Test 1 20x20

Original Map

s 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 0 0 0 0 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 0 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 0 0 0 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 0 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 0 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 0 e 1 0

Added in new antGroup 0

A1 trails count: 92 A2 trails count: 48 A3 trails count: 74 A4 trails count: 40 A5 trails count: 94 A6 trails count: 98 A7 trails count: 54 A8 trails count: 38 A9 trails count: 52 A10 trails count: 74

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 1

A1 trails count: 44 A2 trails count: 40 A3 trails count: 48 A4 trails count: 140 A5 trails count: 42 A6 trails count: 52 A7 trails count: 68 A8 trails count: 40 A9 trails count: 1044 A10 trails count: 176

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 2

A1 trails count: 542 A2 trails count: 230 A3 trails count: 162 A4 trails count: 434 A5 trails count: 620 A6 trails count: 1440 A7 trails count: 102 A8 trails count: 368 A9 trails count: 626 A10 trails count: 616

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 3

A1 trails count: 1188 A2 trails count: 1222 A3 trails count: 192 A4 trails count: 1688 A5 trails count: 164 A6 trails count: 350 A7 trails count: 1070 A8 trails count: 330 A9 trails count: 608 A10 trails count: 706

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 4

A1 trails count: 344 A2 trails count: 186 A3 trails count: 234 A4 trails count: 400 A5 trails count: 668 A6 trails count: 818 A7 trails count: 430 A8 trails count: 918 A9 trails count: 174 A10 trails count: 190

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 5

A1 trails count: 216 A2 trails count: 136 A3 trails count: 848 A4 trails count: 652 A5 trails count: 746 A6 trails count: 670 A7 trails count: 1080 A8 trails count: 418 A9 trails count: 1340 A10 trails count: 594

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 6

A1 trails count: 522 A2 trails count: 962 A3 trails count: 132 A4 trails count: 362 A5 trails count: 174 A6 trails count: 770 A7 trails count: 1086 A8 trails count: 604 A9 trails count: 310 A10 trails count: 566

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 7

A1 trails count: 438 A2 trails count: 782 A3 trails count: 960 A4 trails count: 1536 A5 trails count: 360 A6 trails count: 216 A7 trails count: 428 A8 trails count: 600 A9 trails count: 282 A10 trails count: 582

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 8

A1 trails count: 856 A2 trails count: 280 A3 trails count: 608 A4 trails count: 802 A5 trails count: 478 A6 trails count: 162 A7 trails count: 176 A8 trails count: 706 A9 trails count: 528 A10 trails count: 526

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0

Added in new antGroup 9

A1 trails count: 184 A2 trails count: 338 A3 trails count: 2410 A4 trails count: 158 A5 trails count: 422 A6 trails count: 1292 A7 trails count: 576 A8 trails count: 462 A9 trails count: 722 A10 trails count: 638

Ant Trail Min Size is: 38 Found at Ant8

Best Ant has size: 38, and has a path of:

s x x x 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0

0 1 1 x x x x 1 0 0 0 1 1 0 0 0 0 1 0 0

0 0 1 0 1 0 x x x x 0 0 0 1 0 0 0 0 0 0

0 0 1 0 1 0 0 0 0 x 0 0 1 0 1 0 0 0 0 0

0 0 1 0 0 0 1 1 0 x 0 0 1 0 0 0 0 1 0 0

0 0 0 0 0 0 1 0 0 x 0 0 0 0 0 0 1 0 0 0

0 1 1 0 0 0 1 0 0 x x 1 0 0 0 0 1 0 0 0

0 0 0 1 0 0 0 0 0 1 x x x 1 0 0 0 0 0 0

0 0 0 1 0 0 0 1 1 0 1 x x 1 0 0 0 1 0 0

0 0 1 0 0 1 0 1 1 0 0 x 1 0 0 1 0 0 1 0

0 0 0 0 0 0 0 0 1 0 0 x x x 0 0 0 0 1 0

0 1 1 0 0 0 1 1 1 0 0 1 1 x x x 0 1 0 0

0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 x 0 0 0 0

0 0 1 0 1 0 0 0 0 0 1 0 1 0 0 x 0 0 0 0

0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 x 1 1 0 0

0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 x 1 0 0 0

0 1 1 0 0 0 1 0 0 0 0 1 1 0 0 x 1 0 0 0

0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 x x 0 0 0

0 0 0 1 0 0 0 1 1 0 1 0 0 1 0 0 x 1 1 0

0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 x e 1 0