2 3 4 6
 S1: 1 2 5 6
 Resonance #9
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #10
 S0: 1 2 4 5 6
 S1: 1 2 3 4 6
 Resonance #11
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #12
 S0: 1 2 3 5 6
 S1: 1 2 3 4 6
 Resonance #13
 S0: 1 2 3 4 6

```

S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #14527

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 2 1 2 6
1 1 1 4 1 6
1 1 2 1 2 6
6 6 6 6 6 1

```

has #10 resonances.

Resonance #1

```

S0: 1 2 4 6
S1: 1 3 5 6

```

Resonance #2

```

S0: 1 2 4 6
S1: 1 3 4 5 6

```

Resonance #3

```

S0: 1 2 4 6
S1: 1 2 3 5 6

```

Resonance #4

```

S0: 1 2 3 4 5
S1: 6

```

Resonance #5

```

S0: 1 2 4 5 6
S1: 1 2 3 6

```

Resonance #6

```

S0: 1 2 3 4 6
S1: 1 2 5 6

```

Resonance #7

```

S0: 1 2 4 5 6
S1: 1 2 3 5 6

```

Resonance #8

```

S0: 1 2 4 5 6
S1: 1 2 3 4 6

```

Resonance #9

```

S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

Resonance #10

```

S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

The semigroup #14528

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 2 1 2 6
1 1 1 4 4 6
1 1 2 4 4 6
6 6 6 6 6 1

```

has #5 resonances.

Resonance #1

```

S0: 1 2 4 6
S1: 1 3 4 5 6

```

Resonance #2

```

S0: 1 2 3 4 5

```

```

S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14532
1 1 1 1 1 6
1 1 1 1 1 6
1 1 2 2 2 6
1 1 2 2 2 6
1 1 2 2 2 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14533
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 1 1 6
1 1 1 4 1 6
1 1 1 1 5 6
6 6 6 6 6 1
has #8 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14535
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 1 1 6
1 1 1 4 4 6
1 1 1 4 4 6
6 6 6 6 6 1
has #10 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6

```

```

S1: 1 2 4 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

The semigroup #14536

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 1 1 6
1 1 1 4 4 6
1 1 1 4 5 6
6 6 6 6 6 1

```

has #6 resonances.

```

Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6

```

The semigroup #14539

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 1 1 6
1 1 1 4 5 6
1 1 1 5 4 6
6 6 6 6 6 1

```

has #10 resonances.

```

Resonance #1
S0: 1 3 4 6

```

```

S1: 1 2 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14545
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 1 3 6
1 1 1 4 4 6
1 1 3 4 5 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14554
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 3 6

```

```

1 1 3 3 3 6
1 1 3 3 3 6
6 6 6 6 6 1
has #14 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14555
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 4 6
6 6 6 6 6 1
has #8 resonances.
Resonance #1
S0: 1 3 4 6

```

```

S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14556
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 5 6
6 6 6 6 6 1
has #9 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 5 6

```



```

S1: 1 2 3 4 6
*****
The semigroup #14561
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 3 6
1 1 3 3 4 6
1 1 3 4 5 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14564
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 3 6
1 1 3 4 3 6
1 1 3 3 5 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14567

```

```

1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 3 6
1 1 3 4 4 6
1 1 3 4 4 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #14568
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 3 6
1 1 3 4 4 6
1 1 3 4 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14571
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 3 6
1 1 3 4 5 6
1 1 3 5 4 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 5

```

```

S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14581
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 5 6
1 1 3 3 5 6
1 1 5 5 3 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #14582
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 3 5 6
1 1 3 4 5 6
1 1 5 5 3 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 4 5

```

```

S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #14586
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 4 4 6
1 1 4 3 3 6
1 1 4 3 3 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #14587
1 1 1 1 1 6
1 1 1 1 1 6
1 1 3 4 5 6
1 1 4 5 3 6
1 1 5 3 4 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2 6
*****
The semigroup #14612
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 2 6
1 1 1 1 2 6
1 2 2 2 5 6
6 6 6 6 6 1
has #9 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14616
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 2 6
1 1 1 1 4 6
1 2 2 4 5 6
6 6 6 6 6 1
has #10 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 5 6

```

```

S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14619
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 2 6
1 1 1 2 4 6
1 2 2 4 5 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14621
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 2 6
1 1 1 4 1 6
1 2 2 1 5 6
6 6 6 6 6 1

```

has #6 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3 6

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 4 6

Resonance #3

S0: 1 2 3 4 5

S1: 6

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3 6

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3 5 6

Resonance #6

S0: 1 2 4 5 6

S1: 1 2 3 4 6

The semigroup #14623

1 1 1 1 1 6

1 1 1 1 2 6

1 1 1 1 2 6

1 1 1 4 4 6

1 2 2 4 5 6

6 6 6 6 6 1

has #5 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3 6

Resonance #2

S0: 1 4 5 6

S1: 1 2 3 4 6

Resonance #3

S0: 1 2 3 4 5

S1: 6

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3 6

Resonance #5

S0: 1 2 4 5 6

S1: 1 2 3 4 6

The semigroup #14632

1 1 1 1 1 6

1 1 1 1 2 6

1 1 1 1 3 6

1 1 1 1 4 6

1 2 3 4 5 6

6 6 6 6 6 1

has #20 resonances.

Resonance #1

S0: 1 5 6

S1: 1 2 3 4 6

Resonance #2

S0: 1 4 5 6

```

S1: 1 2 3 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4 5
S1: 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14633

```



```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 3 6
1 1 1 2 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #10 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14634
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 3 6
1 1 1 4 1 6
1 2 3 1 5 6
6 6 6 6 6 1
has #11 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 3 4 5 6

```

```

S1: 1 2 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 6

```

The semigroup #14635

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 1 3 6
1 1 1 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1

```

has #11 resonances.

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #9
S0: 1 2 4 5 6

```

```

S1: 1 2 3 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 6

```

The semigroup #14649

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 3 6
1 1 2 1 4 6
1 2 3 4 5 6
6 6 6 6 6 1

```

has #9 resonances.

Resonance #1

```

S0: 1 4 5 6
S1: 1 2 3 6

```

Resonance #2

```

S0: 1 3 5 6
S1: 1 2 4 6

```

Resonance #3

```

S0: 1 2 5 6
S1: 1 3 4 6

```

Resonance #4

```

S0: 1 2 5 6
S1: 1 2 3 4 6

```

Resonance #5

```

S0: 1 2 3 4 5
S1: 6

```

Resonance #6

```

S0: 1 2 4 5 6
S1: 1 2 3 6

```

Resonance #7

```

S0: 1 2 3 5 6
S1: 1 2 4 6

```

Resonance #8

```

S0: 1 2 4 5 6
S1: 1 2 3 4 6

```

Resonance #9

```

S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

The semigroup #14650

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 3 6
1 1 2 2 4 6
1 2 3 4 5 6
6 6 6 6 6 1

```

has #7 resonances.

Resonance #1

```

S0: 1 2 5 6
S1: 1 3 4 6

```

Resonance #2

```

S0: 1 2 5 6

```

```

S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14651
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 2 3 6
1 1 2 3 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14652
1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 3 1 6
1 1 3 4 1 6
1 2 1 1 5 6
6 6 6 6 6 1
has #8 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 4 5 6

```

```

S1: 1 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****

```

The semigroup #14656

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 1 3 3 6
1 1 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #7 resonances.

```

```

Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 4 6

```

The semigroup #14659

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 2 1 3 6
1 1 1 2 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #9 resonances.

```

```

Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 5 6

```

```

S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

The semigroup #14660

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 2 1 3 6
1 1 1 4 1 6
1 2 3 1 5 6
6 6 6 6 6 1

```

has #5 resonances.

```

Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6

```

The semigroup #14661

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 2 1 3 6
1 1 1 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1

```

has #5 resonances.

```

Resonance #1
S0: 1 2 3 4 5

```

```

S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14663
1 1 1 1 1 6
1 1 1 1 2 6
1 1 2 2 3 6
1 1 2 2 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14665
1 1 1 1 1 6
1 1 1 1 2 6
1 1 2 2 3 6
1 1 2 2 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6

```

```

S1: 1 2 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14666
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 1 1 6
1 1 1 4 1 6
1 2 1 1 5 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14667
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 1 1 6
1 1 1 4 4 6
1 2 1 4 5 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14671

```



```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 1 3 6
1 1 1 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14675
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 3 1 6
1 1 3 3 1 6
1 2 1 1 5 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14676
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 3 1 6

```

```

1 1 3 3 2 6
1 2 1 2 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14677
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 3 1 6
1 1 3 4 1 6
1 2 1 1 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14679
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 3 3 6
1 1 3 3 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6

```

```

S1: 1 3 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****

```

The semigroup #14681

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 3 3 6
1 1 3 3 4 6
1 2 3 4 5 6
6 6 6 6 6 1

```

has #7 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

The semigroup #14682

```

1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 3 3 6
1 1 3 4 3 6
1 2 3 3 5 6
6 6 6 6 6 1

```

has #4 resonances.

```

Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 6
*****
The semigroup #14683
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 3 3 6
1 1 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14688
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 4 1 6
1 1 4 3 1 6
1 2 1 1 5 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14689
1 1 1 1 1 6
1 1 1 1 2 6
1 1 3 4 3 6

```

```

1 1 4 3 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14713
1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 2 2 6
1 2 2 4 4 6
1 2 2 4 4 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14714
1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 2 2 6
1 2 2 4 4 6
1 2 2 4 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 4 5 6

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S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14717
1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 2 2 6
1 2 2 4 5 6
1 2 2 5 4 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14723
1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 2 3 6
1 2 2 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 4 5 6

```

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S1: 1 2 3 4 6
*****
The semigroup #14726
1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
*****
The semigroup #14727
1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
*****
The semigroup #14729

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1 1 1 1 1 6
1 1 1 2 2 6
1 1 1 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14731
1 1 1 1 1 6
1 1 1 2 2 6
1 1 2 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
*****
The semigroup #14732
1 1 1 1 1 6
1 1 1 2 2 6
1 1 2 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5

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S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
*****
The semigroup #14734
1 1 1 1 1 6
1 1 1 2 2 6
1 1 2 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14735
1 1 1 1 1 6
1 1 1 2 2 6
1 1 3 1 1 6
1 2 1 4 4 6
1 2 1 4 4 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14736
1 1 1 1 1 6
1 1 1 2 2 6
1 1 3 1 1 6
1 2 1 4 4 6
1 2 1 4 5 6
6 6 6 6 6 1

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
*****
The semigroup #14738
1 1 1 1 1 6
1 1 1 2 2 6
1 1 3 1 1 6
1 2 1 4 5 6
1 2 1 5 4 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14739
1 1 1 1 1 6
1 1 1 2 2 6
1 1 3 1 3 6
1 2 1 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
*****
The semigroup #14740
1 1 1 1 1 6
1 1 1 2 2 6
1 1 3 3 3 6

```

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1 2 3 4 4 6
1 2 3 4 4 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
*****
The semigroup #14741
1 1 1 1 1 6
1 1 1 2 2 6
1 1 3 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
*****
The semigroup #14743
1 1 1 1 1 6
1 1 1 2 2 6
1 1 3 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14751
1 1 1 1 1 6
1 1 1 2 3 6
1 1 1 3 2 6

```

```

1 2 3 4 5 6
1 3 2 5 4 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14754
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 3 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14755
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 4 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5 6
*****
The semigroup #14756
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14759
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 3 6
1 2 3 3 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14760
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 3 6
1 2 3 4 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
*****
The semigroup #14762
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 3 6

```

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1 2 3 4 4 6
1 2 3 4 4 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
*****
The semigroup #14763
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
*****
The semigroup #14765
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14768
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 5 6
1 2 3 3 5 6
1 2 5 5 3 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5 6
*****
The semigroup #14769
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 3 5 6
1 2 3 4 5 6
1 2 5 5 3 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5 6
*****
The semigroup #14770
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 4 4 6
1 2 4 3 3 6
1 2 4 3 3 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 6
*****
The semigroup #14771
1 1 1 1 1 6
1 1 2 2 2 6
1 2 3 4 5 6
1 2 4 5 3 6
1 2 5 3 4 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 6
*****
The semigroup #14772

```

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1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 1 1 6
1 1 1 4 1 6
1 1 1 1 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14773
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 1 1 6
1 1 1 4 4 6
1 1 1 4 4 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14774
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 1 1 6
1 1 1 4 4 6
1 1 1 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14776
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 1 1 6
1 1 1 4 5 6
1 1 1 5 4 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6

```



```

S1: 1 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14777
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 1 3 6
1 1 1 4 4 6
1 1 3 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14778
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 3 6
6 6 6 6 6 1
has #8 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14779

```

```

1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 4 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14780
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 3 6
1 1 3 3 3 6
1 1 3 3 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14783
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 3 6
1 1 3 3 4 6
1 1 3 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
*****
The semigroup #14784
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 3 6
1 1 3 4 3 6
1 1 3 3 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14786
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 3 6
1 1 3 4 4 6
1 1 3 4 4 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #14787
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 3 6
1 1 3 4 4 6
1 1 3 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14789
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 3 6
1 1 3 4 5 6
1 1 3 5 4 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #3
S0: 1 2 3 4 6

```

```

S1: 1 2 3 5 6
*****
The semigroup #14792
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 5 6
1 1 3 3 5 6
1 1 5 5 3 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #14793
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 3 5 6
1 1 3 4 5 6
1 1 5 5 3 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5 6
*****
The semigroup #14794
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 4 4 6
1 1 4 3 3 6
1 1 4 3 3 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 5

```

```

S1: 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #14795
1 1 1 1 1 6
1 2 1 1 1 6
1 1 3 4 5 6
1 1 4 5 3 6
1 1 5 3 4 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14796
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 1 3 6
1 1 1 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14797
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 3 1 6
1 1 3 3 1 6
1 2 1 1 2 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14798
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 3 1 6

```

```

1 1 3 3 1 6
1 2 1 1 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14800
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 3 1 6
1 1 3 4 1 6
1 2 1 1 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14803
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 3 3 6
1 1 3 3 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14805
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 3 3 6
1 1 3 3 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6

```

```

S1: 1 3 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14806
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 3 3 6
1 1 3 4 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14807
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 3 3 6
1 1 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14811
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 4 1 6
1 1 4 3 1 6
1 2 1 1 2 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14812

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```

1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 4 1 6
1 1 4 3 1 6
1 2 1 1 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14814
1 1 1 1 1 6
1 2 1 1 2 6
1 1 3 4 3 6
1 1 4 3 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 6
*****
The semigroup #14815
1 1 1 1 1 6
1 2 1 1 5 6
1 1 3 4 1 6
1 1 4 3 1 6
1 5 1 1 2 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 6
Resonance #4
S0: 1 2 3 4 6

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S1: 1 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #14816
1 1 1 1 1 6
1 2 1 2 2 6
1 1 3 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14817
1 1 1 1 1 6
1 2 1 2 2 6
1 1 3 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14819
1 1 1 1 1 6
1 2 1 2 2 6
1 1 3 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14820
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
6 6 6 6 6 1
has #13 resonances.
Resonance #1
S0: 1 2 5 6

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S1: 1 2 3 4 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14821
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 3 6
6 6 6 6 6 1
has #7 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 6

```

```

S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

```

The semigroup #14822

```

1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 5 6
6 6 6 6 6 1
has #8 resonances.

```

```

Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

```

*****
The semigroup #14829

```

```

1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 3 2 6
6 6 6 6 6 1
has #6 resonances.

```

```

Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 4 6

```

```

S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14830
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 3 3 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14831
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 3 4 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14832
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6

```

```

1 2 2 2 4 6
1 2 2 4 5 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6

```

```

*****

```

```

The semigroup #14835

```

```

1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 3 2 6
1 2 2 2 3 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

```

*****

```

```

The semigroup #14836

```

```

1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 3 2 6
1 2 2 2 5 6
6 6 6 6 6 1

```

```

has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14839
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 3 3 6
1 2 2 3 3 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14840
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 4 2 6
1 2 2 2 5 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14843

```

```

1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 4 4 6
1 2 2 4 4 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14844
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 4 4 6
1 2 2 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14847
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 2 6
1 2 2 4 5 6
1 2 2 5 4 6
6 6 6 6 6 1
has #5 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 4 6

```

```

S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14859
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 2 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14861
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 2 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #6 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14862
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 3 4 6
1 2 3 4 5 6
6 6 6 6 6 1

```



```

has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14863
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 4 2 6
1 2 3 2 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14864
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 2 3 6
1 2 2 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
*****
The semigroup #14874
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5

```

```

S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
*****
The semigroup #14875
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
*****
The semigroup #14877
1 1 1 1 1 6
1 2 2 2 2 6
1 2 2 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14878
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 2 2 6
1 2 2 4 2 6
1 2 2 2 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14880
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 2 2 6
1 2 2 4 4 6
1 2 2 4 4 6
6 6 6 6 6 1

```

```

has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14881
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 2 2 6
1 2 2 4 4 6
1 2 2 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14883
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 2 2 6
1 2 2 4 5 6
1 2 2 5 4 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14887
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 2 3 6
1 2 2 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14896
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 3 6
6 6 6 6 6 1

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14897
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 4 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14898
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 3 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14901
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 3 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 3 4 6
*****
The semigroup #14902

```

```

1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 4 3 6
1 2 3 3 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****

The semigroup #14904
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 4 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****

The semigroup #14905
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 4 4 6
1 2 3 4 5 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****

The semigroup #14907
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 3 6
1 2 3 4 5 6
1 2 3 5 4 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****

The semigroup #14910
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 5 6
1 2 3 3 5 6
1 2 5 5 3 6
6 6 6 6 6 1

```

```

has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5 6
*****
The semigroup #14912
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 3 5 6
1 2 3 4 5 6
1 2 5 5 3 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 5 6
*****
The semigroup #14915
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 4 4 6
1 2 4 3 3 6
1 2 4 3 3 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14918
1 1 1 1 1 6
1 2 2 2 2 6
1 2 3 4 5 6
1 2 4 5 3 6
1 2 5 3 4 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14922
1 1 1 1 1 6
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 2 5 6
1 5 5 5 2 6
6 6 6 6 6 1

```

```

has #4 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14923
1 1 1 1 1 6
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 3 5 6
1 5 5 5 2 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14924
1 1 1 1 1 6
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 4 5 6
1 5 5 5 2 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #14926
1 1 1 1 1 6
1 2 2 2 5 6
1 2 2 3 5 6
1 2 3 4 5 6
1 5 5 5 2 6
6 6 6 6 6 1

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #14927
1 1 1 1 1 6
1 2 2 2 5 6
1 2 3 2 5 6
1 2 2 4 5 6
1 5 5 5 2 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
*****
The semigroup #14928
1 1 1 1 1 6
1 2 2 2 5 6
1 2 3 3 5 6
1 2 3 3 5 6
1 5 5 5 2 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
*****
The semigroup #14929
1 1 1 1 1 6
1 2 2 2 5 6
1 2 3 3 5 6
1 2 3 4 5 6
1 5 5 5 2 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
*****
The semigroup #14931

```



```

1 1 1 1 1 6
1 2 2 2 5 6
1 2 3 4 5 6
1 2 4 3 5 6
1 5 5 5 2 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #14932
1 1 1 1 1 6
1 2 2 4 4 6
1 2 2 4 4 6
1 4 4 2 2 6
1 4 4 2 2 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14933
1 1 1 1 1 6
1 2 2 4 4 6
1 2 2 4 4 6
1 4 4 2 2 6
1 4 4 2 3 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14934

```

```

1 1 1 1 1 6
1 2 2 4 4 6
1 2 3 4 4 6
1 4 4 2 2 6
1 4 4 2 2 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14936
1 1 1 1 1 6
1 2 2 4 4 6
1 2 3 4 5 6
1 4 4 2 2 6
1 4 5 2 2 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14937
1 1 1 1 1 6
1 2 2 4 4 6
1 2 3 4 5 6
1 4 4 2 2 6
1 4 5 2 3 6
6 6 6 6 6 1
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #14940
1 1 1 1 1 6
1 2 2 4 5 6
1 2 2 4 5 6

```

```

1 4 4 5 2 6
1 5 5 2 4 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14941
1 1 1 1 1 6
1 2 2 4 5 6
1 2 3 4 5 6
1 4 4 5 2 6
1 5 5 2 4 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14942
1 1 1 1 1 6
1 2 3 3 3 6
1 3 2 2 2 6
1 3 2 2 2 6
1 3 2 2 2 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #14943
1 1 1 1 1 6
1 2 3 3 5 6
1 3 5 5 2 6
1 3 5 5 2 6
1 5 2 2 3 6
6 6 6 6 6 1
has #1 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14944
1 1 1 1 1 6
1 2 3 4 5 6
1 3 2 5 4 6

```

```

1 4 5 2 3 6
1 5 4 3 2 6
6 6 6 6 6 1
has #4 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14945
1 1 1 1 1 6
1 2 3 4 5 6
1 3 2 5 4 6
1 4 5 3 2 6
1 5 4 2 3 6
6 6 6 6 6 1
has #2 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 6
*****
The semigroup #14946
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #51 resonances.
Resonance #1
S0: 1 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 3 5
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 5 6
Resonance #6
S0: 1 4 5 6

```

S1: 1 2 3 5
Resonance #7
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #11
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #19
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #25
S0: 1 2 4 5 6

S1: 1 3 5
Resonance #26
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #31
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #34
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #35
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #36
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #41
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #42
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #44
S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #47
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #48
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #14947

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #27 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5

```

```

S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14948

```


1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 2 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #27 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 5 6

```

S1: 1 3 4 5
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14949

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 2 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #23 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 5 6

```

```

S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14950
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5

```

```

1 1 1 2 5 5
5 5 5 5 1 1
5 5 5 5 1 3
has #14 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14951
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #32 resonances.
Resonance #1
S0: 1 4 5

```

S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 4 5 6

```

S1: 1 2 3 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14952

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 4 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #16 resonances.

Resonance #1

```

S0: 1 2 3 4
S1: 5 6

```

Resonance #2

```

S0: 1 2 4 5
S1: 1 3 5 6

```

Resonance #3

```

S0: 1 2 4 5
S1: 1 3 4 5 6

```

Resonance #4

```

S0: 1 2 4 5

```

```

S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14954

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1

```

has #22 resonances.

```

Resonance #1
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5

```

```

S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14955

```


1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 4 5 6
5 5 5 5 1 1
5 5 5 6 1 4
has #17 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
*****
The semigroup #14975
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 2 5 5
1 1 2 1 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #23 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 5 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #6
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 5 6

```

S1: 1 2 4 5
 Resonance #17
 S0: 1 2 3 4 5
 S1: 1 2 5 6
 Resonance #18
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #19
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #20
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #21
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #22
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #23
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #14976

1 1 1 1 5 5
 1 1 1 1 5 5
 1 1 1 2 5 5
 1 1 2 1 5 5
 5 5 5 5 1 1
 5 5 5 5 1 2

has #16 resonances.

Resonance #1
 S0: 1 2 5
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 3 4
 S1: 5 6
 Resonance #3
 S0: 1 2 5 6
 S1: 1 3 4 5
 Resonance #4
 S0: 1 2 5 6
 S1: 1 2 3 4 5
 Resonance #5
 S0: 1 2 4 5
 S1: 1 2 3 5 6
 Resonance #6
 S0: 1 2 3 5
 S1: 1 2 4 5 6
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 5 6
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #9
 S0: 1 2 3 5 6

S1: 1 2 4 5
 Resonance #10
 S0: 1 2 3 4 5
 S1: 1 2 5 6
 Resonance #11
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #13
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #14
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #15
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #16
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #14977

1 1 1 1 5 5
 1 1 1 1 5 5
 1 1 1 2 5 5
 1 1 2 2 5 5
 5 5 5 5 1 1
 5 5 5 5 1 1

has #17 resonances.

Resonance #1
 S0: 1 2 5
 S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 3 4
 S1: 5 6
 Resonance #3
 S0: 1 2 5 6
 S1: 1 3 4 5
 Resonance #4
 S0: 1 2 5 6
 S1: 1 3 4 5 6
 Resonance #5
 S0: 1 2 5 6
 S1: 1 2 3 4 5
 Resonance #6
 S0: 1 2 4 5
 S1: 1 2 3 5 6
 Resonance #7
 S0: 1 2 3 5
 S1: 1 2 4 5 6
 Resonance #8
 S0: 1 2 3 4 5
 S1: 1 5 6
 Resonance #9
 S0: 1 2 4 5 6

```

S1: 1 2 3 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14978

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 2 5 5
1 1 2 2 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #16 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #8
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14979

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 2 5 5
1 1 2 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1

```

has #11 resonances.

```

Resonance #1
S0: 1 3 5
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5

```

S1: 1 2 5 6
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #10
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #11
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #14980

1 1 1 1 5 5
 1 1 1 1 5 5
 1 1 1 2 5 5
 1 1 2 3 5 5
 5 5 5 5 1 1
 5 5 5 5 1 2

has #8 resonances.

Resonance #1

S0: 1 2 3 4
 S1: 5 6

Resonance #2

S0: 1 2 3 5
 S1: 1 2 4 5 6

Resonance #3

S0: 1 2 3 4 5
 S1: 1 5 6

Resonance #4

S0: 1 2 3 5 6
 S1: 1 2 4 5

Resonance #5

S0: 1 2 3 4 5
 S1: 1 2 5 6

Resonance #6

S0: 1 2 3 5 6
 S1: 1 2 4 5 6

Resonance #7

S0: 1 2 3 5 6
 S1: 1 2 3 4 5

Resonance #8

S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #14981

1 1 1 1 5 5
 1 1 1 1 5 5
 1 1 1 3 5 5
 1 1 3 4 5 5
 5 5 5 5 1 1
 5 5 5 5 1 1

has #22 resonances.

Resonance #1

S0: 1 4 5
 S1: 1 2 3 5 6

Resonance #2

S0: 1 2 3 4

S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 5


```

S1: 1 3 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14982
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 3 5 5
1 1 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 2
has #11 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14984
1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 3 5 5
1 1 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #20 resonances.
Resonance #1
S0: 1 4 5

```

S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #14985

1 1 1 1 5 5
1 1 1 1 5 5
1 1 1 3 5 5
1 1 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 3

has #10 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #3

S0: 1 3 4 5

S1: 1 2 3 5 6

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 5

Resonance #5

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 3 5

Resonance #7

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #8

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #9

S0: 1 3 4 5 6

S1: 1 2 3 5 6

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #14994

1 1 1 1 5 5
1 1 1 1 5 5
1 1 2 1 5 5
1 1 1 2 5 5
5 5 5 5 1 1
5 5 5 5 1 1

has #23 resonances.

Resonance #1

S0: 1 2 5

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 5 6

Resonance #3

S0: 1 2 5 6

S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14995
1 1 1 1 5 5
1 1 1 1 5 5
1 1 2 1 5 5
1 1 1 2 5 5
5 5 5 5 1 1
5 5 5 5 1 2
has #20 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #15
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14996

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 2 1 5 5
1 1 1 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1

```

has #16 resonances.

```

Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 2 3 4 5

```

```

S1: 1 2 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #14997
1 1 1 1 5 5
1 1 1 1 5 5
1 1 2 1 5 5
1 1 1 4 5 5
5 5 5 5 1 1
5 5 5 5 1 2
has #14 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #11
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #14999

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 2 1 5 5
1 1 1 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #11 resonances.

```

```

Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #15000

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 2 1 5 5

```



```

1 1 1 4 5 6
5 5 5 5 1 1
5 5 5 6 1 4
has #9 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15005
1 1 1 1 5 5
1 1 1 1 5 5
1 1 2 2 5 5
1 1 2 2 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #17 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5

```

```

S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #15006

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 2 2 5 5
1 1 2 2 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #16 resonances.

```

Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5

```

S1: 1 2 3 5 6
 Resonance #6
 S0: 1 2 3 5
 S1: 1 2 4 5 6
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 5 6
 Resonance #8
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 2 4 5
 Resonance #10
 S0: 1 2 3 4 5
 S1: 1 2 5 6
 Resonance #11
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #12
 S0: 1 2 4 5 6
 S1: 1 2 3 4 5
 Resonance #13
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6
 Resonance #14
 S0: 1 2 3 5 6
 S1: 1 2 3 4 5
 Resonance #15
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #16
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #15007

1 1 1 1 5 5
 1 1 1 1 5 5
 1 1 3 1 5 5
 1 1 1 4 5 5
 5 5 5 5 1 1
 5 5 5 5 1 1

has #18 resonances.

Resonance #1
 S0: 1 2 3 4
 S1: 5 6
 Resonance #2
 S0: 1 3 4 5
 S1: 1 2 5 6
 Resonance #3
 S0: 1 3 4 5
 S1: 1 2 4 5 6
 Resonance #4
 S0: 1 3 4 5
 S1: 1 2 3 5 6
 Resonance #5
 S0: 1 3 4 5 6

```

S1: 1 2 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #15008

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 1 5 5
1 1 1 4 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #8 resonances.

```

Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5

```

```

S1: 1 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #15010

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 1 5 5
1 1 1 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1

```

has #12 resonances.

```

Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 3 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15011
1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 1 5 5
1 1 1 4 5 6
5 5 5 5 1 1
5 5 5 6 1 4
has #10 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15026
1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 3 5 5
1 1 3 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #18 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5

```

```

S1: 1 2 5 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15027
1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 3 5 5
1 1 3 3 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #9 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 2 3 5

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #4

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #5

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #8

S0: 1 2 3 4 5

S1: 1 3 4 5 6

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #15029

1 1 1 1 5 5

1 1 1 1 5 5

1 1 3 3 5 5

1 1 3 4 5 5

5 5 5 5 1 1

5 5 5 5 1 1

has #13 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #3

S0: 1 3 4 5

S1: 1 2 3 5 6

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 5

Resonance #5

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 5 6

Resonance #7

S0: 1 3 4 5 6


```

S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #15030

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 3 5 5
1 1 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #6 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #3

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #4

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #5

S0: 1 2 3 4 5

S1: 1 3 4 5 6

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #15033

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 3 5 5
1 1 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1

```

has #11 resonances.

Resonance #1

S0: 1 2 3 4

```

S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15044
1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 3 5 6
1 1 3 3 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #8 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5

```

```

S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****

```

The semigroup #15045

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 3 5 6
1 1 3 3 5 6
5 5 5 5 1 1
5 5 6 6 1 3

```

has #7 resonances.

```

Resonance #1
S0: 1 2 3 4
S1: 5 6

```

```

Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6

```

```

Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5

```

```

Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6

```

```

Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6

```

```

Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5 6

```

```

Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5 6

```

The semigroup #15046

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 3 5 6
1 1 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 1

```

has #7 resonances.

```

Resonance #1
S0: 1 2 3 4
S1: 5 6

```

```

Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6

```

```

Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5

```

```

Resonance #4
S0: 1 2 3 4 5

```

```

S1: 1 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5 6
*****

```

The semigroup #15047

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 3 5 6
1 1 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 3
has #6 resonances.

```

```

Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5 6
*****

```

The semigroup #15054

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 4 5 5
1 1 4 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #17 resonances.

```

```

Resonance #1
S0: 1 3 5
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 5

```

```

S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****

```

The semigroup #15055

```

1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 4 5 5
1 1 4 3 5 5
5 5 5 5 1 1
5 5 5 5 1 2

```

has #9 resonances.

Resonance #1

```

S0: 1 2 3 4
S1: 5 6

```

Resonance #2

```

S0: 1 2 3 5
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 2 3 5

```

```

S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15057
1 1 1 1 5 5
1 1 1 1 5 5
1 1 3 4 5 6
1 1 4 3 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #9 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15096

```

```

1 1 1 1 5 5
1 1 1 2 5 5
1 1 1 2 5 5
1 2 2 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #12 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15098
1 1 1 1 5 5
1 1 1 2 5 5
1 1 1 2 5 5
1 2 2 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #10 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4

```

```

S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15099
1 1 1 1 5 5
1 1 1 2 5 5
1 1 1 2 5 5
1 2 2 4 5 6
5 5 5 5 1 1
5 5 5 6 1 2
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15105

```


1 1 1 1 5 5
1 1 1 2 5 5
1 1 1 3 5 5
1 2 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #20 resonances.
Resonance #1
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 5

```

S1: 1 2 5 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #15107

```

1 1 1 1 5 5
1 1 1 2 5 5
1 1 1 3 5 5
1 2 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1

```

has #20 resonances.

```

Resonance #1
S0: 1 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 4 5 6
S1: 1 2 3 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #13
S0: 1 3 4 5 6

```

S1: 1 2 3 5
 Resonance #14
 S0: 1 2 4 5 6
 S1: 1 3 5 6
 Resonance #15
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #16
 S0: 1 2 3 4 5
 S1: 1 3 5 6
 Resonance #17
 S0: 1 2 3 4 5
 S1: 1 2 5 6
 Resonance #18
 S0: 1 3 4 5 6
 S1: 1 2 3 5 6
 Resonance #19
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6
 Resonance #20
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #15108

1 1 1 1 5 5
 1 1 1 2 5 5
 1 1 1 3 5 5
 1 2 3 4 5 6
 5 5 5 5 1 1
 5 5 5 6 1 2

has #10 resonances.

Resonance #1
 S0: 1 2 3 4
 S1: 5 6
 Resonance #2
 S0: 1 2 4 5
 S1: 1 3 5 6
 Resonance #3
 S0: 1 2 4 5
 S1: 1 2 3 5 6
 Resonance #4
 S0: 1 2 4 5 6
 S1: 1 3 5
 Resonance #5
 S0: 1 2 3 4 5
 S1: 1 5 6
 Resonance #6
 S0: 1 2 4 5 6
 S1: 1 2 3 5
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 3 5 6
 Resonance #8
 S0: 1 2 3 4 5
 S1: 1 2 5 6
 Resonance #9
 S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15109
1 1 1 1 5 5
1 1 1 2 5 5
1 1 2 3 5 5
1 2 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #10 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15111
1 1 1 1 5 5
1 1 1 2 5 5
1 1 2 3 5 5
1 2 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #10 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5

```

```

S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15112
1 1 1 1 5 5
1 1 1 2 5 5
1 1 2 3 5 5
1 2 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 2
has #9 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 3 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #8
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15113
1 1 1 1 5 5
1 1 1 2 5 5
1 1 3 1 5 5
1 2 1 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #12 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15116
1 1 1 1 5 5
1 1 1 2 5 5
1 1 3 1 5 5
1 2 1 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1

```

has #11 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #3

S0: 1 3 4 5

S1: 1 2 3 5 6

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 5

Resonance #5

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 5 6

Resonance #7

S0: 1 3 4 5 6

S1: 1 2 3 5

Resonance #8

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #10

S0: 1 3 4 5 6

S1: 1 2 3 5 6

Resonance #11

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #15117

1 1 1 1 5 5

1 1 1 2 5 5

1 1 3 1 5 5

1 2 1 4 5 6

5 5 5 5 1 1

5 5 5 6 1 2

has #5 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #3

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #4

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #5

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #15119

1 1 1 1 5 5
1 1 1 2 5 5
1 1 3 1 5 6
1 2 1 4 5 5
5 5 5 5 1 1
5 5 6 5 1 1

has #8 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #3

S0: 1 3 4 5 6

S1: 1 2 5

Resonance #4

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #5

S0: 1 3 4 5 6

S1: 1 2 5 6

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #7

S0: 1 3 4 5 6

S1: 1 2 3 5 6

Resonance #8

S0: 1 2 3 4 5

S1: 1 2 4 5 6

The semigroup #15120

1 1 1 1 5 5
1 1 1 2 5 5
1 1 3 1 5 6
1 2 1 4 5 5
5 5 5 5 1 1
5 5 6 5 1 3

has #7 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #3

S0: 1 3 4 5 6

S1: 1 2 5

Resonance #4

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #5

S0: 1 2 3 4 5


```

S1: 1 2 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15121
1 1 1 1 5 5
1 1 1 2 5 5
1 1 3 3 5 5
1 2 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #11 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15124
1 1 1 1 5 5
1 1 1 2 5 5
1 1 3 3 5 5
1 2 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1

```

has #11 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 3 4 5

S1: 1 2 5 6

Resonance #3

S0: 1 3 4 5

S1: 1 2 3 5 6

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 5

Resonance #5

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #6

S0: 1 3 4 5 6

S1: 1 2 5 6

Resonance #7

S0: 1 3 4 5 6

S1: 1 2 3 5

Resonance #8

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #10

S0: 1 3 4 5 6

S1: 1 2 3 5 6

Resonance #11

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #15125

1 1 1 1 5 5

1 1 1 2 5 5

1 1 3 3 5 5

1 2 3 4 5 6

5 5 5 5 1 1

5 5 5 6 1 2

has #5 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #3

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #4

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #5

S0: 1 2 3 4 5

```

S1: 1 2 3 5 6
*****
The semigroup #15127
1 1 1 1 5 5
1 1 1 2 5 5
1 1 3 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15128
1 1 1 1 5 5
1 1 1 2 5 5
1 1 3 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 3
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 3 4 5 6

```

```

S1: 1 2 3 5 6
*****
The semigroup #15160
1 1 1 1 5 5
1 1 2 2 5 5
1 2 3 3 5 5
1 2 3 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #8 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15162
1 1 1 1 5 5
1 1 2 2 5 5
1 2 3 3 5 5
1 2 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 3 4 5 6

```

S1: 1 2 5 6
 Resonance #6
 S0: 1 2 3 4 5
 S1: 1 2 5 6
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #15165

1 1 1 1 5 5
 1 1 2 2 5 5
 1 2 3 3 5 5
 1 2 3 4 5 6
 5 5 5 5 1 1
 5 5 5 6 1 1

has #7 resonances.

Resonance #1
 S0: 1 2 3 4
 S1: 5 6

Resonance #2
 S0: 1 3 4 5
 S1: 1 2 5 6

Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2 5

Resonance #4
 S0: 1 2 3 4 5
 S1: 1 5 6

Resonance #5
 S0: 1 3 4 5 6
 S1: 1 2 5 6

Resonance #6
 S0: 1 2 3 4 5
 S1: 1 2 5 6

Resonance #7
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #15169

1 1 1 1 5 5
 1 1 2 2 5 5
 1 2 3 3 5 6
 1 2 3 3 5 6
 5 5 5 5 1 1
 5 5 6 6 1 1

has #6 resonances.

Resonance #1
 S0: 1 2 3 4
 S1: 5 6

Resonance #2
 S0: 1 3 4 5
 S1: 1 2 5 6

Resonance #3
 S0: 1 3 4 5 6
 S1: 1 2 5

Resonance #4
 S0: 1 2 3 4 5

```

S1: 1 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15170
1 1 1 1 5 5
1 1 2 2 5 5
1 2 3 3 5 6
1 2 3 3 5 6
5 5 5 5 1 1
5 5 6 6 1 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15171
1 1 1 1 5 5
1 1 2 2 5 5
1 2 3 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15172
1 1 1 1 5 5
1 1 2 2 5 5
1 2 3 3 5 6

```

```

1 2 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15176
1 1 1 1 5 5
1 1 2 2 5 5
1 2 3 4 5 5
1 2 4 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #9 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15178
1 1 1 1 5 5
1 1 2 2 5 5
1 2 3 4 5 6
1 2 4 3 5 6
5 5 5 5 1 1
5 5 6 6 1 1

```

```

has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5
S1: 1 2 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15179
1 1 1 1 5 5
1 1 2 2 5 5
1 2 3 4 5 6
1 2 4 3 5 6
5 5 5 5 1 1
5 5 6 6 1 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15180
1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 1 5 5
1 1 1 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #8 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5

```


S1: 1 5 6
 Resonance #3
 S0: 1 2 3 4 5
 S1: 1 4 5 6
 Resonance #4
 S0: 1 2 3 4 5
 S1: 1 3 5 6
 Resonance #5
 S0: 1 2 3 4 5
 S1: 1 2 5 6
 Resonance #6
 S0: 1 2 3 4 5
 S1: 1 3 4 5 6
 Resonance #7
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #8
 S0: 1 2 3 4 5
 S1: 1 2 3 5 6

The semigroup #15182

1 1 1 1 5 5
 1 2 1 1 5 5
 1 1 3 1 5 5
 1 1 1 4 5 6
 5 5 5 5 1 1
 5 5 5 6 1 1

has #5 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #3

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #4

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #5

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #15183

1 1 1 1 5 5
 1 2 1 1 5 5
 1 1 3 1 5 5
 1 1 1 4 5 6
 5 5 5 5 1 1
 5 5 5 6 1 4

has #5 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 2 3 4 5

```

S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #15188

```

1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 3 5 5
1 1 3 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #10 resonances.

```

```

Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #15191

```

1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 3 5 5
1 1 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1

```

```

has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

```

*****
The semigroup #15195
1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 3 5 5
1 1 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1

```

```

has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

```

*****
The semigroup #15201
1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 3 5 6
1 1 3 3 5 6
5 5 5 5 1 1
5 5 6 6 1 1

```

```

has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5

```

```

S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15202
1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 3 5 6
1 1 3 3 5 6
5 5 5 5 1 1
5 5 6 6 1 3
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15204
1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 3 5 6
1 1 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15205
1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 3 5 6
1 1 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4

```

```

S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15211
1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 4 5 5
1 1 4 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #10 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15215
1 1 1 1 5 5
1 2 1 1 5 5
1 1 3 4 5 6
1 1 4 3 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4

```

```

S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15223
1 1 1 1 5 5
1 2 1 1 5 6
1 1 3 3 5 5
1 1 3 3 5 5
5 5 5 5 1 1
5 6 5 5 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15224
1 1 1 1 5 5
1 2 1 1 5 6
1 1 3 3 5 5
1 1 3 3 5 5
5 5 5 5 1 1
5 6 5 5 1 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5

```

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15225
1 1 1 1 5 5
1 2 1 1 5 6
1 1 3 3 5 5
1 1 3 4 5 5
5 5 5 5 1 1
5 6 5 5 1 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15226
1 1 1 1 5 5
1 2 1 1 5 6
1 1 3 3 5 5
1 1 3 4 5 5
5 5 5 5 1 1
5 6 5 5 1 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15229

```

```

1 1 1 1 5 5
1 2 1 1 5 6
1 1 3 4 5 5
1 1 4 3 5 5
5 5 5 5 1 1
5 6 5 5 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15230
1 1 1 1 5 5
1 2 1 1 5 6
1 1 3 4 5 5
1 1 4 3 5 5
5 5 5 5 1 1
5 6 5 5 1 2
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15231

```



```

1 1 1 1 5 5
1 2 1 2 5 5
1 1 3 3 5 5
1 2 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15234
1 1 1 1 5 5
1 2 1 2 5 5
1 1 3 3 5 5
1 2 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15236
1 1 1 1 5 5
1 2 1 2 5 5
1 1 3 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4

```

```

S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15237
1 1 1 1 5 5
1 2 1 2 5 5
1 1 3 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15260
1 1 1 1 5 5
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 2 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #14 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #7
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5

```

```

S1: 1 2 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #15262

```

1 1 1 1 5 5
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1

```

has #8 resonances.

Resonance #1

S0: 1 2 3 4

S1: 5 6

Resonance #2

S0: 1 2 3 5

S1: 1 2 4 5 6

Resonance #3

S0: 1 2 3 4 5

S1: 1 5 6

Resonance #4

S0: 1 2 3 5 6

S1: 1 2 4 5

Resonance #5

S0: 1 2 3 4 5

S1: 1 2 5 6

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 4 5 6

Resonance #7

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #8

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #15264

```

1 1 1 1 5 5
1 2 2 2 5 5
1 2 2 2 5 5

```

```

1 2 2 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #9 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15267
1 1 1 1 5 5
1 2 2 2 5 5
1 2 2 2 5 5
1 2 2 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15279
1 1 1 1 5 5
1 2 2 2 5 5
1 2 2 3 5 5
1 2 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15282
1 1 1 1 5 5
1 2 2 2 5 5
1 2 2 3 5 5
1 2 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 4 5

```

```

S1: 1 2 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15284
1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 2 5 5
1 2 2 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15287
1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 2 5 5
1 2 2 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15296
1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 3 5 5

```

```

1 2 3 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #5 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15299
1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 3 5 5
1 2 3 4 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15303
1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 3 5 5
1 2 3 4 5 6
5 5 5 5 1 1
5 5 5 6 1 1
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5

```

```

S1: 1 2 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15309
1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 3 5 6
1 2 3 3 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15311
1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
*****
The semigroup #15317
1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 4 5 5
1 2 4 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4 5

```



```

S1: 1 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****

```

The semigroup #15324

```

1 1 1 1 5 5
1 2 2 2 5 5
1 2 3 4 5 6
1 2 4 3 5 6
5 5 5 5 1 1
5 5 6 6 1 1
has #4 resonances.

```

```

Resonance #1
S0: 1 2 3 4
S1: 5 6

```

```

Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6

```

```

Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6

```

```

Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5 6

```

The semigroup #15331

```

1 1 1 1 5 5
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 2 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #4 resonances.

```

```

Resonance #1
S0: 1 2 3 4
S1: 5 6

```

```

Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6

```

```

Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6

```

```

Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5 6

```

The semigroup #15332

```

1 1 1 1 5 5
1 2 2 2 5 6
1 2 2 2 5 6

```

```

1 2 2 2 5 6
5 5 5 5 1 1
5 6 6 6 1 2
has #4 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15333
1 1 1 1 5 5
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 3 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15334
1 1 1 1 5 5
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 3 5 6
5 5 5 5 1 1
5 6 6 6 1 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15335
1 1 1 1 5 5
1 2 2 2 5 6
1 2 2 2 5 6

```

```

1 2 2 4 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15336
1 1 1 1 5 5
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 4 5 6
5 5 5 5 1 1
5 6 6 6 1 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15341
1 1 1 1 5 5
1 2 2 2 5 6
1 2 2 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15342
1 1 1 1 5 5
1 2 2 2 5 6
1 2 2 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 6 6 6 1 2

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15343
1 1 1 1 5 5
1 2 2 2 5 6
1 2 3 2 5 6
1 2 2 4 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15344
1 1 1 1 5 5
1 2 2 2 5 6
1 2 3 2 5 6
1 2 2 4 5 6
5 5 5 5 1 1
5 6 6 6 1 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15348
1 1 1 1 5 5
1 2 2 2 5 6
1 2 3 3 5 6
1 2 3 3 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15349

```

```

1 1 1 1 5 5
1 2 2 2 5 6
1 2 3 3 5 6
1 2 3 3 5 6
5 5 5 5 1 1
5 6 6 6 1 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15350
1 1 1 1 5 5
1 2 2 2 5 6
1 2 3 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15351
1 1 1 1 5 5
1 2 2 2 5 6
1 2 3 3 5 6
1 2 3 4 5 6
5 5 5 5 1 1
5 6 6 6 1 2
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15354
1 1 1 1 5 5
1 2 2 2 5 6
1 2 3 4 5 6
1 2 4 3 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5

```

```

S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15355
1 1 1 1 5 5
1 2 2 2 5 6
1 2 3 4 5 6
1 2 4 3 5 6
5 5 5 5 1 1
5 6 6 6 1 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15361
1 1 1 1 5 5
1 2 2 4 5 5
1 2 2 4 5 5
1 4 4 2 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15363
1 1 1 1 5 5
1 2 2 4 5 5
1 2 3 4 5 5

```

```

1 4 4 2 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

The semigroup #15366

```

1 1 1 1 5 5
1 2 2 4 5 5
1 2 3 4 5 6
1 4 4 2 5 5
5 5 5 5 1 1
5 5 6 5 1 1
has #6 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6

```

```

Resonance #2
S0: 1 2 3 5
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

The semigroup #15368

```

1 1 1 1 5 5
1 2 2 4 5 6
1 2 2 4 5 6
1 4 4 2 5 6
5 5 5 5 1 1
5 6 6 6 1 1

```

```

has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5 6
*****
The semigroup #15371
1 1 1 1 5 5
1 2 2 4 5 6
1 2 3 4 5 6
1 4 4 2 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5 6
*****
The semigroup #15376
1 1 1 1 5 5
1 2 3 3 5 5
1 3 2 2 5 5
1 3 2 2 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #7 resonances.
Resonance #1
S0: 1 2 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 5 6
Resonance #3
S0: 1 2 5 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5

```



```

S1: 1 2 3 5 6
*****
The semigroup #15378
1 1 1 1 5 5
1 2 3 3 5 6
1 3 2 2 5 6
1 3 2 2 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15379
1 1 1 1 5 5
1 2 3 4 5 5
1 3 4 2 5 5
1 4 2 3 5 5
5 5 5 5 1 1
5 5 5 5 1 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15384
1 1 1 1 5 5
1 2 3 4 5 6
1 3 4 2 5 6
1 4 2 3 5 6
5 5 5 5 1 1
5 6 6 6 1 1
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 5 6
*****
The semigroup #15388
1 1 1 1 5 6
1 1 1 1 5 6
1 1 1 1 5 6
1 1 1 1 5 6
5 5 5 5 6 1
6 6 6 6 1 5

```

has #12 resonances.

Resonance #1

S0: 1 4 5 6

S1: 1 2 3 5 6

Resonance #2

S0: 1 3 5 6

S1: 1 2 4 5 6

Resonance #3

S0: 1 2 5 6

S1: 1 3 4 5 6

Resonance #4

S0: 1 3 4 5 6

S1: 1 2 5 6

Resonance #5

S0: 1 2 4 5 6

S1: 1 3 5 6

Resonance #6

S0: 1 2 3 5 6

S1: 1 4 5 6

Resonance #7

S0: 1 3 4 5 6

S1: 1 2 4 5 6

Resonance #8

S0: 1 3 4 5 6

S1: 1 2 3 5 6

Resonance #9

S0: 1 2 4 5 6

S1: 1 3 4 5 6

Resonance #10

S0: 1 2 4 5 6

S1: 1 2 3 5 6

Resonance #11

S0: 1 2 3 5 6

S1: 1 3 4 5 6

Resonance #12

S0: 1 2 3 5 6

S1: 1 2 4 5 6

The semigroup #15389

1 1 1 1 5 6

1 1 1 1 5 6

1 1 1 1 5 6

1 1 1 2 5 6

5 5 5 5 6 1

6 6 6 6 1 5

has #6 resonances.

Resonance #1

S0: 1 2 5 6

S1: 1 3 4 5 6

Resonance #2

S0: 1 2 4 5 6

S1: 1 3 5 6

Resonance #3

S0: 1 2 3 5 6

S1: 1 4 5 6

Resonance #4

S0: 1 2 4 5 6

S1: 1 2 3 5 6
 Resonance #5
 S0: 1 2 3 5 6
 S1: 1 3 4 5 6
 Resonance #6
 S0: 1 2 3 5 6
 S1: 1 2 4 5 6

The semigroup #15390

1 1 1 1 5 6
 1 1 1 1 5 6
 1 1 1 1 5 6
 1 1 1 4 5 6
 5 5 5 5 6 1
 6 6 6 6 1 5

has #7 resonances.

Resonance #1
 S0: 1 4 5 6
 S1: 1 2 3 5 6
 Resonance #2
 S0: 1 3 4 5 6
 S1: 1 2 5 6
 Resonance #3
 S0: 1 2 4 5 6
 S1: 1 3 5 6
 Resonance #4
 S0: 1 3 4 5 6
 S1: 1 2 4 5 6
 Resonance #5
 S0: 1 3 4 5 6
 S1: 1 2 3 5 6
 Resonance #6
 S0: 1 2 4 5 6
 S1: 1 3 4 5 6
 Resonance #7
 S0: 1 2 4 5 6
 S1: 1 2 3 5 6

The semigroup #15396

1 1 1 1 5 6
 1 1 1 1 5 6
 1 1 1 2 5 6
 1 1 2 1 5 6
 5 5 5 5 6 1
 6 6 6 6 1 5

has #5 resonances.

Resonance #1
 S0: 1 4 5 6
 S1: 1 2 3 5 6
 Resonance #2
 S0: 1 3 5 6
 S1: 1 2 4 5 6
 Resonance #3
 S0: 1 2 5 6
 S1: 1 3 4 5 6
 Resonance #4
 S0: 1 2 4 5 6

```

S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15397
1 1 1 1 5 6
1 1 1 1 5 6
1 1 1 2 5 6
1 1 2 2 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #3 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15398
1 1 1 1 5 6
1 1 1 1 5 6
1 1 1 2 5 6
1 1 2 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15399
1 1 1 1 5 6
1 1 1 1 5 6
1 1 1 3 5 6
1 1 3 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #4
S0: 1 3 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15402
1 1 1 1 5 6
1 1 1 1 5 6
1 1 2 1 5 6
1 1 1 2 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #5 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15403
1 1 1 1 5 6
1 1 1 1 5 6
1 1 2 1 5 6
1 1 1 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #3 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15405
1 1 1 1 5 6
1 1 1 1 5 6
1 1 2 2 5 6
1 1 2 2 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #3 resonances.
Resonance #1
S0: 1 2 5 6

```

```

S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15406
1 1 1 1 5 6
1 1 1 1 5 6
1 1 3 1 5 6
1 1 1 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15408
1 1 1 1 5 6
1 1 1 1 5 6
1 1 3 3 5 6
1 1 3 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #3 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15409
1 1 1 1 5 6
1 1 1 1 5 6
1 1 3 3 5 6
1 1 3 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6

```

```

S1: 1 2 3 5 6
*****
The semigroup #15412
1 1 1 1 5 6
1 1 1 1 5 6
1 1 3 4 5 6
1 1 4 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #4 resonances.
Resonance #1
S0: 1 3 5 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15418
1 1 1 1 5 6
1 1 1 2 5 6
1 1 1 2 5 6
1 2 2 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15420
1 1 1 1 5 6
1 1 1 2 5 6
1 1 1 3 5 6
1 2 3 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #5 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #4
S0: 1 3 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15421
1 1 1 1 5 6
1 1 1 2 5 6
1 1 2 3 5 6
1 2 3 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 3 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15422
1 1 1 1 5 6
1 1 1 2 5 6
1 1 3 1 5 6
1 2 1 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15423
1 1 1 1 5 6
1 1 1 2 5 6
1 1 3 3 5 6
1 2 3 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15427
1 1 1 1 5 6
1 1 2 2 5 6
1 2 3 3 5 6
1 2 3 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5

```



```

has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2 5 6
*****
The semigroup #15428
1 1 1 1 5 6
1 1 2 2 5 6
1 2 3 3 5 6
1 2 3 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2 5 6
*****
The semigroup #15430
1 1 1 1 5 6
1 1 2 2 5 6
1 2 3 4 5 6
1 2 4 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 3 4 5 6
S1: 1 2 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15432
1 1 1 1 5 6
1 2 1 1 5 6
1 1 3 3 5 6
1 1 3 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15435
1 1 1 1 5 6
1 2 1 1 5 6
1 1 3 4 5 6
1 1 4 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 5 6

```

```

S1: 1 2 4 5 6
*****
The semigroup #15437
1 1 1 1 5 6
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 2 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #2 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15438
1 1 1 1 5 6
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15439
1 1 1 1 5 6
1 2 2 2 5 6
1 2 2 2 5 6
1 2 2 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15442
1 1 1 1 5 6
1 2 2 2 5 6
1 2 2 3 5 6
1 2 3 4 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 2 4 5 6
S1: 1 2 3 5 6
*****
The semigroup #15448
1 1 1 1 5 6
1 2 2 2 5 6
1 2 3 4 5 6

```

```

1 2 4 3 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****

The semigroup #15451
1 1 1 1 5 6
1 2 2 4 5 6
1 2 2 4 5 6
1 4 4 2 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 4 5 6
*****

The semigroup #15452
1 1 1 1 5 6
1 2 2 4 5 6
1 2 3 4 5 6
1 4 4 2 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 2 3 5 6
S1: 1 4 5 6
*****

The semigroup #15453
1 1 1 1 5 6
1 2 3 3 5 6
1 3 2 2 5 6
1 3 2 2 5 6
5 5 5 5 6 1
6 6 6 6 1 5
has #1 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 3 4 5 6
*****

The semigroup #15455
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 1
has #51 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 4 6

```

S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #6
S0: 1 4 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #12
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #19
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 4 5

S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #25
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #32
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #33
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #40
S0: 1 3 4 5 6

```

S1: 1 2 4 5 6
Resonance #41
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #44
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #15456

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 2

```

has #27 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4

```

S1: 1 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #24
S0: 1 2 3 4 6

S1: 1 2 3 4 5
 Resonance #25
 S0: 1 2 3 4 5
 S1: 1 3 4 5 6
 Resonance #26
 S0: 1 2 3 4 5
 S1: 1 2 4 5 6
 Resonance #27
 S0: 1 2 3 4 5
 S1: 1 2 3 4 6

The semigroup #15463

1 1 1 4 4 4
 1 1 1 4 4 4
 1 1 1 4 4 4
 4 4 4 1 1 1
 4 4 4 1 1 2
 4 4 4 1 2 1

has #23 resonances.

Resonance #1
 S0: 1 2 3
 S1: 4 5 6
 Resonance #2
 S0: 1 4 6
 S1: 1 2 3 4 5
 Resonance #3
 S0: 1 4 5
 S1: 1 2 3 4 6
 Resonance #4
 S0: 1 2 4
 S1: 1 3 4 5 6
 Resonance #5
 S0: 1 3 4 6
 S1: 1 2 4 5
 Resonance #6
 S0: 1 3 4 5
 S1: 1 2 4 6
 Resonance #7
 S0: 1 2 3 4
 S1: 1 4 5 6
 Resonance #8
 S0: 1 3 4 6
 S1: 1 2 3 4 5
 Resonance #9
 S0: 1 2 4 6
 S1: 1 2 3 4 5
 Resonance #10
 S0: 1 3 4 5
 S1: 1 2 3 4 6
 Resonance #11
 S0: 1 2 4 5
 S1: 1 2 3 4 6
 Resonance #12
 S0: 1 2 3 4
 S1: 1 3 4 5 6
 Resonance #13
 S0: 1 2 3 4


```

S1: 1 2 4 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15464
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 1 2
4 4 4 1 2 2
has #17 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4

```

```

S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #15465

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 1 2
4 4 4 1 2 3

```

has #13 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15468
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 2 1
4 4 4 1 1 2
has #23 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4

```

```

S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15469
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 2 1
4 4 4 1 1 3
has #14 resonances.
Resonance #1
S0: 1 2 3

```

```

S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15473
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 2 2
4 4 4 1 2 2
has #17 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4

```

```

S1: 1 4 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15474
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 2 2
4 4 4 1 2 3
has #9 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4

```

```

S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

```

*****

```

The semigroup #15477

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 4
4 4 4 1 1 1
4 4 4 1 2 3
4 4 4 1 3 2

```

has #12 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 6

```

```

S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15478
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 5
4 4 4 1 1 1
4 4 4 1 1 1
4 4 5 1 1 1
has #23 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #8
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 4

```



```

S1: 1 2 4 5 6
Resonance #14
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15479
1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 5
4 4 4 1 1 1
4 4 4 1 1 1
4 4 5 1 1 2
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5

```

```

S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

```

*****

```

The semigroup #15480

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 1 4 4 5
4 4 4 1 1 1
4 4 4 1 1 1
4 4 5 1 1 3

```

has #11 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #9
S0: 1 3 4 5 6

```

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15484
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 1
has #27 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #14
S0: 1 2 4 5 6

```

```

S1: 1 3 4 6
Resonance #15
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #17
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #21
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #22
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #23
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #25
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15485

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 2

```

has #23 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 6

```

S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15490
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 4
4 4 4 1 1 1
4 4 4 1 1 2
4 4 4 1 2 1
has #16 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5

```

```

S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15491
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 4
4 4 4 1 1 1
4 4 4 1 1 2
4 4 4 1 2 2
has #16 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5

```

```

S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15492
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 4
4 4 4 1 1 1
4 4 4 1 2 1
4 4 4 1 1 2
has #20 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #15
S0: 1 2 4 5 6

```



```

S1: 1 2 3 4 6
Resonance #16
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15494

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 4
4 4 4 1 1 1
4 4 4 1 2 2
4 4 4 1 2 2

```

has #16 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #4
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 4 5 6

```

```

S1: 1 2 3 4 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15495

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 5
4 4 4 1 1 1
4 4 4 1 1 1
4 4 5 1 1 1

```

has #13 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 2 4 5 6

```

```

S1: 1 3 4 5 6
Resonance #12
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15496
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 5
4 4 4 1 1 1
4 4 4 1 1 1
4 4 5 1 1 2
has #12 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15497
1 1 1 4 4 4
1 1 1 4 4 4
1 1 2 4 4 5

```

```

4 4 4 1 1 1
4 4 4 1 1 2
4 4 5 1 2 3
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15498
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 1
has #32 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4

```

S1: 1 2 4 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #16
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #17
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #25
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #26
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 5

```

S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15499
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 2
has #16 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 5

```

```

S1: 1 3 4 5 6
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15504
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 2
4 4 4 1 2 1
has #14 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5

```

S1: 1 2 3 4 6

The semigroup #15505

1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 2
4 4 4 1 2 2

has #10 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4

S1: 1 3 4 5 6

Resonance #4

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #5

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #6

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #7

S0: 1 2 3 4 6

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 4 5 6

Resonance #10

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #15506

1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 2 1
4 4 4 1 1 2

has #14 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4


```

S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15509
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 2 2
4 4 4 1 2 2
has #10 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6

```

```

S1: 1 2 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15513

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 4 6 1 1 1

```

has #22 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5

```

```

S1: 1 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15514
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 4 6 1 1 3
has #17 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4

```

```

S1: 1 4 5 6
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #15515

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 6
4 4 4 1 1 1
4 4 4 1 2 1
4 4 6 1 1 1

```

has #11 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6

```

```

S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

The semigroup #15516

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 4 6
4 4 4 1 1 1
4 4 4 1 2 1
4 4 6 1 1 3

```

has #9 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 5

```

```

S1: 1 2 4 5 6
*****
The semigroup #15520
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 5 5
4 4 4 1 1 1
4 4 5 1 1 1
4 4 5 1 1 1
has #12 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15521
1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 5 5
4 4 4 1 1 1
4 4 5 1 1 1
4 4 5 1 1 2
has #6 resonances.
Resonance #1
S0: 1 2 3

```

```

S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #15523

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 5 5
4 4 4 1 1 1
4 4 5 1 3 3
4 4 5 1 3 3
has #7 resonances.

```

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #4
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 5 6

```

The semigroup #15525

```

1 1 1 4 4 4
1 1 1 4 4 4
1 1 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 1
4 4 6 1 1 1
has #20 resonances.

```

```

Resonance #1
S0: 1 2 3

```

S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 5


```

S1: 1 2 4 5 6
*****
The semigroup #15553
1 1 1 4 4 4
1 1 1 4 4 5
1 1 1 4 4 5
4 4 4 1 1 1
4 4 4 1 1 1
4 5 5 1 1 1
has #16 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 4 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 4 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 4 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 5

```

```

S1: 1 2 4 5 6
*****
The semigroup #15554
1 1 1 4 4 4
1 1 1 4 4 5
1 1 1 4 4 5
4 4 4 1 1 1
4 4 4 1 1 1
4 5 5 1 1 2
has #8 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15555
1 1 1 4 4 4
1 1 1 4 4 5
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 5 4 1 1 1
has #14 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15556
1 1 1 4 4 4
1 1 1 4 4 5
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 5 4 1 1 2
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15561

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 1
has #22 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 4 5

```

S1: 1 2 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15566

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 4 6 1 1 1

```

has #20 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5

```

```

S1: 1 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #15567

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 4 6 1 1 2

```

has #10 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5

```

```

S1: 1 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #15572

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 5 5
4 4 4 1 1 1
4 4 5 1 1 1
4 4 5 1 1 1

```

has #10 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #15574

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 5 5
4 4 4 1 1 1
4 4 5 1 2 2
4 4 5 1 2 2

```

```

has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15576
1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 1
4 4 6 1 1 1
has #20 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4
S1: 1 2 4 5 6
Resonance #3
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #4
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #6
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #9
S0: 1 3 4 5 6
S1: 1 2 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #12
S0: 1 3 4 5 6

```



```

S1: 1 2 4 6
Resonance #13
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #15577

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 1
4 4 6 1 1 2

```

has #10 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #8
S0: 1 2 3 4 5

```

```

S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

The semigroup #15581

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 2
4 4 6 1 2 1

```

has #9 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 3 4 6
S1: 1 2 4 5

```

Resonance #3

```

S0: 1 3 4 5
S1: 1 2 4 6

```

Resonance #4

```

S0: 1 2 3 4
S1: 1 4 5 6

```

Resonance #5

```

S0: 1 2 3 4
S1: 1 2 4 5 6

```

Resonance #6

```

S0: 1 2 3 4 6
S1: 1 2 4 5

```

Resonance #7

```

S0: 1 2 3 4 5
S1: 1 2 4 6

```

Resonance #8

```

S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

Resonance #9

```

S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

The semigroup #15582

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 2
4 4 6 1 2 2

```

has #7 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4

```

```

S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #15583

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 2 1
4 4 6 1 1 2

```

has #9 resonances.

```

Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #8
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****

```

The semigroup #15585

```

1 1 1 4 4 4
1 1 2 4 4 4
1 2 3 4 5 6

```

```

4 4 4 1 1 1
4 4 5 1 2 2
4 4 6 1 2 2
has #7 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15586
1 1 1 4 4 4
1 1 2 4 4 5
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 1
4 5 6 1 1 1
has #9 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 3 4 5
S1: 1 2 4 5 6
Resonance #6
S0: 1 3 4 5 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #8
S0: 1 3 4 5 6

```

```

S1: 1 2 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15587
1 1 1 4 4 4
1 1 2 4 4 5
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 1
4 5 6 1 1 2
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15588
1 1 1 4 4 4
1 1 2 4 4 5
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 2
4 5 6 1 2 3
has #5 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5
Resonance #3
S0: 1 3 4 5
S1: 1 2 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15589
1 1 1 4 4 4
1 2 1 4 4 4
1 1 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 1

```

has #18 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4

S1: 1 3 4 5 6

Resonance #4

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #5

S0: 1 2 3 4 6

S1: 1 4 5

Resonance #6

S0: 1 2 3 4 5

S1: 1 4 6

Resonance #7

S0: 1 2 3 4 6

S1: 1 4 5 6

Resonance #8

S0: 1 2 3 4 6

S1: 1 3 4 5

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #10

S0: 1 2 3 4 5

S1: 1 4 5 6

Resonance #11

S0: 1 2 3 4 5

S1: 1 3 4 6

Resonance #12

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #13

S0: 1 2 3 4 6

S1: 1 3 4 5 6

Resonance #14

S0: 1 2 3 4 6

S1: 1 2 4 5 6

Resonance #15

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #16

S0: 1 2 3 4 5

S1: 1 3 4 5 6

Resonance #17

S0: 1 2 3 4 5

S1: 1 2 4 5 6

Resonance #18

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #15594

```

1 1 1 4 4 4
1 2 1 4 4 4
1 1 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 4 6 1 1 1
has #12 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15595
1 1 1 4 4 4
1 2 1 4 4 4
1 1 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 4 6 1 1 3
has #10 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4

```

```

S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15604
1 1 1 4 4 4
1 2 1 4 4 4
1 1 3 4 5 5
4 4 4 1 1 1
4 4 5 1 1 1
4 4 5 1 1 1
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15606
1 1 1 4 4 4
1 2 1 4 4 4
1 1 3 4 5 5

```



```

4 4 4 1 1 1
4 4 5 1 3 3
4 4 5 1 3 3
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15609
1 1 1 4 4 4
1 2 1 4 4 4
1 1 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 1
4 4 6 1 1 1
has #11 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 5

```

S1: 1 2 4 5 6

The semigroup #15617

1 1 1 4 4 4
1 2 1 4 4 6
1 1 3 4 5 4
4 4 4 1 1 1
4 4 5 1 1 1
4 6 4 1 1 1

has #8 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4 6

S1: 1 4 5

Resonance #4

S0: 1 2 3 4 5

S1: 1 4 6

Resonance #5

S0: 1 2 3 4 6

S1: 1 4 5 6

Resonance #6

S0: 1 2 3 4 5

S1: 1 4 5 6

Resonance #7

S0: 1 2 3 4 6

S1: 1 2 4 5 6

Resonance #8

S0: 1 2 3 4 5

S1: 1 3 4 5 6

The semigroup #15618

1 1 1 4 4 4
1 2 1 4 4 6
1 1 3 4 5 4
4 4 4 1 1 1
4 4 5 1 1 1
4 6 4 1 1 2

has #7 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4 6

S1: 1 4 5

Resonance #4

S0: 1 2 3 4 5

S1: 1 4 6

Resonance #5

S0: 1 2 3 4 5

```

S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****

```

The semigroup #15619

```

1 1 1 4 4 4
1 2 1 4 4 6
1 1 3 4 5 4
4 4 4 1 1 1
4 4 5 1 3 1
4 6 4 1 1 2

```

has #6 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 2 3 4 6
S1: 1 4 5

```

Resonance #4

```

S0: 1 2 3 4 5
S1: 1 4 6

```

Resonance #5

```

S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

Resonance #6

```

S0: 1 2 3 4 5
S1: 1 3 4 5 6

```

The semigroup #15625

```

1 1 1 4 4 4
1 2 2 4 4 4
1 2 2 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 1

```

has #18 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 2 4 6
S1: 1 2 3 4 5

```

Resonance #4

```

S0: 1 2 4 5
S1: 1 2 3 4 6

```

Resonance #5

```

S0: 1 2 3 4

```

```

S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #7
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #13
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #14
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #18
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15630

```

1 1 1 4 4 4
1 2 2 4 4 4
1 2 2 4 4 5
4 4 4 1 1 1
4 4 4 1 1 1
4 4 5 1 1 1

```

has #8 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 4 6

```

S1: 1 2 3 4 5
Resonance #4
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15632
1 1 1 4 4 4
1 2 2 4 4 4
1 2 3 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 1
has #13 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #11
S0: 1 2 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #15641

```

1 1 1 4 4 4
1 2 2 4 4 4
1 2 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 4 6 1 1 1

```

has #11 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 2 3 4
S1: 1 2 4 5 6

```

Resonance #4

```

S0: 1 2 3 4 6
S1: 1 4 5

```

Resonance #5

```

S0: 1 2 3 4 5
S1: 1 4 6

```

Resonance #6

```

S0: 1 2 3 4 6
S1: 1 4 5 6

```

Resonance #7

```

S0: 1 2 3 4 6
S1: 1 2 4 5

```

Resonance #8

```

S0: 1 2 3 4 5
S1: 1 4 5 6

```

Resonance #9

```

S0: 1 2 3 4 5
S1: 1 2 4 6

```

Resonance #10

```

S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

Resonance #11

```

S0: 1 2 3 4 5
S1: 1 2 4 5 6

```

The semigroup #15649

```

1 1 1 4 4 4
1 2 2 4 4 4
1 2 3 4 5 5
4 4 4 1 1 1
4 4 5 1 1 1
4 4 5 1 1 1

```

has #5 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #4

S0: 1 2 3 4 5

S1: 1 4 5 6

Resonance #5

S0: 1 2 3 4 5

S1: 1 2 4 5 6

The semigroup #15655

1 1 1 4 4 4

1 2 2 4 4 4

1 2 3 4 5 6

4 4 4 1 1 1

4 4 5 1 1 1

4 4 6 1 1 1

has #11 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4

S1: 1 2 4 5 6

Resonance #4

S0: 1 2 3 4 6

S1: 1 4 5

Resonance #5

S0: 1 2 3 4 5

S1: 1 4 6

Resonance #6

S0: 1 2 3 4 6

S1: 1 4 5 6

Resonance #7

S0: 1 2 3 4 6

S1: 1 2 4 5

Resonance #8

S0: 1 2 3 4 5

S1: 1 4 5 6

Resonance #9

S0: 1 2 3 4 5

S1: 1 2 4 6

Resonance #10

S0: 1 2 3 4 6

S1: 1 2 4 5 6

Resonance #11

S0: 1 2 3 4 5

S1: 1 2 4 5 6

The semigroup #15665

1 1 1 4 4 4
1 2 2 4 4 6
1 2 2 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 6 6 1 1 1

has #8 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4 6

S1: 1 4 5

Resonance #4

S0: 1 2 3 4 5

S1: 1 4 6

Resonance #5

S0: 1 2 3 4 6

S1: 1 4 5 6

Resonance #6

S0: 1 2 3 4 5

S1: 1 4 5 6

Resonance #7

S0: 1 2 4 5 6

S1: 1 2 3 4 6

Resonance #8

S0: 1 2 3 4 6

S1: 1 2 4 5 6

The semigroup #15666

1 1 1 4 4 4
1 2 2 4 4 6
1 2 2 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 6 6 1 1 2

has #7 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #3

S0: 1 2 3 4 6

S1: 1 4 5

Resonance #4

S0: 1 2 3 4 5

S1: 1 4 6

Resonance #5

S0: 1 2 3 4 5


```

S1: 1 4 5 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****

```

The semigroup #15669

```

1 1 1 4 4 4
1 2 2 4 4 6
1 2 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 6 6 1 1 1

```

has #7 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 2 3 4 6
S1: 1 4 5

```

Resonance #4

```

S0: 1 2 3 4 5
S1: 1 4 6

```

Resonance #5

```

S0: 1 2 3 4 6
S1: 1 4 5 6

```

Resonance #6

```

S0: 1 2 3 4 5
S1: 1 4 5 6

```

Resonance #7

```

S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

The semigroup #15670

```

1 1 1 4 4 4
1 2 2 4 4 6
1 2 3 4 4 6
4 4 4 1 1 1
4 4 4 1 1 1
4 6 6 1 1 2

```

has #6 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 2 3 4 6
S1: 1 4 5

```

Resonance #4

```

S0: 1 2 3 4 5

```

```

S1: 1 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****

```

The semigroup #15676

```

1 1 1 4 4 4
1 2 2 4 4 6
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 1
4 6 6 1 1 1

```

has #7 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 2 3 4 6
S1: 1 4 5

```

Resonance #4

```

S0: 1 2 3 4 5
S1: 1 4 6

```

Resonance #5

```

S0: 1 2 3 4 6
S1: 1 4 5 6

```

Resonance #6

```

S0: 1 2 3 4 5
S1: 1 4 5 6

```

Resonance #7

```

S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

The semigroup #15677

```

1 1 1 4 4 4
1 2 2 4 4 6
1 2 3 4 5 6
4 4 4 1 1 1
4 4 5 1 1 1
4 6 6 1 1 2

```

has #6 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4
S1: 1 4 5 6

```

Resonance #3

```

S0: 1 2 3 4 6
S1: 1 4 5

```

Resonance #4

```

S0: 1 2 3 4 5

```

```

S1: 1 4 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15684
1 1 1 4 4 4
1 2 2 4 5 5
1 2 2 4 5 5
4 4 4 1 1 1
4 5 5 1 1 1
4 5 5 1 1 1
has #5 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15686
1 1 1 4 4 4
1 2 2 4 5 5
1 2 2 4 5 5
4 4 4 1 1 1
4 5 5 1 2 2
4 5 5 1 2 2
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15687
1 1 1 4 4 4
1 2 2 4 5 5
1 2 2 4 5 5

```

```

4 4 4 1 1 1
4 5 5 1 2 2
4 5 5 1 2 3
has #3 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15688
1 1 1 4 4 4
1 2 2 4 5 5
1 2 3 4 5 5
4 4 4 1 1 1
4 5 5 1 1 1
4 5 5 1 1 1
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15691
1 1 1 4 4 4
1 2 2 4 5 5
1 2 3 4 5 5
4 4 4 1 1 1
4 5 5 1 2 2
4 5 5 1 2 2
has #3 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15693
1 1 1 4 4 4
1 2 2 4 5 5
1 2 3 4 5 6

```

```

4 4 4 1 1 1
4 5 5 1 1 1
4 5 6 1 1 1
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15695
1 1 1 4 4 4
1 2 2 4 5 5
1 2 3 4 5 6
4 4 4 1 1 1
4 5 5 1 2 2
4 5 6 1 2 2
has #3 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15696
1 1 1 4 4 4
1 2 2 4 5 5
1 2 3 4 5 6
4 4 4 1 1 1
4 5 5 1 2 2
4 5 6 1 2 3
has #3 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 4 5 6
*****
The semigroup #15703
1 1 1 4 4 4
1 2 2 4 5 6
1 2 2 4 5 6

```

```

4 4 4 1 1 1
4 5 5 1 1 1
4 6 6 1 1 1
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 4 5 6
*****
The semigroup #15704
1 1 1 4 4 4
1 2 2 4 5 6
1 2 3 4 5 6
4 4 4 1 1 1
4 5 5 1 1 1
4 6 6 1 1 1
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 4 5 6
*****
The semigroup #15710
1 1 1 4 4 4
1 2 3 4 4 4
1 3 2 4 4 4
4 4 4 1 1 1
4 4 4 1 1 1
4 4 4 1 1 1

```

has #17 resonances.

Resonance #1

S0: 1 2 3

S1: 4 5 6

Resonance #2

S0: 1 2 4

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 4 6

S1: 1 3 4 5

Resonance #4

S0: 1 2 4 5

S1: 1 3 4 6

Resonance #5

S0: 1 2 3 4

S1: 1 4 5 6

Resonance #6

S0: 1 2 4 6

S1: 1 3 4 5 6

Resonance #7

S0: 1 2 4 5

S1: 1 3 4 5 6

Resonance #8

S0: 1 2 4 5 6

S1: 1 3 4

Resonance #9

S0: 1 2 3 4 6

S1: 1 4 5

Resonance #10

S0: 1 2 3 4 5

S1: 1 4 6

Resonance #11

S0: 1 2 4 5 6

S1: 1 3 4 6

Resonance #12

S0: 1 2 4 5 6

S1: 1 3 4 5

Resonance #13

S0: 1 2 3 4 6

S1: 1 4 5 6

Resonance #14

S0: 1 2 3 4 5

S1: 1 4 5 6

Resonance #15

S0: 1 2 4 5 6

S1: 1 3 4 5 6

Resonance #16

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #17

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #15715

1 1 1 4 4 4

1 2 3 4 4 6

1 3 2 4 4 6

```

4 4 4 1 1 1
4 4 4 1 1 1
4 6 6 1 1 1
has #9 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #6
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #8
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15720
1 1 1 4 4 4
1 2 3 4 5 5
1 3 2 4 5 5
4 4 4 1 1 1
4 5 5 1 1 1
4 5 5 1 1 1
has #6 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #6
S0: 1 2 4 5 6

```



```

S1: 1 3 4 5 6
*****
The semigroup #15722
1 1 1 4 4 4
1 2 3 4 5 6
1 3 2 4 5 6
4 4 4 1 1 1
4 5 5 1 1 1
4 6 6 1 1 1
has #7 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 4 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15724
1 1 1 4 4 4
1 2 3 4 5 6
1 3 2 4 6 5
4 4 4 1 1 1
4 5 6 1 1 1
4 6 5 1 1 1
has #5 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15725

```

```

1 1 1 4 4 4
1 2 3 4 5 6
1 3 2 4 6 5
4 4 4 1 1 1
4 5 6 1 2 3
4 6 5 1 3 2
has #4 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 4 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 4 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 4
S1: 1 4 5 6
*****
The semigroup #15726
1 1 1 4 4 4
1 2 3 4 5 6
1 3 2 4 6 5
4 4 4 1 1 1
4 5 6 1 3 2
4 6 5 1 2 3
has #2 resonances.
Resonance #1
S0: 1 2 3
S1: 4 5 6
Resonance #2
S0: 1 2 3 4
S1: 1 4 5 6
*****
The semigroup #15734
1 1 1 4 4 6
1 1 1 4 4 6
1 1 1 4 4 6
4 4 4 6 6 1
4 4 4 6 6 1
6 6 6 1 1 4
has #12 resonances.
Resonance #1
S0: 1 4 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #5
S0: 1 2 4 5 6

```

```

S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

```

*****

```

The semigroup #15735

```

1 1 1 4 4 6
1 1 1 4 4 6
1 1 2 4 4 6
4 4 4 6 6 1
4 4 4 6 6 1
6 6 6 1 1 4

```

has #6 resonances.

```

Resonance #1
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

```

*****

```

The semigroup #15736

```

1 1 1 4 4 6
1 1 1 4 4 6
1 1 3 4 4 6
4 4 4 6 6 1
4 4 4 6 6 1
6 6 6 1 1 4

```

```

has #7 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

```

*****
The semigroup #15738
1 1 1 4 4 6
1 1 1 4 4 6
1 1 3 4 5 6
4 4 4 6 6 1
4 4 5 6 6 1
6 6 6 1 1 4

```

```

has #5 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

```

*****
The semigroup #15743
1 1 1 4 4 6
1 1 2 4 4 6
1 2 3 4 4 6
4 4 4 6 6 1
4 4 4 6 6 1
6 6 6 1 1 4

```

```

has #5 resonances.
Resonance #1
S0: 1 3 4 6

```

```

S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15745
1 1 1 4 4 6
1 1 2 4 4 6
1 2 3 4 5 6
4 4 4 6 6 1
4 4 5 6 6 1
6 6 6 1 1 4
has #5 resonances.
Resonance #1
S0: 1 3 4 6
S1: 1 2 4 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15746
1 1 1 4 4 6
1 2 1 4 4 6
1 1 3 4 4 6
4 4 4 6 6 1
4 4 4 6 6 1
6 6 6 1 1 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15748

```

```

1 1 1 4 4 6
1 2 1 4 4 6
1 1 3 4 5 6
4 4 4 6 6 1
4 4 5 6 6 1
6 6 6 1 1 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15750
1 1 1 4 4 6
1 2 2 4 4 6
1 2 2 4 4 6
4 4 4 6 6 1
4 4 4 6 6 1
6 6 6 1 1 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15752
1 1 1 4 4 6
1 2 2 4 4 6
1 2 3 4 4 6
4 4 4 6 6 1
4 4 4 6 6 1
6 6 6 1 1 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15755
1 1 1 4 4 6
1 2 2 4 4 6
1 2 3 4 5 6
4 4 4 6 6 1
4 4 5 6 6 1
6 6 6 1 1 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4 6

```

```

S1: 1 4 5 6
Resonance #2
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15759
1 1 1 4 4 6
1 2 2 4 5 6
1 2 2 4 5 6
4 4 4 6 6 1
4 5 5 6 6 1
6 6 6 1 1 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5 6
*****
The semigroup #15760
1 1 1 4 4 6
1 2 2 4 5 6
1 2 3 4 5 6
4 4 4 6 6 1
4 5 5 6 6 1
6 6 6 1 1 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5 6
*****
The semigroup #15763
1 1 1 4 4 6
1 2 3 4 4 6
1 3 2 4 4 6
4 4 4 6 6 1
4 4 4 6 6 1
6 6 6 1 1 4
has #4 resonances.
Resonance #1
S0: 1 2 4 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15765
1 1 1 4 4 6
1 2 3 4 5 6
1 3 2 4 5 6
4 4 4 6 6 1
4 5 5 6 6 1
6 6 6 1 1 4

```

```

has #2 resonances.
Resonance #1
S0: 1 2 3 4 6
S1: 1 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15766
1 1 1 4 5 6
1 1 1 4 5 6
1 1 1 4 5 6
4 4 4 1 6 5
5 5 5 6 1 4
6 6 6 5 4 1
has #5 resonances.
Resonance #1
S0: 1 2 3 6
S1: 4 5
Resonance #2
S0: 1 2 3 5
S1: 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #5
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15767
1 1 1 4 5 6
1 1 1 4 5 6
1 1 1 4 5 6
4 4 4 1 6 5
5 5 5 6 4 1
6 6 6 5 1 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4 5 6
Resonance #3
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15768
1 1 1 4 5 6
1 1 1 4 5 6
1 1 2 4 5 6
4 4 4 1 6 5
5 5 5 6 1 4
6 6 6 5 4 1

```



```

has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 4 5
Resonance #2
S0: 1 2 3 5
S1: 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15769
1 1 1 4 5 6
1 1 1 4 5 6
1 1 2 4 5 6
4 4 4 1 6 5
5 5 5 6 4 1
6 6 6 5 1 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15770
1 1 1 4 5 6
1 1 1 4 5 6
1 1 3 4 5 6
4 4 4 1 6 5
5 5 5 6 1 4
6 6 6 5 4 1
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 4 5
Resonance #2
S0: 1 2 3 5
S1: 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5 6
*****
The semigroup #15771
1 1 1 4 5 6
1 1 1 4 5 6
1 1 3 4 5 6
4 4 4 1 6 5
5 5 5 6 4 1
6 6 6 5 1 4

```

```

has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4 5 6
*****
The semigroup #15774
1 1 1 4 5 6
1 1 2 4 5 6
1 2 3 4 5 6
4 4 4 1 6 5
5 5 5 6 1 4
6 6 6 5 4 1
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 4 5
Resonance #2
S0: 1 2 3 5
S1: 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 4 5 6
*****
The semigroup #15775
1 1 1 4 5 6
1 1 2 4 5 6
1 2 3 4 5 6
4 4 4 1 6 5
5 5 5 6 4 1
6 6 6 5 1 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 4 5 6
*****
The semigroup #15776
1 1 1 4 5 6
1 2 1 4 5 6
1 1 3 4 5 6
4 4 4 1 6 5
5 5 5 6 1 4
6 6 6 5 4 1
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 4 5
Resonance #2
S0: 1 2 3 5

```

```

S1: 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
*****
The semigroup #15777
1 1 1 4 5 6
1 2 1 4 5 6
1 1 3 4 5 6
4 4 4 1 6 5
5 5 5 6 4 1
6 6 6 5 1 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
*****
The semigroup #15778
1 1 1 4 5 6
1 2 2 4 5 6
1 2 2 4 5 6
4 4 4 1 6 5
5 5 5 6 1 4
6 6 6 5 4 1
has #3 resonances.
Resonance #1
S0: 1 2 3 6
S1: 4 5
Resonance #2
S0: 1 2 3 5
S1: 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
*****
The semigroup #15779
1 1 1 4 5 6
1 2 2 4 5 6
1 2 2 4 5 6
4 4 4 1 6 5
5 5 5 6 4 1
6 6 6 5 1 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
*****
The semigroup #15780
1 1 1 4 5 6
1 2 2 4 5 6
1 2 3 4 5 6
4 4 4 1 6 5
5 5 5 6 1 4
6 6 6 5 4 1
has #3 resonances.
Resonance #1
S0: 1 2 3 6

```

```

S1: 4 5
Resonance #2
S0: 1 2 3 5
S1: 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
*****
The semigroup #15781
1 1 1 4 5 6
1 2 2 4 5 6
1 2 3 4 5 6
4 4 4 1 6 5
5 5 5 6 4 1
6 6 6 5 1 4
has #1 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
*****
The semigroup #15784
1 1 1 4 5 6
1 2 3 4 5 6
1 3 2 4 5 6
4 4 4 1 6 5
5 5 5 6 1 4
6 6 6 5 4 1
has #4 resonances.
Resonance #1
S0: 1 2 3 6
S1: 4 5
Resonance #2
S0: 1 2 3 5
S1: 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15785
1 1 1 4 5 6
1 2 3 4 5 6
1 3 2 4 5 6
4 4 4 1 6 5
5 5 5 6 4 1
6 6 6 5 1 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 3 4 5 6
*****
The semigroup #15786

```

1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
has #51 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #6
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #9
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #12
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #17
S0: 1 2 3 6

S1: 1 2 3 4 5
Resonance #18
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 3 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #26
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #28
S0: 1 3 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #36
S0: 1 2 3 4 6

```

S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #15787

```

1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 2

```

has #27 resonances.

```

Resonance #1
S0: 1 2

```

S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #18
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #19
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #20
S0: 1 2 3 4 5


```

S1: 1 2 3 6
Resonance #21
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #23
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #25
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #26
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #15793

```

1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 2
3 3 1 1 2 1

```

has #23 resonances.

```

Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 3 4 6
S1: 1 2 3 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #8
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #10
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15794
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 2
3 3 1 1 2 2
has #17 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3

```

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #15799

```

1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 2 1
3 3 1 1 1 2

```

has #23 resonances.

```

Resonance #1
S0: 1 2

```

S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #12
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6

```

S1: 1 2 3 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15805

```

1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 2 2
3 3 1 1 2 2

```

has #17 resonances.

```

Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15819
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 2
3 3 1 1 1 2
3 3 1 2 2 1
has #16 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #4
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15820
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 2
3 3 1 1 1 2
3 3 1 2 2 2
has #14 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15821
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 2
3 3 1 1 2 1
3 3 1 2 1 1
has #16 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6

```



```

S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15822
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 2
3 3 1 1 2 1
3 3 1 2 1 2
has #16 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6

```

```

S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15825
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 2
3 3 1 1 2 2
3 3 1 2 2 1
has #14 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #15826
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 2
3 3 1 1 2 2
3 3 1 2 2 2
has #14 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15844
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1

```

```

3 3 1 1 2 2
3 3 1 2 1 2
3 3 1 2 2 1
has #14 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15845
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 2 2
3 3 1 2 1 2
3 3 1 2 2 2
has #14 resonances.
Resonance #1
S0: 1 2

```

```

S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15846
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 2 2
3 3 1 2 2 1
3 3 1 2 1 2
has #14 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15848
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 1 2 2
3 3 1 2 2 2
3 3 1 2 2 2
has #14 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15849

```

1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 2 1 1
3 3 1 1 2 1
3 3 1 1 1 2

```

has #20 resonances.

```

Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #7
S0: 1 2 3 5

```

```

S1: 1 2 3 4 6
Resonance #8
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #17
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #18
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #19
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15852

```

1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 2 1 1
3 3 1 1 2 2
3 3 1 1 2 2

```

has #16 resonances.

```

Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4

```



```

S1: 1 3 5 6
Resonance #4
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #8
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15857
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 2 1 2
3 3 1 1 2 2
3 3 1 2 2 2
has #14 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6

```

```

S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15861
1 1 3 3 3 3
1 1 3 3 3 3
3 3 1 1 1 1
3 3 1 2 2 2
3 3 1 2 2 2
3 3 1 2 2 2
has #14 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4

```

```

S1: 1 2 3 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****

```

The semigroup #15862

```

1 1 3 3 3 3
1 1 3 3 3 4
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
3 4 1 1 1 1

```

has #23 resonances.

```

Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 3 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 3 4
S1: 1 2 3 5 6
Resonance #4
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #5
S0: 1 3 5 6
S1: 1 2 3 4
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 6
Resonance #7
S0: 1 2 3 5

```

```

S1: 1 3 4 6
Resonance #8
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 3 4 6
S1: 1 2 3 4 5
Resonance #10
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #11
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #12
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #13
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #15
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #16
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #18
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #19
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15863
1 1 3 3 3 3
1 1 3 3 3 4
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
3 4 1 1 1 2

```

has #11 resonances.

Resonance #1

S0: 1 2

S1: 3 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 3 5

S1: 1 3 4 6

Resonance #4

S0: 1 2 3 5

S1: 1 3 4 5 6

Resonance #5

S0: 1 2 3 4

S1: 1 3 4 5 6

Resonance #6

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #7

S0: 1 2 3 4 6

S1: 1 3 4 5

Resonance #8

S0: 1 2 3 4 5

S1: 1 3 4 6

Resonance #9

S0: 1 2 3 4 6

S1: 1 2 3 4 5

Resonance #10

S0: 1 2 3 4 5

S1: 1 3 4 5 6

Resonance #11

S0: 1 2 3 4 5

S1: 1 2 3 4 6

The semigroup #15867

1 1 3 3 3 3

1 1 3 3 4 4

3 3 1 1 1 1

3 3 1 1 1 1

3 4 1 1 1 1

3 4 1 1 1 1

has #16 resonances.

Resonance #1

S0: 1 2

S1: 3 4 5 6

Resonance #2

S0: 1 3 4

S1: 1 2 3 5 6

Resonance #3

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #4

S0: 1 3 5 6

S1: 1 2 3 4

Resonance #5

S0: 1 3 4 6

```

S1: 1 2 3 4 5
Resonance #6
S0: 1 3 4 5
S1: 1 2 3 4 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #11
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #12
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #14
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #15
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #16
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15868
1 1 3 3 3 3
1 1 3 3 4 4
3 3 1 1 1 1
3 3 1 1 1 1
3 4 1 1 2 2
3 4 1 1 2 2
has #5 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5

```

```

S1: 1 2 3 4 6
*****
The semigroup #15869
1 1 3 3 3 3
1 2 3 3 3 3
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
has #32 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #10
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #13
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #14
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #16
S0: 1 2 3 5 6

```

```

S1: 1 3 4 5
Resonance #17
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #18
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #20
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #21
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #23
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #24
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #26
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #27
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #28
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #29
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #30
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #31
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #32
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15876
1 1 3 3 3 3
1 2 3 3 3 6
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
3 6 1 1 1 1

```


has #22 resonances.

Resonance #1

S0: 1 2

S1: 3 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 3 6

S1: 1 3 4 5

Resonance #4

S0: 1 2 3 5

S1: 1 3 4 6

Resonance #5

S0: 1 2 3 4

S1: 1 3 5 6

Resonance #6

S0: 1 2 3 6

S1: 1 3 4 5 6

Resonance #7

S0: 1 2 3 5

S1: 1 3 4 5 6

Resonance #8

S0: 1 2 3 4

S1: 1 3 4 5 6

Resonance #9

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #10

S0: 1 2 3 4 6

S1: 1 3 5

Resonance #11

S0: 1 2 3 4 5

S1: 1 3 6

Resonance #12

S0: 1 2 3 5 6

S1: 1 3 4 6

Resonance #13

S0: 1 2 3 5 6

S1: 1 3 4 5

Resonance #14

S0: 1 2 3 4 6

S1: 1 3 5 6

Resonance #15

S0: 1 2 3 4 6

S1: 1 3 4 5

Resonance #16

S0: 1 2 3 4 5

S1: 1 3 5 6

Resonance #17

S0: 1 2 3 4 5

S1: 1 3 4 6

Resonance #18

S0: 1 2 3 5 6

S1: 1 3 4 5 6

Resonance #19

S0: 1 2 3 5 6

```

S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #21
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #22
S0: 1 2 3 4 5
S1: 1 3 4 5 6

```

The semigroup #15877

```

1 1 3 3 3 3
1 2 3 3 3 6
3 3 1 1 1 1
3 3 1 1 1 1
3 3 1 1 1 1
3 6 1 1 1 2

```

has #17 resonances.

```

Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #11
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #12
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #13
S0: 1 2 3 4 5

```

```

S1: 1 3 5 6
Resonance #14
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #15
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #16
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15884
1 1 3 3 3 3
1 2 3 3 5 5
3 3 1 1 1 1
3 3 1 1 1 1
3 5 1 1 1 1
3 5 1 1 1 1
has #12 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #7
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 5

```

S1: 1 2 3 5 6

The semigroup #15886

1 1 3 3 3 3
1 2 3 3 5 5
3 3 1 1 1 1
3 3 1 1 1 1
3 5 1 1 2 2
3 5 1 1 2 2

has #7 resonances.

Resonance #1

S0: 1 2

S1: 3 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 3 4

S1: 1 3 5 6

Resonance #4

S0: 1 2 3 4

S1: 1 3 4 5 6

Resonance #5

S0: 1 2 3 5 6

S1: 1 3 4

Resonance #6

S0: 1 2 3 5 6

S1: 1 2 3 4 5

Resonance #7

S0: 1 2 3 4 5

S1: 1 2 3 5 6

The semigroup #15890

1 1 3 3 3 3
1 2 3 3 5 6
3 3 1 1 1 1
3 3 1 1 1 1
3 5 1 1 1 1
3 6 1 1 1 1

has #20 resonances.

Resonance #1

S0: 1 2

S1: 3 4 5 6

Resonance #2

S0: 1 2 3

S1: 1 3 4 5 6

Resonance #3

S0: 1 2 3 6

S1: 1 3 4 5

Resonance #4

S0: 1 2 3 5

S1: 1 3 4 6

Resonance #5

S0: 1 2 3 4

S1: 1 3 5 6

Resonance #6

S0: 1 2 3 6

S1: 1 3 4 5 6
 Resonance #7
 S0: 1 2 3 5
 S1: 1 3 4 5 6
 Resonance #8
 S0: 1 2 3 4
 S1: 1 3 4 5 6
 Resonance #9
 S0: 1 2 3 5 6
 S1: 1 3 4
 Resonance #10
 S0: 1 2 3 4 6
 S1: 1 3 5
 Resonance #11
 S0: 1 2 3 4 5
 S1: 1 3 6
 Resonance #12
 S0: 1 2 3 5 6
 S1: 1 3 4 6
 Resonance #13
 S0: 1 2 3 5 6
 S1: 1 3 4 5
 Resonance #14
 S0: 1 2 3 4 6
 S1: 1 3 5 6
 Resonance #15
 S0: 1 2 3 4 6
 S1: 1 3 4 5
 Resonance #16
 S0: 1 2 3 4 5
 S1: 1 3 5 6
 Resonance #17
 S0: 1 2 3 4 5
 S1: 1 3 4 6
 Resonance #18
 S0: 1 2 3 5 6
 S1: 1 3 4 5 6
 Resonance #19
 S0: 1 2 3 4 6
 S1: 1 3 4 5 6
 Resonance #20
 S0: 1 2 3 4 5
 S1: 1 3 4 5 6

The semigroup #15894

1 1 3 3 3 3
 1 2 3 4 4 4
 3 3 1 1 1 1
 3 4 1 1 1 1
 3 4 1 1 1 1
 3 4 1 1 1 1

has #9 resonances.

Resonance #1

S0: 1 2

S1: 3 4 5 6

Resonance #2

S0: 1 2 3

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #15898

```

1 1 3 3 3 3
1 2 3 4 4 4
3 3 1 1 1 1
3 4 1 2 2 2
3 4 1 2 2 2
3 4 1 2 2 2

```

has #4 resonances.

```

Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #4
S0: 1 2 3 4 5
S1: 1 2 3 4 6

```

The semigroup #15899

```

1 1 3 3 3 3
1 2 3 4 4 6
3 3 1 1 1 1
3 4 1 1 1 1
3 4 1 1 1 1
3 6 1 1 1 1

```

has #10 resonances.

```

Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3

```

```

S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #8
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #9
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15902
1 1 3 3 3 3
1 2 3 4 5 6
3 3 1 1 1 1
3 4 1 1 1 1
3 5 1 1 1 1
3 6 1 1 1 1
has #20 resonances.
Resonance #1
S0: 1 2
S1: 3 4 5 6
Resonance #2
S0: 1 2 3
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5
Resonance #4
S0: 1 2 3 5
S1: 1 3 4 6
Resonance #5
S0: 1 2 3 4
S1: 1 3 5 6
Resonance #6
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #8
S0: 1 2 3 4

```

```

S1: 1 3 4 5 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4
Resonance #10
S0: 1 2 3 4 6
S1: 1 3 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 6
Resonance #12
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #13
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #14
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #15
S0: 1 2 3 4 6
S1: 1 3 4 5
Resonance #16
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #17
S0: 1 2 3 4 5
S1: 1 3 4 6
Resonance #18
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #19
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #20
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****

```

The semigroup #15905

```

1 1 3 3 3 6
1 1 3 3 3 6
3 3 6 6 6 1
3 3 6 6 6 1
3 3 6 6 6 1
6 6 1 1 1 3

```

has #12 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 3 4 5 6

```



```

S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #7
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5 6

```

```

*****

```

```

The semigroup #15907

```

```

1 1 3 3 3 6
1 1 3 3 4 6
3 3 6 6 6 1
3 3 6 6 6 1
3 4 6 6 6 1
6 6 1 1 1 3

```

```

has #5 resonances.

```

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 3 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5 6

```

```

*****

```

```

The semigroup #15908

```

```

1 1 3 3 3 6
1 2 3 3 3 6
3 3 6 6 6 1
3 3 6 6 6 1
3 3 6 6 6 1
6 6 1 1 1 3

```

```

has #7 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #15912
1 1 3 3 3 6
1 2 3 3 5 6
3 3 6 6 6 1
3 3 6 6 6 1
3 5 6 6 6 1
6 6 1 1 1 3
has #5 resonances.
Resonance #1
S0: 1 2 3 6
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 3 4 5 6
*****
The semigroup #15915
1 1 3 3 3 6
1 2 3 4 4 6
3 3 6 6 6 1
3 4 6 6 6 1
3 4 6 6 6 1
6 6 1 1 1 3
has #2 resonances.
Resonance #1
S0: 1 2 3 6

```

S1: 1 3 4 5 6
 Resonance #2
 S0: 1 2 3 4 6
 S1: 1 3 4 5 6

The semigroup #15917

1 1 3 3 3 6
 1 2 3 4 5 6
 3 3 6 6 6 1
 3 4 6 6 6 1
 3 5 6 6 6 1
 6 6 1 1 1 3

has #5 resonances.

Resonance #1

S0: 1 2 3 6
 S1: 1 3 4 5 6

Resonance #2

S0: 1 2 3 5 6
 S1: 1 3 4 6

Resonance #3

S0: 1 2 3 4 6
 S1: 1 3 5 6

Resonance #4

S0: 1 2 3 5 6
 S1: 1 3 4 5 6

Resonance #5

S0: 1 2 3 4 6
 S1: 1 3 4 5 6

The semigroup #15918

1 1 3 3 5 5
 1 1 3 3 5 5
 3 3 5 5 1 1
 3 3 5 5 1 1
 5 5 1 1 3 3
 5 5 1 1 3 3

has #12 resonances.

Resonance #1

S0: 1 3 5 6
 S1: 1 2 3 4 5

Resonance #2

S0: 1 3 4 5
 S1: 1 2 3 5 6

Resonance #3

S0: 1 2 3 5
 S1: 1 3 4 5 6

Resonance #4

S0: 1 3 4 5 6
 S1: 1 2 3 5

Resonance #5

S0: 1 2 3 5 6
 S1: 1 3 4 5

Resonance #6

S0: 1 2 3 4 5
 S1: 1 3 5 6

Resonance #7

S0: 1 3 4 5 6

```

S1: 1 2 3 5 6
Resonance #8
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****

```

The semigroup #15919

```

1 1 3 3 5 5
1 1 3 3 5 5
3 3 5 5 1 1
3 3 5 5 1 1
5 5 1 1 3 3
5 5 1 1 3 4

```

has #6 resonances.

```

Resonance #1
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6

```

The semigroup #15921

```

1 1 3 3 5 5
1 1 3 3 5 5
3 3 5 5 1 1
3 3 5 5 1 2
5 5 1 1 3 3
5 5 1 2 3 3

```

has #5 resonances.

```

Resonance #1
S0: 1 3 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 3 4 5

```

```

S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15922
1 1 3 3 5 5
1 1 3 3 5 5
3 3 5 5 1 1
3 3 5 5 1 2
5 5 1 1 3 3
5 5 1 2 3 4
has #2 resonances.
Resonance #1
S0: 1 3 4 5
S1: 1 2 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15923
1 1 3 3 5 5
1 2 3 3 5 5
3 3 5 5 1 1
3 3 5 5 1 1
5 5 1 1 3 3
5 5 1 1 3 3
has #7 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #7
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15924

```

```

1 1 3 3 5 5
1 2 3 3 5 5
3 3 5 5 1 1
3 3 5 5 1 1
5 5 1 1 3 3
5 5 1 1 3 4
has #3 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 4 5 6
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15927
1 1 3 3 5 5
1 2 3 3 5 6
3 3 5 5 1 1
3 3 5 5 1 1
5 5 1 1 3 3
5 6 1 1 3 3
has #5 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15930
1 1 3 3 5 5
1 2 3 4 5 6
3 3 5 5 1 1
3 4 5 5 1 1
5 5 1 1 3 3
5 6 1 1 3 3
has #5 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 3 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5
Resonance #3
S0: 1 2 3 4 5

```

```

S1: 1 3 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
Resonance #5
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15931
1 1 3 3 5 5
1 2 3 4 5 6
3 3 5 5 1 1
3 4 5 5 1 1
5 5 1 1 3 3
5 6 1 1 3 4
has #2 resonances.
Resonance #1
S0: 1 2 3 4 5
S1: 1 3 5 6
Resonance #2
S0: 1 2 3 4 5
S1: 1 3 4 5 6
*****
The semigroup #15934
1 1 3 3 5 6
1 1 3 3 5 6
3 3 1 1 6 5
3 3 1 1 6 5
5 5 6 6 1 3
6 6 5 5 3 1
has #5 resonances.
Resonance #1
S0: 1 2 6
S1: 3 4 5
Resonance #2
S0: 1 2 5
S1: 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15935
1 1 3 3 5 6
1 1 3 3 5 6
3 3 1 1 6 5
3 3 1 1 6 5
5 5 6 6 3 1
6 6 5 5 1 3
has #3 resonances.
Resonance #1
S0: 1 2 3 4

```

```

S1: 5 6
Resonance #2
S0: 1 3 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15936
1 1 3 3 5 6
1 1 3 3 5 6
3 3 1 1 6 5
3 3 1 2 6 5
5 5 6 6 1 3
6 6 5 5 3 1
has #4 resonances.
Resonance #1
S0: 1 2 6
S1: 3 4 5
Resonance #2
S0: 1 2 5
S1: 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15937
1 1 3 3 5 6
1 1 3 3 5 6
3 3 1 1 6 5
3 3 1 2 6 5
5 5 6 6 3 1
6 6 5 5 1 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15938
1 1 3 3 5 6
1 1 3 3 5 6
3 3 5 5 6 1
3 3 5 5 6 1
5 5 6 6 1 3
6 6 1 1 3 5
has #3 resonances.
Resonance #1
S0: 1 2 5
S1: 3 4 6
Resonance #2
S0: 1 3 4 5 6

```



```

S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15939
1 1 3 3 5 6
1 2 3 3 5 6
3 3 1 1 6 5
3 3 1 1 6 5
5 5 6 6 1 3
6 6 5 5 3 1
has #4 resonances.
Resonance #1
S0: 1 2 6
S1: 3 4 5
Resonance #2
S0: 1 2 5
S1: 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15940
1 1 3 3 5 6
1 2 3 3 5 6
3 3 1 1 6 5
3 3 1 1 6 5
5 5 6 6 3 1
6 6 5 5 1 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15943
1 1 3 3 5 6
1 2 3 3 5 6
3 3 5 5 6 1
3 3 5 5 6 1
5 5 6 6 1 3
6 6 1 1 3 5
has #2 resonances.
Resonance #1
S0: 1 2 5
S1: 3 4 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15945

```

```

1 1 3 3 5 6
1 2 3 4 5 6
3 3 1 1 6 5
3 4 1 1 6 5
5 5 6 6 1 3
6 6 5 5 3 1
has #4 resonances.
Resonance #1
S0: 1 2 6
S1: 3 4 5
Resonance #2
S0: 1 2 5
S1: 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15946
1 1 3 3 5 6
1 2 3 4 5 6
3 3 1 1 6 5
3 4 1 1 6 5
5 5 6 6 3 1
6 6 5 5 1 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15947
1 1 3 3 5 6
1 2 3 4 5 6
3 3 1 1 6 5
3 4 1 2 6 5
5 5 6 6 1 3
6 6 5 5 3 1
has #4 resonances.
Resonance #1
S0: 1 2 6
S1: 3 4 5
Resonance #2
S0: 1 2 5
S1: 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15948

```

```

1 1 3 3 5 6
1 2 3 4 5 6
3 3 1 1 6 5
3 4 1 2 6 5
5 5 6 6 3 1
6 6 5 5 1 3
has #2 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15949
1 1 3 3 5 6
1 2 3 4 5 6
3 3 5 5 6 1
3 4 5 5 6 1
5 5 6 6 1 3
6 6 1 1 3 5
has #2 resonances.
Resonance #1
S0: 1 2 5
S1: 3 4 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 3 4 5 6
*****
The semigroup #15952
1 2 2 2 2 2
2 1 1 1 1 1
2 1 1 1 1 1
2 1 1 1 1 1
2 1 1 1 1 1
2 1 1 1 1 1
has #51 resonances.
Resonance #1
S0: 1
S1: 2 3 4 5 6
Resonance #2
S0: 1 2 6
S1: 1 2 3 4 5
Resonance #3
S0: 1 2 5
S1: 1 2 3 4 6
Resonance #4
S0: 1 2 4
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 5 6
S1: 1 2 3 4
Resonance #7
S0: 1 2 4 6

```

S1: 1 2 3 5
Resonance #8
S0: 1 2 3 6
S1: 1 2 4 5
Resonance #9
S0: 1 2 4 5
S1: 1 2 3 6
Resonance #10
S0: 1 2 3 5
S1: 1 2 4 6
Resonance #11
S0: 1 2 3 4
S1: 1 2 5 6
Resonance #12
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #13
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #14
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #15
S0: 1 2 4 6
S1: 1 2 3 4 5
Resonance #16
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #17
S0: 1 2 3 6
S1: 1 2 3 4 5
Resonance #18
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #19
S0: 1 2 4 5
S1: 1 2 3 4 6
Resonance #20
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #21
S0: 1 2 3 5
S1: 1 2 3 4 6
Resonance #22
S0: 1 2 3 4
S1: 1 2 4 5 6
Resonance #23
S0: 1 2 3 4
S1: 1 2 3 5 6
Resonance #24
S0: 1 2 4 5 6
S1: 1 2 3
Resonance #25
S0: 1 2 3 5 6
S1: 1 2 4
Resonance #26
S0: 1 2 3 4 6

S1: 1 2 5
Resonance #27
S0: 1 2 3 4 5
S1: 1 2 6
Resonance #28
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #29
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #30
S0: 1 2 4 5 6
S1: 1 2 3 4
Resonance #31
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #32
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #33
S0: 1 2 3 5 6
S1: 1 2 3 4
Resonance #34
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #35
S0: 1 2 3 4 6
S1: 1 2 4 5
Resonance #36
S0: 1 2 3 4 6
S1: 1 2 3 5
Resonance #37
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #38
S0: 1 2 3 4 5
S1: 1 2 4 6
Resonance #39
S0: 1 2 3 4 5
S1: 1 2 3 6
Resonance #40
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #41
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #42
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #43
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #44
S0: 1 2 3 5 6
S1: 1 2 3 4 6
Resonance #45
S0: 1 2 3 5 6

```

S1: 1 2 3 4 5
Resonance #46
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #47
S0: 1 2 3 4 6
S1: 1 2 3 5 6
Resonance #48
S0: 1 2 3 4 6
S1: 1 2 3 4 5
Resonance #49
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #50
S0: 1 2 3 4 5
S1: 1 2 3 5 6
Resonance #51
S0: 1 2 3 4 5
S1: 1 2 3 4 6
*****
The semigroup #15953
1 2 2 2 2 6
2 6 6 6 6 1
2 6 6 6 6 1
2 6 6 6 6 1
2 6 6 6 6 1
6 1 1 1 1 2
has #12 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 6
Resonance #2
S0: 1 2 4 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 6
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 6
Resonance #6
S0: 1 2 3 4 6
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 5 6

```

```

S1: 1 2 3 4 6
Resonance #11
S0: 1 2 3 4 6
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 6
S1: 1 2 3 5 6
*****
The semigroup #15954
1 2 2 2 5 5
2 5 5 5 1 1
2 5 5 5 1 1
2 5 5 5 1 1
5 1 1 1 2 2
5 1 1 1 2 2
has #12 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #7
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #8
S0: 1 2 4 5 6
S1: 1 2 3 4 5
Resonance #9
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #10
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #11
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #12
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15955
1 2 2 2 5 5
2 5 5 5 1 1
2 5 5 5 1 1

```

```

2 5 5 5 1 1
5 1 1 1 2 2
5 1 1 1 2 3
has #6 resonances.
Resonance #1
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #2
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #3
S0: 1 2 3 4 5
S1: 1 2 5 6
Resonance #4
S0: 1 2 3 5 6
S1: 1 2 3 4 5
Resonance #5
S0: 1 2 3 4 5
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 4 5
S1: 1 2 3 5 6
*****
The semigroup #15956
1 2 2 2 5 5
2 5 5 5 1 1
2 5 5 5 1 1
2 5 5 6 1 1
5 1 1 1 2 2
5 1 1 1 2 2
has #6 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
Resonance #6
S0: 1 2 3 5 6
S1: 1 2 3 4 5
*****
The semigroup #15959
1 2 2 2 5 5
2 5 5 5 1 1
2 5 5 6 1 1
2 5 6 5 1 1
5 1 1 1 2 2
5 1 1 1 2 2

```



```

has #5 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5
S1: 1 2 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15960
1 2 2 2 5 5
2 5 5 5 1 1
2 5 5 6 1 1
2 5 6 6 1 1
5 1 1 1 2 2
5 1 1 1 2 2
has #3 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15961
1 2 2 2 5 5
2 5 5 5 1 1
2 5 6 5 1 1
2 5 5 6 1 1
5 1 1 1 2 2
5 1 1 1 2 2
has #5 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6

```

```

S1: 1 2 4 5 6
*****
The semigroup #15963
1 2 2 2 5 5
2 5 5 5 1 1
2 5 6 6 1 1
2 5 6 6 1 1
5 1 1 1 2 2
5 1 1 1 2 2
has #3 resonances.
Resonance #1
S0: 1 2 5 6
S1: 1 2 3 4 5
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15964
1 2 2 2 5 6
2 1 1 1 6 5
2 1 1 1 6 5
2 1 1 1 6 5
5 6 6 6 1 2
6 5 5 5 2 1
has #5 resonances.
Resonance #1
S0: 1 6
S1: 2 3 4 5
Resonance #2
S0: 1 5
S1: 2 3 4 6
Resonance #3
S0: 1 2 3 4
S1: 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #5
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15965
1 2 2 2 5 6
2 1 1 1 6 5
2 1 1 1 6 5
2 1 1 1 6 5
5 6 6 6 2 1
6 5 5 5 1 2
has #3 resonances.
Resonance #1
S0: 1 2 3 4
S1: 5 6
Resonance #2
S0: 1 2 4 5 6

```

```

S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15966
1 2 2 2 5 6
2 5 5 5 6 1
2 5 5 5 6 1
2 5 5 5 6 1
5 6 6 6 1 2
6 1 1 1 2 5
has #3 resonances.
Resonance #1
S0: 1 5
S1: 2 3 4 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 5 6
Resonance #3
S0: 1 2 3 5 6
S1: 1 2 4 5 6
*****
The semigroup #15967
1 2 2 4 4 6
2 1 1 6 6 4
2 1 1 6 6 4
4 6 6 1 1 2
4 6 6 1 1 2
6 4 4 2 2 1
has #5 resonances.
Resonance #1
S0: 1 6
S1: 2 3 4 5
Resonance #2
S0: 1 4 5
S1: 2 3 6
Resonance #3
S0: 1 2 3
S1: 4 5 6
Resonance #4
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #5
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****
The semigroup #15968
1 2 2 4 4 6
2 1 1 6 6 4
2 1 1 6 6 4
4 6 6 2 2 1
4 6 6 2 2 1
6 4 4 1 1 2
has #3 resonances.
Resonance #1
S0: 1 2 3

```

```

S1: 4 5 6
Resonance #2
S0: 1 2 4 5 6
S1: 1 2 3 4 6
Resonance #3
S0: 1 2 3 4 6
S1: 1 2 4 5 6
*****

```

The semigroup #15969

```

1 2 2 4 4 6
2 1 1 6 6 4
2 1 1 6 6 4
4 6 6 2 2 1
4 6 6 2 3 1
6 4 4 1 1 2

```

has #2 resonances.

Resonance #1

```

S0: 1 2 3
S1: 4 5 6

```

Resonance #2

```

S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

The semigroup #15970

```

1 2 2 4 4 6
2 6 6 1 1 4
2 6 6 1 1 4
4 1 1 6 6 2
4 1 1 6 6 2
6 4 4 2 2 1

```

has #3 resonances.

Resonance #1

```

S0: 1 6
S1: 2 3 4 5

```

Resonance #2

```

S0: 1 2 4 5 6
S1: 1 2 3 4 6

```

Resonance #3

```

S0: 1 2 3 4 6
S1: 1 2 4 5 6

```

The semigroup #15972

```

1 2 3 4 5 6
2 1 4 3 6 5
3 4 5 6 1 2
4 3 6 5 2 1
5 6 1 2 3 4
6 5 2 1 4 3

```

has #1 resonances.

Resonance #1

```

S0: 1 3 5
S1: 2 4 6

```

There are 2059 semigroups with at least one resonance and there are in total 25512 different resonances.