```
Circuit: s27_input.txt Input Vector: 1101101
-----Fault Detected-----
1 stuck at 0
3 stuck at 1
5 stuck at 0
7 stuck at 0
9 stuck at 1
11 stuck at 0
12 stuck at 0
13 stuck at 0
15 stuck at 1
-----End of Detection-----
Circuit: s27_input.txt Input Vector: 0101001
-----Fault Detected-----
16 stuck at 1
1 stuck at 1
19 stuck at 1
3 stuck at 1
20 stuck at 1
5 stuck at 0
7 stuck at 1
8 stuck at 1
9 stuck at 1
11 stuck at 0
12 stuck at 1
14 stuck at 0
15 stuck at 1
-----End of Detection-----
```

```
Circuit: s298f_2_input.txt Input Vector: 10101011110010101
-----Fault Detected-----
3 stuck at 0
5 stuck at 0
6 stuck at 1
7 stuck at 0
8 stuck at 0
9 stuck at 0
10 stuck at 0
11 stuck at 1
12 stuck at 1
15 stuck at 0
18 stuck at 1
19 stuck at 1
20 stuck at 1
21 stuck at 1
22 stuck at 1
23 stuck at 1
24 stuck at 0
25 stuck at 0
26 stuck at 0
27 stuck at 0
28 stuck at 1
29 stuck at 1
30 stuck at 1
31 stuck at 1
32 stuck at 0
33 stuck at 1
34 stuck at 0
35 stuck at 0
36 stuck at 1
37 stuck at 0
39 stuck at 1
41 stuck at 1
45 stuck at 1
48 stuck at 0
49 stuck at 0
50 stuck at 0
51 stuck at 0
```

52 stuck at 1 53 stuck at 1 54 stuck at 1 55 stuck at 1 56 stuck at 0 58 stuck at 0 64 stuck at 1 66 stuck at 0 67 stuck at 1 68 stuck at 1 95 stuck at 0 102 stuck at 0 103 stuck at 0 104 stuck at 0 107 stuck at 1 108 stuck at 1 109 stuck at 1 110 stuck at 1 111 stuck at 1

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113 stuck at 1
115 stuck at 1
116 stuck at 1
118 stuck at 0
119 stuck at 0
121 stuck at 0
122 stuck at 0
132 stuck at 0
133 stuck at 0
135 stuck at 0
138 stuck at 0
143 stuck at 1
144 stuck at 1
145 stuck at 1
149 stuck at 0
152 stuck at 0
158 stuck at 0
159 stuck at 0
161 stuck at 0
163 stuck at 0
166 stuck at 1
167 stuck at 1
168 stuck at 1
169 stuck at 1
170 stuck at 1
173 stuck at 0
182 stuck at 1
183 stuck at 1
186 stuck at 1
187 stuck at 1
188 stuck at 1
-----End of Detection-----
Circuit: s298f_2_input.txt Input Vector: 11101110101110111
-----Fault Detected-----
64 stuck at 0
1 stuck at 0
65 stuck at 1
66 stuck at 1
67 stuck at 1
68 stuck at 1
6 stuck at 0
7 stuck at 0
8 stuck at 1
9 stuck at 0
10 stuck at 1
11 stuck at 0
12 stuck at 0
15 stuck at 0
18 stuck at 1
19 stuck at 1
20 stuck at 1
21 stuck at 1
22 stuck at 1
23 stuck at 1
24 stuck at 1
152 stuck at 1
25 stuck at 1
26 stuck at 1
27 stuck at 1
```

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28 stuck at 1
29 stuck at 1
30 stuck at 1
31 stuck at 1
32 stuck at 0
33 stuck at 0
34 stuck at 0
35 stuck at 1
36 stuck at 0
37 stuck at 1
166 stuck at 0
102 stuck at 1
168 stuck at 0
170 stuck at 0
43 stuck at 0
172 stuck at 0
173 stuck at 0
45 stuck at 1
174 stuck at 0
47 stuck at 1
49 stuck at 1
51 stuck at 1
53 stuck at 0
182 stuck at 0
55 stuck at 0
57 stuck at 0
59 stuck at 0
63 stuck at 1
-----End of Detection-----
```

$[0.5157894736842106,\ 0.7263157894736842,\ 0.9631578947368421]$ Circuit: s344f_2_input.txt Input Vector: 101010101010111101111111 -----Fault Detected-----1 stuck at 0 2 stuck at 1 3 stuck at 0 4 stuck at 1 5 stuck at 0 6 stuck at 1 7 stuck at 0 8 stuck at 1 9 stuck at 0 10 stuck at 1 11 stuck at 0 12 stuck at 1 13 stuck at 0 14 stuck at 0 15 stuck at 0 16 stuck at 0 25 stuck at 1 26 stuck at 1 27 stuck at 1 28 stuck at 0 29 stuck at 0 30 stuck at 0 31 stuck at 0 32 stuck at 1 33 stuck at 0 34 stuck at 1 35 stuck at 0 36 stuck at 1 37 stuck at 0 38 stuck at 0 39 stuck at 0 40 stuck at 1 41 stuck at 0 42 stuck at 1

43 stuck at 0 44 stuck at 1 45 stuck at 0 46 stuck at 1 47 stuck at 0 48 stuck at 0 49 stuck at 1 50 stuck at 0 54 stuck at 1 60 stuck at 0 61 stuck at 1 62 stuck at 1 64 stuck at 0 65 stuck at 1 66 stuck at 1 67 stuck at 0 68 stuck at 1 69 stuck at 1 70 stuck at 1 71 stuck at 1 72 stuck at 1

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73 stuck at 1
76 stuck at 1
77 stuck at 1
78 stuck at 1
91 stuck at 0
92 stuck at 1
95 stuck at 1
96 stuck at 1
97 stuck at 0
99 stuck at 0
101 stuck at 0
105 stuck at 1
106 stuck at 0
108 stuck at 0
109 stuck at 1
110 stuck at 1
111 stuck at 1
112 stuck at 0
114 stuck at 0
115 stuck at 1
116 stuck at 1
144 stuck at 0
145 stuck at 0
146 stuck at 0
188 stuck at 1
189 stuck at 1
190 stuck at 1
-----End of Detection-----
Circuit: s344f_2_input.txt Input Vector: 111010111010101010001100
-----Fault Detected-----
1 stuck at 0
2 stuck at 0
3 stuck at 0
4 stuck at 1
5 stuck at 0
6 stuck at 1
7 stuck at 0
8 stuck at 0
9 stuck at 0
10 stuck at 1
11 stuck at 0
12 stuck at 1
13 stuck at 0
14 stuck at 1
15 stuck at 0
16 stuck at 1
25 stuck at 1
26 stuck at 1
27 stuck at 1
28 stuck at 0
29 stuck at 1
30 stuck at 0
31 stuck at 1
32 stuck at 0
33 stuck at 0
34 stuck at 0
35 stuck at 1
36 stuck at 1
37 stuck at 0
```

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38 stuck at 1
39 stuck at 0
40 stuck at 1
41 stuck at 0
42 stuck at 1
43 stuck at 0
44 stuck at 1
45 stuck at 0
46 stuck at 1
47 stuck at 1
48 stuck at 1
49 stuck at 0
50 stuck at 1
51 stuck at 0
52 stuck at 0
53 stuck at 1
55 stuck at 0
56 stuck at 1
57 stuck at 0
58 stuck at 1
59 stuck at 1
60 stuck at 1
61 stuck at 1
62 stuck at 1
63 stuck at 1
64 stuck at 1
65 stuck at 0
67 stuck at 0
68 stuck at 1
69 stuck at 0
70 stuck at 1
71 stuck at 0
72 stuck at 0
73 stuck at 1
76 stuck at 0
78 stuck at 0
79 stuck at 0
80 stuck at 0
82 stuck at 0
85 stuck at 0
86 stuck at 0
88 stuck at 0
91 stuck at 1
92 stuck at 0
93 stuck at 0
94 stuck at 0
95 stuck at 1
96 stuck at 1
97 stuck at 0
99 stuck at 1
100 stuck at 1
101 stuck at 0
103 stuck at 0
104 stuck at 1
117 stuck at 0
118 stuck at 1
119 stuck at 1
120 stuck at 1
```

122 stuck at 0

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123 stuck at 0
124 stuck at 1
125 stuck at 1
126 stuck at 0
127 stuck at 1
128 stuck at 1
130 stuck at 0
131 stuck at 0
132 stuck at 1
133 stuck at 1
134 stuck at 1
136 stuck at 0
137 stuck at 1
138 stuck at 1
139 stuck at 1
140 stuck at 1
142 stuck at 0
144 stuck at 0
146 stuck at 0
147 stuck at 1
148 stuck at 1
149 stuck at 0
153 stuck at 1
154 stuck at 1
155 stuck at 0
156 stuck at 0
162 stuck at 1
163 stuck at 1
164 stuck at 1
165 stuck at 0
169 stuck at 1
170 stuck at 0
171 stuck at 0
173 stuck at 1
174 stuck at 1
175 stuck at 0
179 stuck at 0
181 stuck at 1
182 stuck at 1
183 stuck at 1
184 stuck at 1
186 stuck at 1
188 stuck at 0
189 stuck at 0
-----End of Detection-----
```

```
Circuit: s349f_2_input.txt Input Vector: 1010000000101010111111111
```

```
-----Fault Detected-----
1 stuck at 0
2 stuck at 1
3 stuck at 0
4 stuck at 1
5 stuck at 1
6 stuck at 1
7 stuck at 1
8 stuck at 1
9 stuck at 1
10 stuck at 1
11 stuck at 0
12 stuck at 1
13 stuck at 0
14 stuck at 1
15 stuck at 0
16 stuck at 1
25 stuck at 0
26 stuck at 1
27 stuck at 0
28 stuck at 1
29 stuck at 1
30 stuck at 1
31 stuck at 1
32 stuck at 1
33 stuck at 1
34 stuck at 1
35 stuck at 0
36 stuck at 1
37 stuck at 0
38 stuck at 1
39 stuck at 0
40 stuck at 1
41 stuck at 0
42 stuck at 0
43 stuck at 1
44 stuck at 0
45 stuck at 0
46 stuck at 0
47 stuck at 0
48 stuck at 0
49 stuck at 0
50 stuck at 0
51 stuck at 1
52 stuck at 0
53 stuck at 1
54 stuck at 1
55 stuck at 1
56 stuck at 1
57 stuck at 1
58 stuck at 0
60 stuck at 0
62 stuck at 0
64 stuck at 1
65 stuck at 1
66 stuck at 0
67 stuck at 1
```

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68 stuck at 0
69 stuck at 1
70 stuck at 1
71 stuck at 1
72 stuck at 1
73 stuck at 1
74 stuck at 1
109 stuck at 0
111 stuck at 0
113 stuck at 0
115 stuck at 0
116 stuck at 1
118 stuck at 1
120 stuck at 0
121 stuck at 1
123 stuck at 0
124 stuck at 1
126 stuck at 0
127 stuck at 0
128 stuck at 1
129 stuck at 1
130 stuck at 1
131 stuck at 1
133 stuck at 0
134 stuck at 1
135 stuck at 1
137 stuck at 0
138 stuck at 1
171 stuck at 0
173 stuck at 0
174 stuck at 1
176 stuck at 0
177 stuck at 1
178 stuck at 1
179 stuck at 0
180 stuck at 0
181 stuck at 0
183 stuck at 0
187 stuck at 1
188 stuck at 1
189 stuck at 1
-----End of Detection-----
Circuit: s349f_2_input.txt Input Vector: 11111110101010101010101111
-----Fault Detected-----
1 stuck at 0
2 stuck at 0
3 stuck at 0
4 stuck at 0
5 stuck at 0
6 stuck at 0
7 stuck at 0
8 stuck at 1
9 stuck at 0
10 stuck at 1
11 stuck at 0
12 stuck at 1
13 stuck at 0
14 stuck at 1
15 stuck at 0
```

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25 stuck at 1
26 stuck at 1
27 stuck at 1
28 stuck at 0
29 stuck at 0
30 stuck at 0
31 stuck at 0
32 stuck at 0
33 stuck at 1
34 stuck at 0
35 stuck at 1
36 stuck at 1
37 stuck at 0
38 stuck at 1
39 stuck at 0
40 stuck at 0
41 stuck at 1
42 stuck at 1
43 stuck at 1
44 stuck at 0
45 stuck at 1
46 stuck at 0
47 stuck at 1
48 stuck at 1
49 stuck at 1
50 stuck at 1
51 stuck at 0
52 stuck at 0
53 stuck at 0
54 stuck at 0
55 stuck at 0
56 stuck at 0
57 stuck at 0
58 stuck at 1
59 stuck at 1
61 stuck at 0
62 stuck at 1
63 stuck at 1
65 stuck at 0
66 stuck at 0
67 stuck at 1
68 stuck at 0
69 stuck at 1
70 stuck at 0
71 stuck at 0
72 stuck at 0
74 stuck at 0
75 stuck at 0
76 stuck at 1
77 stuck at 1
78 stuck at 0
79 stuck at 1
80 stuck at 1
81 stuck at 0
82 stuck at 1
83 stuck at 1
84 stuck at 0
```

85 stuck at 1 86 stuck at 1

```
87 stuck at 0
88 stuck at 1
89 stuck at 1
90 stuck at 0
91 stuck at 1
92 stuck at 1
93 stuck at 0
94 stuck at 0
95 stuck at 0
96 stuck at 1
97 stuck at 0
99 stuck at 0
102 stuck at 0
103 stuck at 0
105 stuck at 0
108 stuck at 1
109 stuck at 1
110 stuck at 1
111 stuck at 1
112 stuck at 1
113 stuck at 1
114 stuck at 1
115 stuck at 1
116 stuck at 0
117 stuck at 0
130 stuck at 1
131 stuck at 1
133 stuck at 0
134 stuck at 1
135 stuck at 1
137 stuck at 0
138 stuck at 1
143 stuck at 1
144 stuck at 1
145 stuck at 1
150 stuck at 1
151 stuck at 1
152 stuck at 1
157 stuck at 1
158 stuck at 1
159 stuck at 1
162 stuck at 1
163 stuck at 1
164 stuck at 1
165 stuck at 1
166 stuck at 1
167 stuck at 0
168 stuck at 1
169 stuck at 0
171 stuck at 0
173 stuck at 0
174 stuck at 0
175 stuck at 0
177 stuck at 0
180 stuck at 1
181 stuck at 1
182 stuck at 1
183 stuck at 1
```

184 stuck at 1

```
185 stuck at 1
186 stuck at 1
187 stuck at 0
188 stuck at 0
-----End of Detection-----
```