

Autoras: Adrieli Alexandre Caetano (20.1.8010)

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Link para o código fonte: https://github.com/julianamlemos/AEDS3_2023.git

Resolvendo o Problema do Labirinto

Para cada arquivo de labirinto abordado apresente o caminho do início até a saída e o tempo de execução em segundos para obter a resposta:

Maze3:

Caminho: (1, 0) (1, 1) (1, 2) (1, 3) (2, 3) (3, 3) (3, 4) (3, 5) (4, 5) (5, 5) (5, 6)

Tempo: 0.011967182159423828s

Maze10:

Caminho: (1, 0) (1, 1) (2, 1) (3, 1) (3, 2) (3, 3) (3, 4) (3, 5) (3, 6) (3, 7) (4, 7) (5, 7) (6, 7) (7, 7) (7, 8) (7, 9) (6, 9) (5, 9) (4, 9) (3, 9) (2, 9) (1, 9) (1, 10) (1, 11) (1, 12) (1, 13) (1, 14) (1, 15) (1, 16) (1, 17) (2, 17) (3, 17) (4, 17) (5, 17) (5, 18) (5, 19) (6, 19) (7, 19) (8, 19) (9, 19) (10, 19) (11, 19) (12, 19) (13, 19) (14, 19) (15, 19) (15, 18) (15, 17) (16, 17) (17, 17) (18, 17) (19, 17) (19, 18) (19, 19) (19, 20)

Tempo: 0.17405247688293457s

Maze20:

Caminho: (1, 0) (1, 1) (2, 1) (3, 1) (4, 1) (5, 1) (5, 2) (5, 3) (5, 4) (5, 5) (4, 5) (3, 5) (2, 5) (1, 5) (1, 6) (1, 7) (1, 8) (1, 9) (1, 10) (1, 11) (2, 11) (3, 11) (4, 11) (5, 11) (5, 12) (5, 13) (5, 14) (5, 15) (6, 15) (7, 15) (7, 14) (7, 13) (8, 13) (9, 13) (10, 13) (11, 13) (11, 14) (11, 15) (10, 15) (9, 15) (9, 16) (9, 17) (9, 18) (9, 19) (8, 19) (7, 19) (7, 20) (7, 21) (8, 21) (9, 21) (9, 22) (9, 23) (10, 23) (11, 23) (12, 23) (13, 23) (13, 24) (13, 25) (13, 26) (13, 27) (14, 27) (15, 27) (15, 26) (15, 25) (16, 25) (17, 25) (18, 25) (19, 25) (19, 26) (19, 27) (19, 28) (19, 29) (19, 30) (19, 31) (20, 31) (21, 31) (21, 30) (21, 29) (22, 29) (23, 29) (23, 30) (23, 31) (23, 32) (23, 33) (24, 33) (25, 33) (25, 34) (25, 35) (25, 36) (25, 37) (25, 38) (25, 39) (26, 39) (27, 39) (28, 39) (29, 39) (30, 39) (31, 39) (32, 39) (33, 39) (34, 39) (35, 39) (36, 39) (37, 39) (38, 39) (39, 39) (39, 40)

Tempo: 5.285463333129883s

Maze30:

Caminho: (1, 0) (1, 1) (1, 2) (1, 3) (1, 4) (1, 5) (2, 5) (3, 5) (3, 6) (3, 7) (4, 7) (5, 7) (5, 8) (5, 9) (4, 9) (3, 9) (3, 10) (3, 11) (4, 11) (5, 11) (6, 11) (7, 11) (8, 11) (9, 11) (10, 11) (11, 11) (11, 10) (11, 9) (12, 9) (13, 9) (14, 9) (15, 9) (16, 9) (17, 9) (17, 8) (17, 7) (17, 6) (17, 5) (18, 5) (19, 5) (19, 4) (19, 3) (18, 3) (17, 3) (17, 2) (17, 1) (18, 1) (19, 1) (20, 1) (21, 1) (22, 1) (23, 1) (23, 2) (23, 3) (23, 4) (23, 5) (22, 5) (21, 5) (21, 6) (21, 7) (22, 7) (23, 7) (24, 7) (25, 7) (25, 6) (25, 5) (26, 5) (27, 5) (28, 5) (29, 5) (30, 5) (31, 5) (32, 5) (33, 5) (34, 5) (35, 5) (36, 5) (37, 5) (37, 6) (37, 7) (37, 8) (37, 9) (37, 10) (37, 11) (37, 12) (37, 13) (37, 14) (37, 15) (37, 16) (37, 17) (38, 17) (39, 17) (39, 18) (39, 19) (38, 19) (37, 19) (37, 20) (37, 21) (37, 22) (37, 23) (37, 24) (37, 25) (37, 26) (37, 27) (37, 28) (37, 29) (37, 30) (37, 31) (37, 32) (37, 33) (37, 34) (37, 35) (36, 35) (35, 35) (35, 36) (35, 37) (34, 37) (33, 37) (33, 36) (33, 35) (32, 35) (31, 35) (30, 35) (29, 35) (29, 34) (29, 33) (28, 33) (27, 33) (26, 33) (25, 33) (24, 33) (23, 33) (22, 33) (21, 33) (21, 34) (21, 35) (20, 35) (19, 35) (18, 35) (17, 35) (16, 35) (15, 35) (15, 36) (15, 37) (16, 37) (17, 37) (18, 37) (19, 37) (20, 37) (21, 37) (22, 37) (23, 37) (24, 37) (25, 37) (25, 38) (25, 39) (25, 40) (25, 41) (25, 42) (25, 43) (25, 44) (25, 45) (25, 46) (25, 47) (24, 47) (23, 47) (22, 47) (21, 47) (21, 46)

(21, 45) (20, 45) (19, 45) (19, 44) (19, 43) (18, 43) (17, 43) (17, 42) (17, 41) (16, 41) (15, 41) (15, 42) (15, 43) (14, 43) (13, 43) (13, 44) (13, 45) (14, 45) (15, 45) (15, 46) (15, 47) (15, 48) (15, 49) (14, 49) (13, 49) (13, 50) (13, 51) (13, 52) (13, 53) (14, 53) (15, 53) (15, 54) (15, 55) (16, 55) (17, 55) (18, 55) (19, 55) (20, 55) (21, 55) (22, 55) (23, 55) (24, 55) (25, 55) (26, 55) (27, 55) (28, 55) (29, 55) (29, 54) (29, 53) (30, 53) (31, 53) (31, 52) (31, 51) (30, 51) (29, 51) (29, 50) (29, 49) (29, 48) (29, 47) (30, 47) (31, 47) (31, 46) (31, 45) (30, 45) (29, 45) (29, 44) (29, 43) (30, 43) (31, 43) (32, 43) (33, 43) (34, 43) (35, 43) (36, 43) (37, 43) (37, 42) (37, 41) (38, 41) (39, 41) (39, 42) (39, 43) (40, 43) (41, 43) (42, 43) (43, 43) (43, 44) (43, 45) (42, 45) (41, 45) (41, 46) (41, 47) (41, 48) (41, 49) (41, 50) (41, 51) (42, 51) (43, 51) (43, 52) (43, 53) (44, 53) (45, 53) (45, 54) (45, 55) (46, 55) (47, 55) (48, 55) (49, 55) (50, 55) (51, 55) (51, 54) (51, 53) (52, 53) (53, 53) (54, 53) (55, 53) (55, 54) (55, 55) (55, 56) (55, 57) (55, 58) (55, 59) (56, 59) (57, 59) (57, 58) (57, 57) (58, 57) (59, 57) (59, 58) (59, 59) (59, 60)

Tempo: 37.44176745414734s

Maze40:

Caminho: (1, 0) (1, 1) (1, 2) (1, 3) (1, 4) (1, 5) (2, 5) (3, 5) (4, 5) (5, 5) (5, 6) (5, 7) (5, 8) (5, 9) (5, 10) (5, 11) (5, 12) (5, 13) (4, 13) (3, 13) (3, 14) (3, 15) (4, 15) (5, 15) (6, 15) (7, 15) (8, 15) (9, 15) (10, 15) (11, 15) (12, 15) (13, 15) (13, 16) (13, 17) (13, 18) (13, 19) (13, 20) (13, 21) (14, 21) (15, 21) (15, 20) (15, 19) (15, 18) (15, 17) (15, 16) (15, 15) (16, 15) (17, 15) (17, 16) (17, 17) (18, 17) (19, 17) (20, 17) (21, 17) (21, 18) (21, 19) (21, 20) (21, 21) (22, 21) (23, 21) (23, 20) (23, 19) (23, 18) (23, 17) (24, 17) (25, 17) (26, 17) (27, 17) (28, 17) (29, 17) (29, 16) (29, 15) (30, 15) (31, 15) (31, 14) (31, 13) (32, 13) (33, 13) (33, 14) (33, 15) (33, 16) (33, 17) (33, 18) (33, 19) (32, 19) (31, 19) (31, 20) (31, 21) (31, 22) (31, 23) (32, 23) (33, 23) (33, 24) (33, 25) (34, 25) (35, 25) (36, 25) (37, 25) (37, 24) (37, 23) (38, 23) (39, 23) (39, 22) (39, 21) (39, 20) (39, 19) (39, 18) (39, 17) (39, 16) (39, 15) (40, 15) (41, 15) (42, 15) (43, 15) (44, 15) (45, 15) (45, 14) (45, 13) (46, 13) (47, 13) (48, 13) (49, 13) (49, 14) (49, 15) (50, 15) (51, 15) (52, 15) (53, 15) (54, 15) (55, 15) (55, 16) (55, 17) (55, 18) (55, 19) (56, 19) (57, 19) (58, 19) (59, 19) (59, 20) (59, 21) (60, 21) (61, 21) (61, 20) (61, 19) (62, 19) (63, 19) (64, 19) (65, 19) (65, 20) (65, 21) (65, 22) (65, 23) (64, 23) (63, 23) (63, 24) (63, 25) (64, 25) (65, 25) (66, 25) (67, 25) (67, 26) (67, 27) (67, 28) (67, 29) (67, 30) (67, 31) (66, 31) (65, 31) (65, 32) (65, 33) (65, 34) (65, 35) (64, 35) (63, 35) (62, 35) (61, 35) (61, 36) (61, 37) (62, 37) (63, 37) (63, 38) (63, 39) (64, 39) (65, 39) (65, 40) (65, 41) (65, 42) (65, 43) (65, 44) (65, 45) (65, 46) (65, 47) (65, 48) (65, 49) (66, 49) (67, 49) (67, 50) (67, 51) (67, 52) (67, 53) (67, 54) (67, 55) (67, 56) (67, 57) (67, 58) (67, 59) (66, 59) (65, 59) (64, 59) (63, 59) (63, 58) (63, 57) (63, 56) (63, 55) (62, 55) (61, 55) (60, 55) (59, 55) (59, 56) (59, 57) (59, 58) (59, 59) (59, 60) (59, 61) (58, 61) (57, 61) (57, 62) (57, 63) (58, 63) (59, 63) (59, 64) (59, 65) (59, 66) (59, 67) (59, 68) (59, 69) (59, 70) (59, 71) (60, 71) (61, 71) (61, 70) (61, 69) (62, 69) (63, 69) (64, 69) (65, 69) (66, 69) (67, 69) (68, 69) (69, 69) (69, 70) (69, 71) (69, 72) (69, 73) (70, 73) (71, 73) (71, 74) (71, 75) (72, 75) (73, 75) (73, 76) (73, 77) (74, 77) (75, 77) (75, 78) (75, 79) (76, 79) (77, 79) (78, 79) (79, 79) (79, 80)

Tempo: 168.00499963760376s

Maze50:

Caminho: (1, 0) (1, 1) (2, 1) (3, 1) (4, 1) (5, 1) (6, 1) (7, 1) (8, 1) (9, 1) (10, 1) (11, 1) (11, 2) (11, 3) (11, 4) (11, 5) (10, 5) (9, 5) (9, 6) (9, 7) (9, 8) (9, 9) (10, 9) (11, 9) (12, 9) (13, 9) (13, 10) (13, 11) (14, 11) (15, 11) (15, 10) (15, 9) (16, 9) (17, 9) (17, 10) (17, 11) (17, 12) (17, 13) (18, 13) (19, 13) (20, 13) (21, 13) (22, 13) (23, 13) (24, 13) (25, 13) (26, 13) (27, 13) (27, 12) (27, 11) (28, 11) (29, 11) (29, 12) (29, 13) (30, 13) (31, 13) (32, 13) (33, 13) (33, 14) (33, 15) (34, 15) (35, 15) (36, 15) (37, 15) (37, 14) (37, 13) (38, 13) (39, 13) (40, 13) (41, 13) (42, 13) (43, 13) (44, 13) (45, 13) (45, 12) (45, 11) (44, 11) (43, 11) (43, 10) (43, 9) (44, 9) (45, 9) (46, 9) (47, 9) (48, 9) (49, 9) (49, 8) (49, 7) (50, 7) (51, 7) (51, 8) (51, 9) (52, 9) (53, 9) (54, 9) (55, 9) (56, 9) (57, 9) (58, 9) (59, 9) (60, 9) (61, 9) (62, 9) (63, 9) (64, 9) (65, 9) (66, 9) (67, 9) (67, 8) (67, 7) (68, 7) (69, 7) (70, 7) (71, 7) (71, 8) (71, 9) (71, 10) (71, 11) (70, 11) (69, 11) (69, 12) (69, 13) (69, 14) (69, 15) (69, 16) (69, 17) (69, 18)

(69,19) (68, 19) (67, 19) (67, 18) (67, 17) (66, 17) (65, 17) (65, 18) (65, 19) (64, 19) (63, 19) (63, 20) (63, 21)
(62, 21) (61, 21) (60, 21) (59, 21) (58, 21) (57, 21) (57, 22) (57, 23) (57, 24) (57, 25) (56, 25) (55, 25) (54, 25)
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(90, 95) (91, 95) (91, 96) (91, 97) (92, 97) (93, 97) (94, 97) (95, 97) (96, 97) (97, 97) (97, 96) (97, 95) (98, 95)
(99, 95) (99, 96) (99, 97) (99, 98) (99, 99) (99, 100)

Tempo: 545.4958565235138s