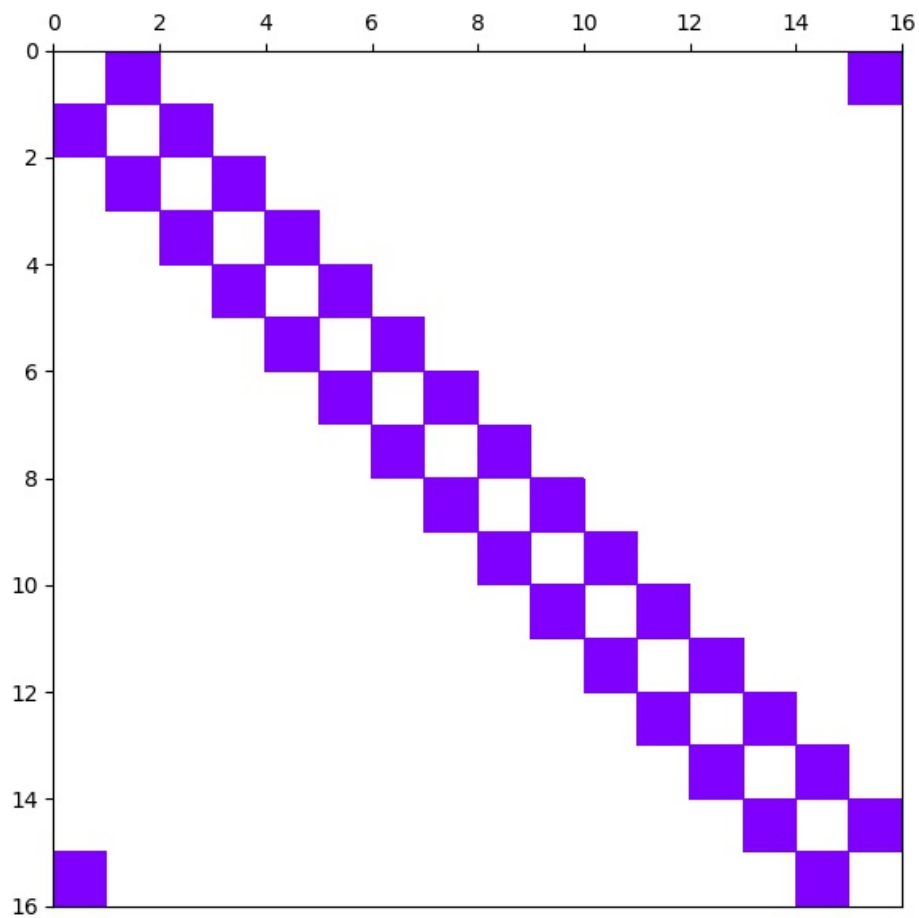


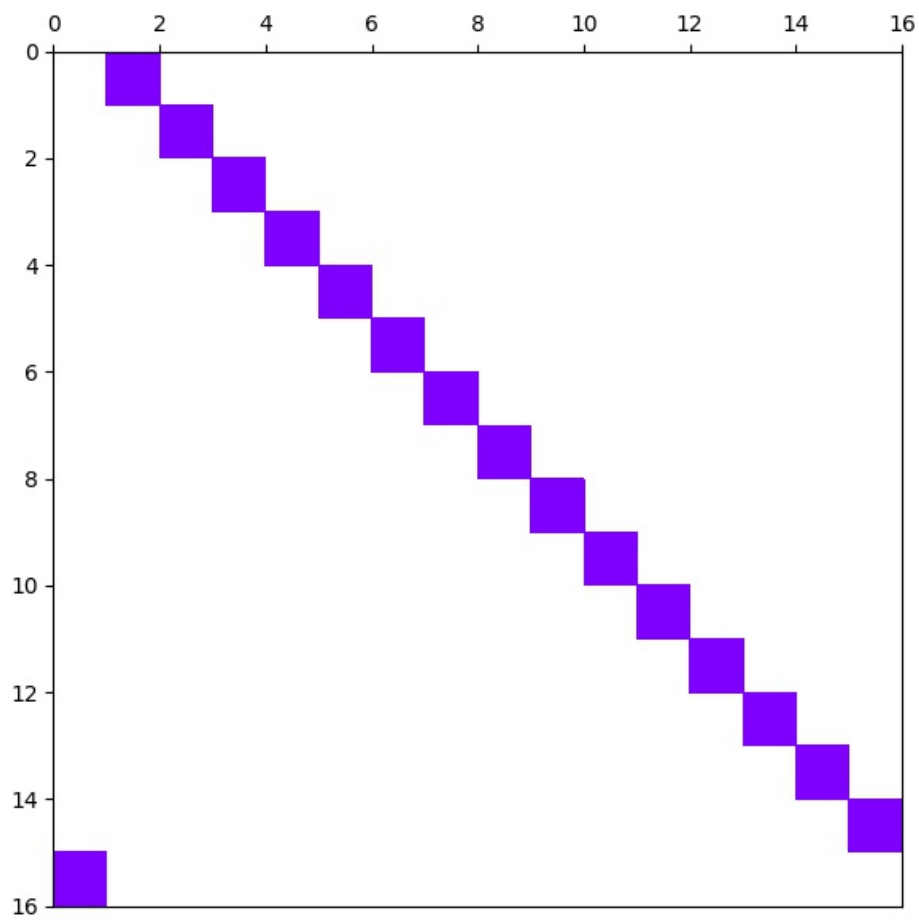
1. Gráf

1.1. Szomszédossági mátrix



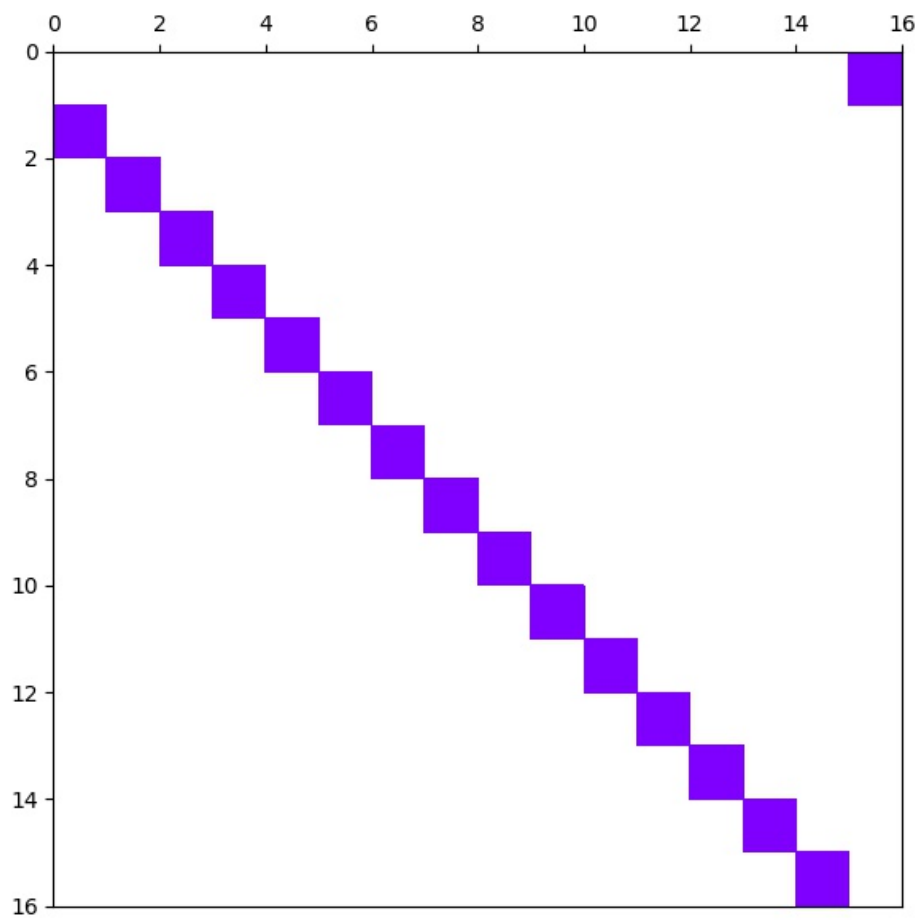
1. ábra. Gráf szomszédossági mátrixa

1.2. Érme oldal



2. ábra. 0. érmeoldal szomszédossági mátrixa

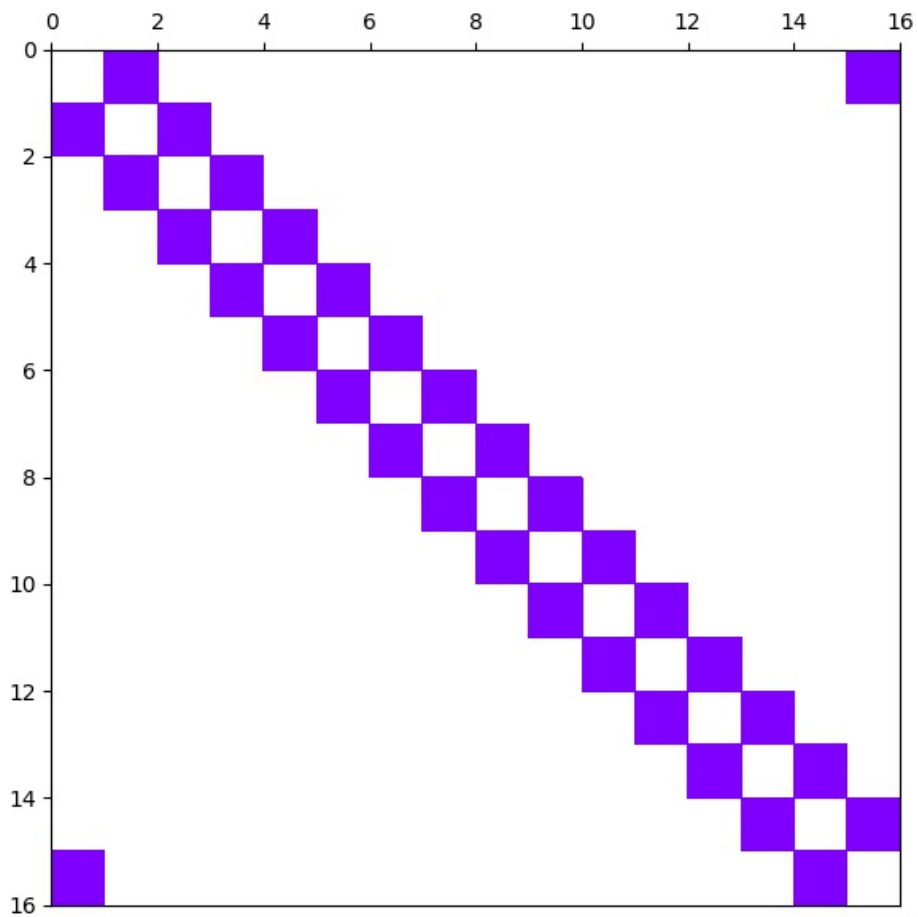
1.3. Érme oldal



3. ábra. 1. érmeoldal szomszédossági mátrixa

1.4. Részgráf

Írányítatlan élekből álló út.

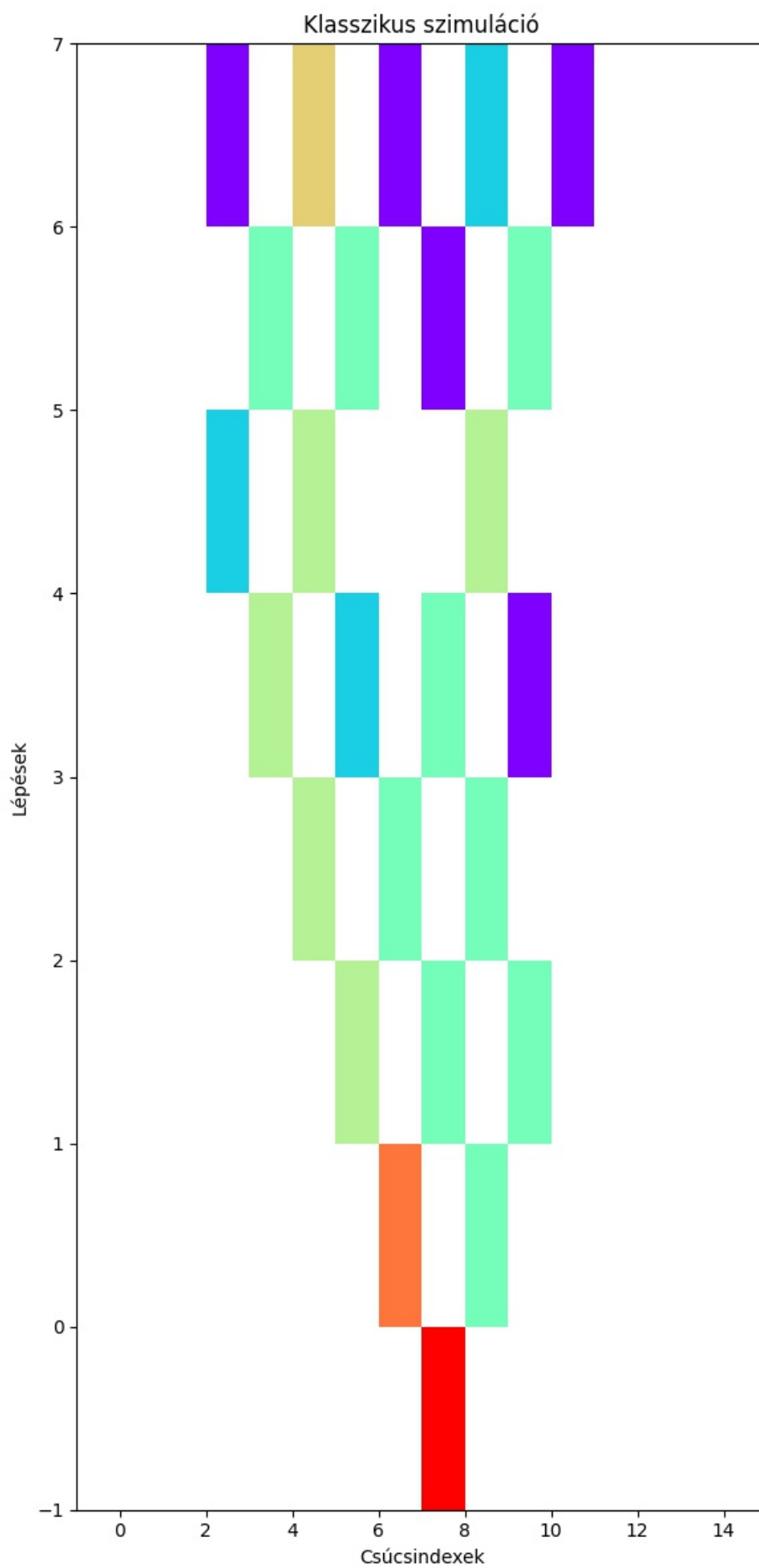


4. ábra. 0. részgráf szomszédossági mátrixa

2. Szimulációk

2.1. Klasszikus szimuláció

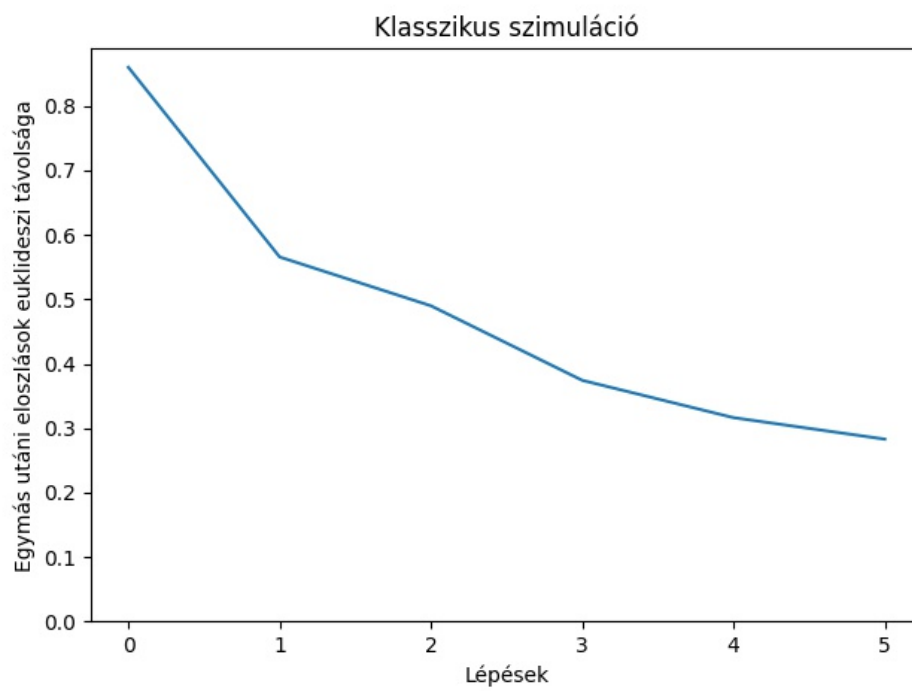
Kezdőcsúcs: 8 Bolyongók: 10 Lépésszám: 7



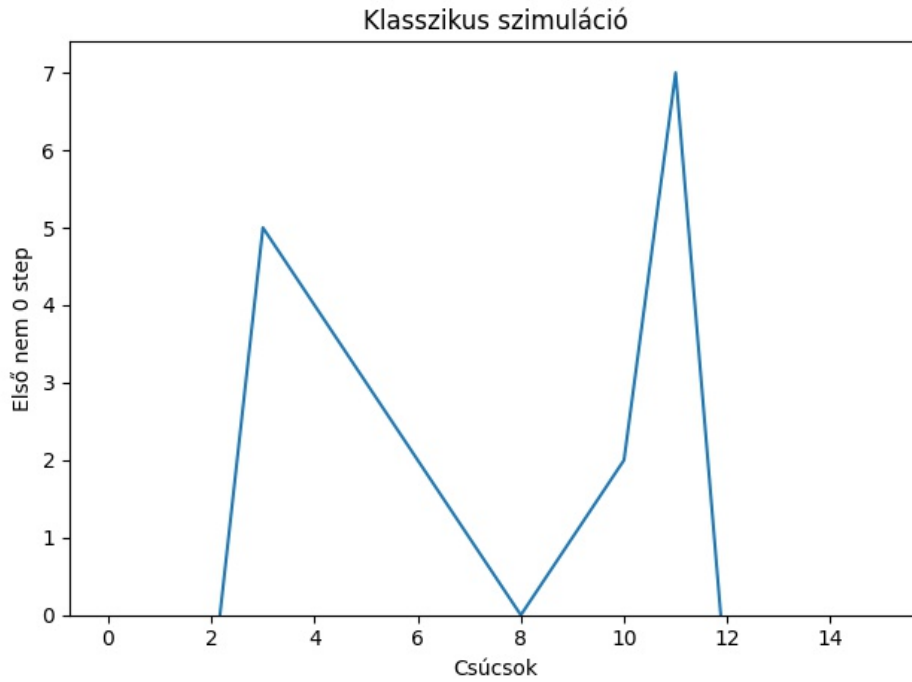
5. ábra. 0. szimuláció



6. ábra. 0. szimuláció levágva az elejét



7. ábra. 0. szimuláció mixing time



8. ábra. 0. szimuláció hitting time

2.2. Sajátértékek, sajátvektorok

1.0000000000: Bezárt szög: 0.0000000000 360 / bezárt szög: inf

- (0.2500000000, 0.3535533906, -0.0000000000, -0.3535533906, 0.2500000000, -0.0000000000, 0.3530991987, 0.0000000000, -0.3535162480, 0.3535533906, -0.3530306344, -0.0052377969, -0.0000000000, 0.3515580543, 0.0147186202, 0.0073640977)

0.9238795325: Bezárt szög: 0.0000000000 360 / bezárt szög: inf

- (0.2500000000, -0.3535533906, 0.3535533906, -0.3535533906, 0.2500000000, -0.3535533906, 0.0179152412, 0.3535533906, -0.0051246853, -0.3535533906, 0.0192190313, -0.0052377969, 0.3535533906, 0.0375091248, -0.0147186202, -0.0073640977)

0.9238795325: Bezárt szög: 0.0000000000 360 / bezárt szög: inf

- (-0.2500000000, 0.2500000000, -0.1352990250, -0.0000000000, 0.2500000000, 0.3266407412, -0.1516767380, 0.3266407412, -0.1400194030, -0.2500000000, -0.3335125824, -0.3535145902, 0.1352990250, -0.3104431702, 0.2601909045, 0.2447385608)

0.7071067812: Bezárt szög: 0.0000000000 360 / bezárt szög: inf

- (-0.2500000000, 0.2500000000, -0.1352990250, 0.0000000000, 0.2500000000, 0.3266407412, 0.1185736886, 0.3266407412, 0.1305502193, -0.2500000000, 0.3188029726, 0.3535145902, 0.1352990250, 0.3391514115, -0.2393756321, -0.2551529676)

0.7071067812: Bezárt szög: 0.0000000000 360 / bezárt szög: inf

- (-0.2500000000, 0.2500000000, 0.1352990250, -0.0000000000, 0.2500000000, -0.3266407412, 0.1516767380, -0.3266407412, 0.1400194030, -0.2500000000, 0.3335125824, -0.3535145902, -0.1352990250, 0.3104431702, 0.2601909045, 0.2447385608)

0.3826834324: Bezárt szög: 0.0000000000 360 / bezárt szög: inf

- (0.2500000000, 0.3535533906, -0.0000000000, -0.3535533906, 0.2500000000, -0.0000000000, -0.3530991987, 0.0000000000, 0.3535162480, 0.3535533906, 0.3530306344, -0.0052377969, 0.0000000000, -0.3515580543, 0.0147186202, 0.0073640977)

0.3826834324: Bezárt szög: 0.0000000000 360 / bezárt szög: \inf

- (-0.2500000000, -0.2500000000, -0.3266407412, 0.0000000000, 0.2500000000, -0.1352990250, 0.3330769886, -0.1352990250, 0.3285675581, 0.2500000000, -0.1528550446, 0.3535145902, 0.3266407412, -0.0998815302, 0.2393756321, 0.2551529676)

0.0000000000: Bezárt szög: 0.0000000000 360 / bezárt szög: \inf

- (-0.2500000000, -0.2500000000, 0.3266407412, -0.0000000000, 0.2500000000, 0.1352990250, 0.3193652566, 0.1352990250, 0.3246452938, 0.2500000000, -0.1173429052, -0.3535145902, -0.3266407412, -0.1691893556, -0.2601909045, -0.2447385608)

-0.0000000000: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

- (-0.2500000000, -0.2500000000, -0.3266407412, -0.0000000000, 0.2500000000, -0.1352990250, -0.3193652566, -0.1352990250, -0.3246452938, 0.2500000000, 0.1173429052, -0.3535145902, 0.3266407412, 0.1691893556, -0.2601909045, -0.2447385608)

-0.3826834324: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

- (0.2500000000, 0.0000000000, 0.2500000000, 0.3535533906, 0.2500000000, 0.2500000000, 0.2370108493, -0.2500000000, -0.2463500365, -0.0000000000, 0.2632202630, 0.0052377969, 0.2500000000, -0.2220661277, 0.3532468856, -0.3534766896)

-0.3826834324: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

- (0.2500000000, 0.0000000000, -0.2500000000, 0.3535533906, 0.2500000000, -0.2500000000, -0.2370108493, 0.2500000000, 0.2463500365, 0.0000000000, -0.2632202630, 0.0052377969, -0.2500000000, 0.2220661277, 0.3532468856, -0.3534766896)

-0.7071067812: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

- (-0.2500000000, 0.2500000000, 0.1352990250, -0.0000000000, 0.2500000000, -0.3266407412, -0.1185736886, -0.3266407412, -0.1305502193, -0.2500000000, -0.3188029726, 0.3535145902, -0.1352990250, -0.3391514115, -0.2393756321, -0.2551529676)

-0.7071067812: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

- (0.2500000000, 0.0000000000, 0.2500000000, 0.3535533906, 0.2500000000, 0.2500000000, -0.2623468264, -0.2500000000, 0.2535974359, 0.0000000000, -0.2360404482, 0.0052377969, 0.2500000000, 0.2751120407, -0.3532468856, 0.3534766896)

-0.9238795325: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

- (-0.2500000000, -0.2500000000, 0.3266407412, -0.0000000000, 0.2500000000, 0.1352990250, -0.3330769886, 0.1352990250, -0.3285675581, 0.2500000000, 0.1528550446, 0.3535145902, -0.3266407412, 0.0998815302, 0.2393756321, 0.2551529676)

-0.9238795325: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

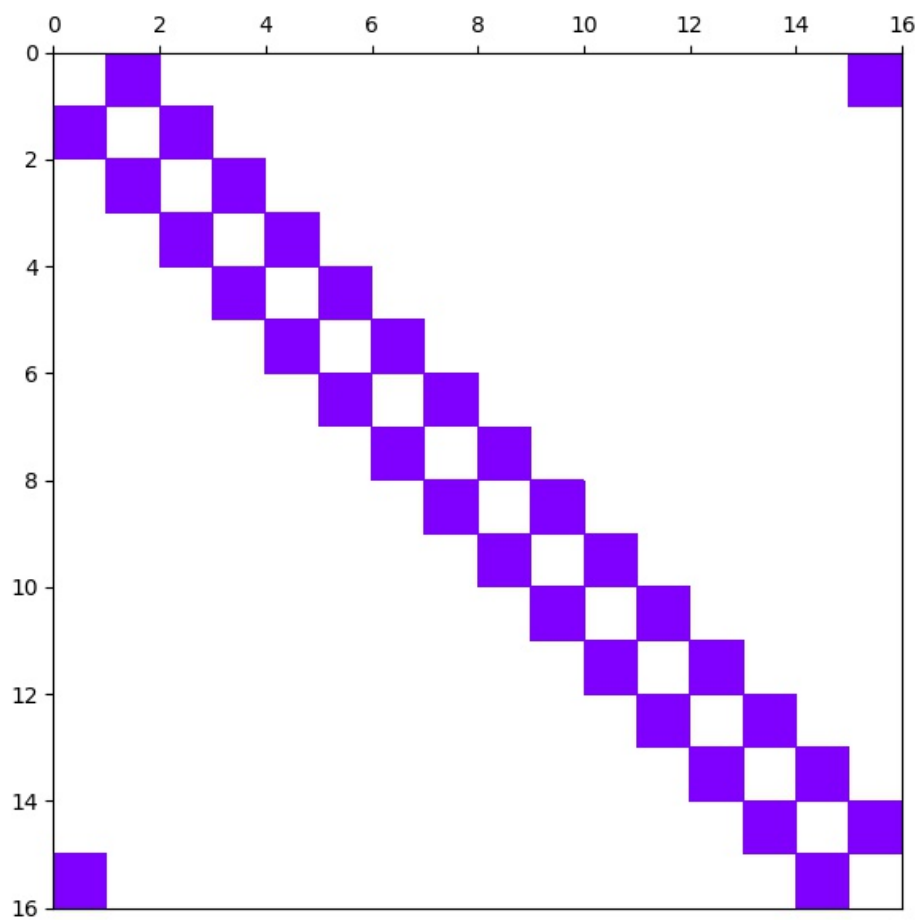
- (0.2500000000, 0.0000000000, -0.2500000000, 0.3535533906, 0.2500000000, -0.2500000000, 0.2623468264, 0.2500000000, -0.2535974359, -0.0000000000, 0.2360404482, 0.0052377969, -0.2500000000, -0.2751120407, -0.3532468856, 0.3534766896)

-1.0000000000: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

- (0.2500000000, -0.3535533906, -0.3535533906, -0.3535533906, 0.2500000000, 0.3535533906, -0.0179152412, -0.3535533906, 0.0051246853, -0.3535533906, -0.0192190313, -0.0052377969, -0.3535533906, -0.0375091248, -0.0147186202, -0.0073640977)

3. Szimulációs mátrix

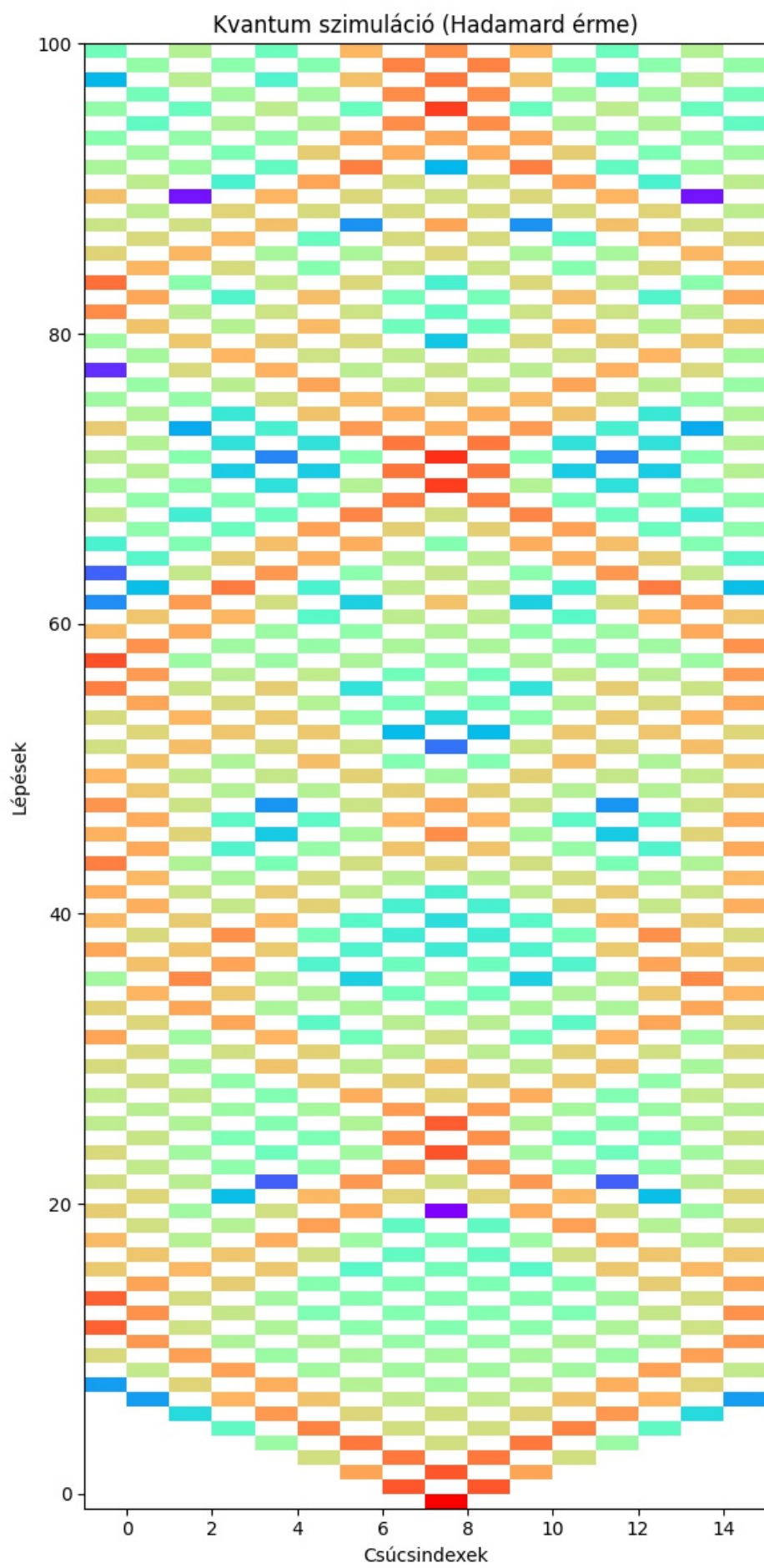
3.1. 0. szimuláció mátrixa



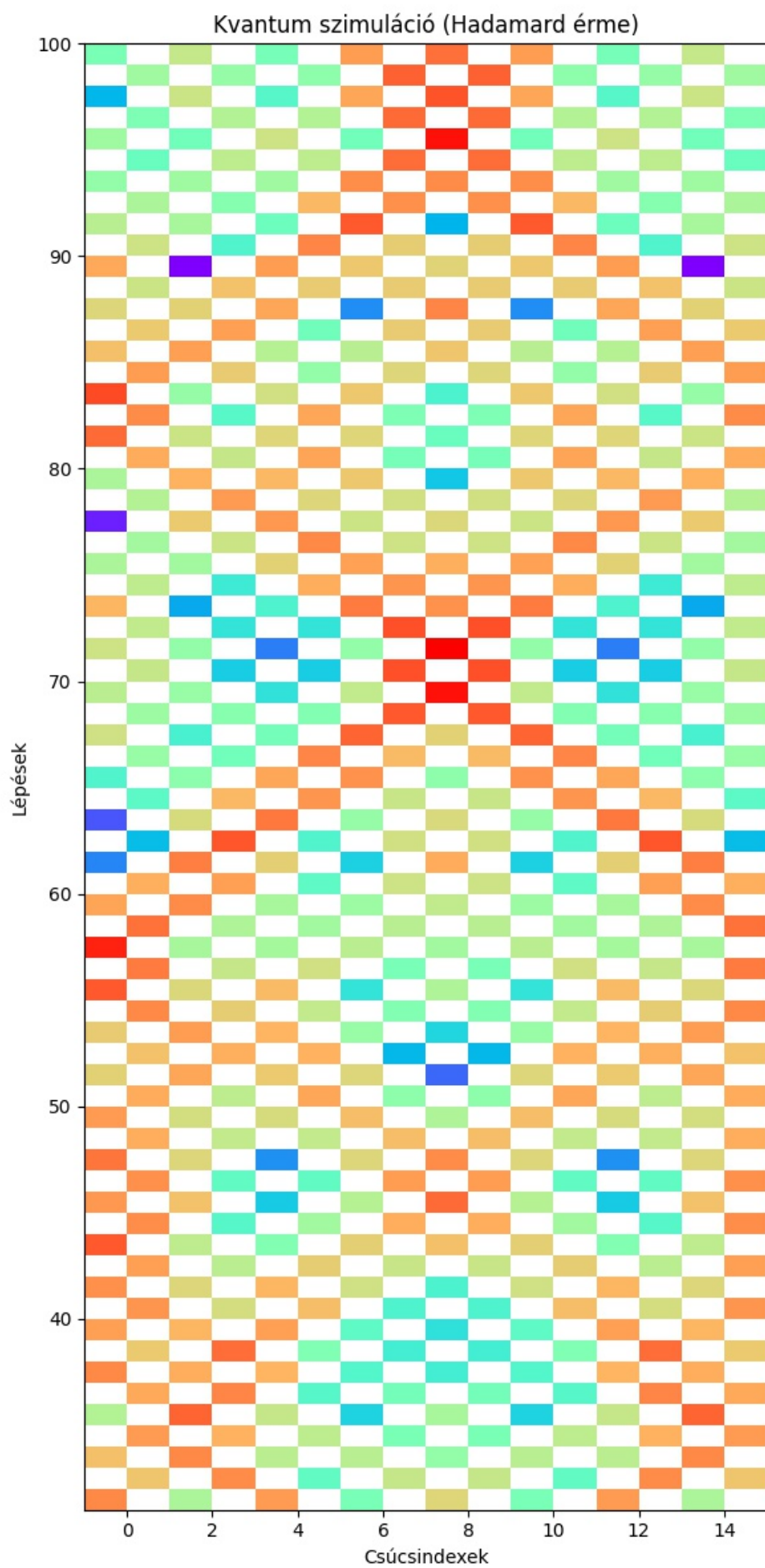
9. ábra. 0. szimuláció mátrixa

3.2. Kvantum szimuláció (Hadamard érme)

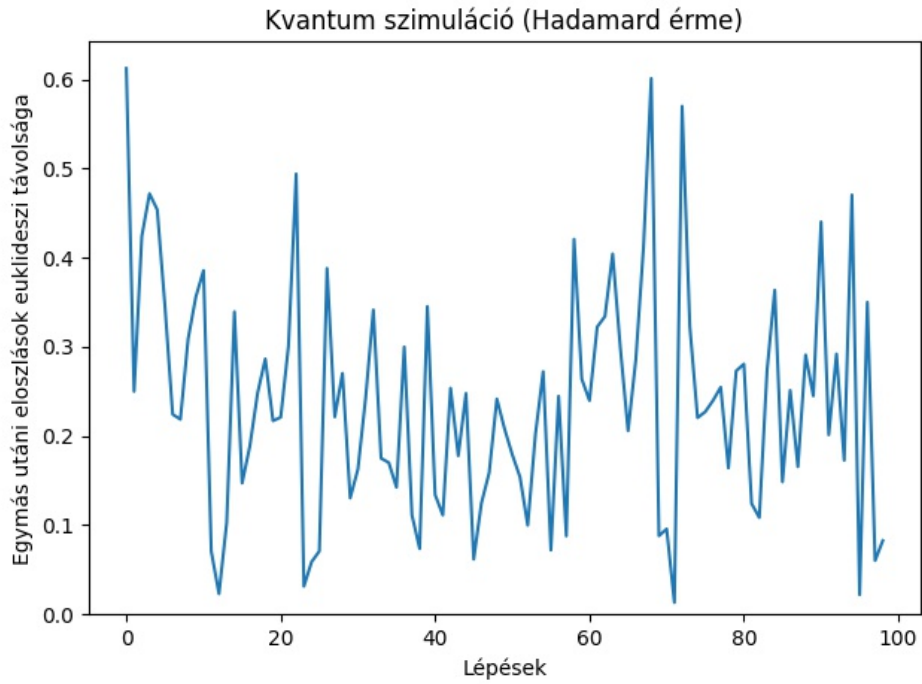
Kezdőcsúcs: 8 Bolyongók: 1 Lépésszám: 100



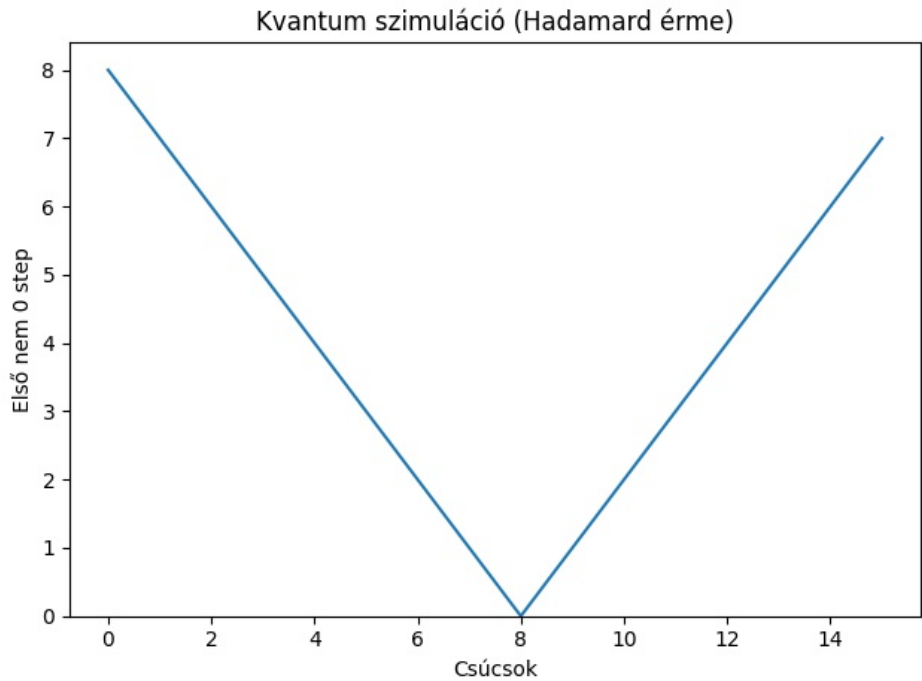
10. ábra. 1. szimuláció



11. ábra. 1. szimuláció levágva az elejét



12. ábra. 1. szimuláció mixing time



13. ábra. 1. szimuláció hitting time

3.3. Sajátértékek, sajátvektorok

$1.0000000000 + 0.0000000000j$: Bezárt szög: 0.0000000000 360 / bezárt szög: $17768559149047074.0000000000$

- $(0.1767766953 - 0.0000000000j, 0.0000000000 + 0.1767766953j, -0.0000000000 - 0.1767766953j, 0.1767766953 + 0.0000000000j, -0.1700157872 - 0.0088474664j, 0.0039990029 + 0.0006761332j, 0.1896551147 - 0.0580647652j, -0.2499619801 - 0.0000000000j, -0.1334020124 - 0.0003114142j, -0.1657592949 - 0.1249095938j, -0.1737176939 - 0.0000063067j, 0.1754037170 - 0.0001691260j, 0.1650833652 - 0.0000119234j, 0.1611250166 + 0.0708982298j, -0.1320351843 - 0.0031325753j, -0.1798210820 + 0.1288602251j, -0.0105175283 - 0.0077237287j, -0.2497089803 + 0.0000000000j, -0.1659676846 - 0.0037892933j, -0.1742706005 - 0.0669448544j, 0.1650994077 + 0.0000004395j, -0.0006573773 + 0.0002599227j, -0.2498576724 + 0.0000000000j, 0.1270070342 - 0.0019287652j, -0.1727572318 +$

0.0717544773j, -0.1693986492+0.0644890575j, 0.1728404579+0.0019964059j, -0.1878507125+0.0072949554j, 0.1364767853+0.0042206218j, 0.1781100870+0.1080663940j, -0.0013806214+0.0009468742j, -0.2492949285+0.0000000000j)

1.0000000000 - 0.0000000000j: Bezárt szög: -0.0000000000 360 / bezárt szög: -36629174873704808.0000000000

- (-0.0000000000+0.1767766953j, 0.1767766953-0.0000000000j, -0.1767766953+0.0000000000j, -0.0000000000+0.1767766953j, -0.0708578407-0.0976915585j, -0.1024390067+0.1790622565j, 0.0039509343+0.2251826481j, 0.0018590447-0.1473514523j, -0.0643371647-0.2299064047j, 0.0148165646+0.0856012476j, -0.1797836554+0.0000063067j, -0.1781389313-0.0001691260j, 0.0825438746-0.0956478282j, -0.0027061140-0.2020349342j, -0.0636504684+0.2309092160j, 0.0146737713-0.0591083429j, -0.1063822462-0.1704634289j, -0.0040995866+0.1352172576j, -0.0862834433+0.0980926072j, -0.0009744396+0.2123260600j, 0.0825500975+0.0956696275j, -0.1019115982-0.1763964516j, 0.0067050465+0.1426833350j, 0.0659596963-0.2313517811j, -0.0769897226-0.0775087221j, 0.0028077996-0.2106417991j, 0.1806051074-0.0019964059j, 0.1646380183+0.0072949554j, 0.0647844227+0.2282012199j, 0.0213245488-0.0720694570j, -0.1026064623+0.1759756295j, 0.0097763305-0.1557252295j)

0.9626924199 - 0.2705980501j: Bezárt szög: -15.6998574050 360 / bezárt szög: -22.9301445685

- (-0.1767766953+0.0000000000j, 0.0000000000+0.1767766953j, 0.0000000000+0.1767766953j, 0.1767766953+0.0000000000j, 0.1781690153-0.0542322434j, -0.0032651722-0.1448706326j, -0.1808475693-0.0000341032j, 0.2040280044+0.0025163337j, 0.1786565386+0.1188795793j, 0.1102720185-0.0021234145j, 0.2499632012+0.0000000000j, 0.0019340886+0.0002391802j, -0.1767590683-0.0631763465j, -0.1453885980-0.0029744828j, 0.1767915511-0.1176107300j, 0.1257665689-0.0158823735j, 0.0085875259+0.1504472154j, 0.2032318902+0.0069315581j, -0.1786079262-0.0660384885j, -0.1609767613-0.0031211910j, 0.1767757534-0.0631811093j, -0.0005367463-0.1441247643j, -0.1993461426+0.0014079061j, 0.1759938359-0.1218776267j, -0.1689083027-0.0517040769j, -0.1567000464-0.0012895742j, 0.2499237560-0.0000000000j, -0.0164138534+0.0103166249j, 0.1814757992+0.1197060043j, 0.1426481251-0.0136561023j, -0.0011272727+0.1451074505j, -0.2017317701-0.0106792257j)

0.9626924199 - 0.2705980501j: Bezárt szög: -15.6998574050 360 / bezárt szög: -22.9301445685

- (0.0000000000+0.1767766953j, -0.1767766953+0.0000000000j, -0.1767766953+0.0000000000j, 0.0000000000-0.1767766953j, 0.0043032847-0.2207795305j, 0.0011544877-0.1412148199j, 0.0758652718+0.1130131266j, -0.1021116487-0.1742334774j, -0.0028448153+0.0674048637j, -0.0676005850-0.2356152512j, 0.0042892824-0.0000089190j, 0.2499924041+0.0000000000j, -0.0000116154-0.2157062555j, 0.0926330013-0.0759222601j, -0.0041668886-0.0713479055j, -0.0697386513+0.2283692737j, -0.0097552639+0.1484246338j, -0.1025979028+0.1835024714j, 0.0025982537-0.2153153538j, 0.0874676675-0.0924468720j, 0.0000005137-0.2157135435j, 0.0000845801-0.1449079393j, 0.1066657602-0.1752681485j, 0.0038178758-0.0706482164j, 0.0388332433-0.2155057324j, 0.0842590141+0.0861644877j, 0.0054904363-0.0028233443j, 0.2492471718-0.0000000000j, -0.0027157234+0.0617324228j, -0.0584851110-0.2289431632j, 0.0012331775+0.1449240180j, 0.1035909150+0.1655989088j)

0.9626924199 + 0.2705980501j: Bezárt szög: 15.6998574050 360 / bezárt szög: 22.9301445685

- (-0.1767766953+0.0000000000j, -0.0000000000-0.1767766953j, 0.0000000000+0.1767766953j, -0.1767766953-0.0000000000j, 0.0025070404+0.0134082402j, -0.2037069164-0.0023088254j, -0.2490469209+0.0000000000j, 0.0035586333+0.1444076785j, -0.0036674736+0.0020483354j, -0.2489918541-0.0000000000j, -0.1737176939-0.0000063067j, 0.1754037170-0.0001691260j, 0.0000266897+0.0000073232j, -0.2487041561-0.0000000000j, -0.0000834413-0.0044867536j, -0.2492706060+0.0000000000j, -0.1993866018-0.0060722978j, -0.0098027034-0.1450953456j, 0.0028305382+0.0043472166j, 0.2499069014+0.0000000000j, 0.0000014262-0.0000001118j, -0.2042733957-0.0003795370j, 0.0019910798-0.1508481648j, -0.0014637678-0.0037209963j, -0.2364993352-0.0000000000j, 0.2497533032+0.0000000000j, 0.1728404579+0.0019964059j, -0.1878507125+0.0072949554j, 0.0092825846-0.0003302859j, 0.2490011246+0.0000000000j, -0.2035728903+0.0007971022j, 0.0151027058+0.1464996769j)

0.9626924199 + 0.2705980501j: Bezárt szög: 15.6998574050 360 / bezárt szög: 22.9301445685

- (0.1767766953+0.0000000000j, -0.0000000000-0.1767766953j, -0.0000000000-0.1767766953j, -0.1767766953-0.0000000000j, -0.0023414475+0.0766959741j, 0.2499670995+0.0000000000j, 0.2352357099-0.0073344779j, -0.0043584179-0.0001127525j, 0.0026937944+0.1681211134j, 0.1757883770-0.0134635220j, 0.2499632012+0.0000000000j, 0.0019340886+0.0002391802j, -0.0000249268+0.0893448461j, 0.2279232831-0.0079747295j, 0.0000612884-0.1663266894j, 0.1710061360-0.0046515551j, 0.2496592190+0.0000000000j, 0.0120058107+

0.0011338670j, 0.0026435779 + 0.0933925260j, 0.2313506408 - 0.0013206614j, 0.0000013320 + 0.0893515817j, -0.2499990006-0.0000000000j, 0.0024385648-0.0080744617j, -0.0010751514-0.1723609927j, -0.2282309103+0.0072213057j, 0.2325152474 + 0.0038985630j, 0.2499237560 - 0.0000000000j, -0.0164138534 + 0.0103166249j, 0.0068181471 + 0.1692898548j, 0.1978076994 + 0.0026650007j, -0.2499943946 + 0.0000000000j, 0.0184969615 + 0.0031465935j)

0.8660254038 + 0.5000000000j: Bezárt szög: 30.0000000000 360 / bezárt szög: 12.0000000000

- (0.0000000000+0.1767766953j, -0.1767766953+0.0000000000j, -0.1767766953-0.0000000000j, 0.0000000000-0.1767766953j, 0.0127304957 + 0.0887362748j, -0.0011544877 + 0.1412148199j, -0.0314244245 + 0.2227548749j, 0.1021116487 + 0.1742334774j, -0.0015154333 + 0.1723133065j, -0.1632022492 + 0.0818215353j, 0.0042892824 - 0.0000089190j, 0.2499924041 + 0.0000000000j, -0.0000031153 + 0.0893773452j, -0.0383698455 - 0.2377474089j, 0.0016646933 - 0.1724671237j, -0.1683639977 - 0.1000432862j, 0.0097552639 - 0.1484246338j, 0.1025979028 - 0.1835024714j, 0.0036291614 + 0.0861227872j, -0.0362302941 - 0.2322045327j, -0.0000000918 + 0.0893530190j, -0.0000845801 + 0.1449079393j, -0.1066657602 + 0.1752681485j, -0.0005062645 - 0.1667348726j, 0.0937517426 + 0.0977256831j, -0.0349012264 + 0.2346405279j, 0.0054904363 - 0.0028233443j, 0.2492471718 - 0.0000000000j, -0.0056932576 + 0.1732918147j, -0.1411955482 + 0.0979536058j, -0.0012331775 - 0.1449240180j, -0.1035909150 - 0.1655989088j)

0.8660254038 + 0.5000000000j: Bezárt szög: 30.0000000000 360 / bezárt szög: 12.0000000000

- (0.0000000000 - 0.1767766953j, -0.1767766953 + 0.0000000000j, 0.1767766953 + 0.0000000000j, 0.0000000000 - 0.1767766953j, 0.0708578407 - 0.0933651277j, -0.1024390067 - 0.1744446057j, -0.0096014138 - 0.2094762674j, 0.0016995886 - 0.1411877186j, 0.0643371647 - 0.2319681457j, 0.0045120309 - 0.0489413514j, -0.1797836554 + 0.0000063067j, -0.1781389313 - 0.0001691260j, -0.0825438746 - 0.0956938869j, 0.0120292646 + 0.2191123782j, 0.0636504684 + 0.2309561242j, 0.0182339175 + 0.0717740873j, -0.1063822462 + 0.1826080245j, -0.0057031168 + 0.1521960379j, 0.0862834433 + 0.0932079122j, -0.0034147037 - 0.2151541838j, -0.0825500975 + 0.0956720887j, -0.1019115982 + 0.1771555256j, -0.0047139667 + 0.1392346835j, -0.0659596963 - 0.2305288958j, -0.0714627745 + 0.0971716541j, -0.0043958055 + 0.2189903571j, 0.1806051074 - 0.0019964059j, 0.1646380183 + 0.0072949554j, -0.0647844227 + 0.2334196037j, 0.0192848456 + 0.0793260017j, -0.1026064623 - 0.1775698338j, 0.0053263753 - 0.1295665758j)

0.8660254038 - 0.5000000000j: Bezárt szög: -30.0000000000 360 / bezárt szög: -12.0000000000

- (-0.0000000000 - 0.1767766953j, -0.1767766953 - 0.0000000000j, 0.1767766953 - 0.0000000000j, 0.0000000000 - 0.1767766953j, 0.0293502786 + 0.2315218546j, 0.1024390067 + 0.1744446057j, 0.0040139488 - 0.1089800876j, -0.0016995886 + 0.1411877186j, -0.1553236556 - 0.0931686099j, 0.0164417556 + 0.1699997967j, -0.1797836554 + 0.0000063067j, -0.1781389313 - 0.0001691260j, -0.0341907924 + 0.2309603426j, -0.0082022415 + 0.0666081657j, -0.1536658240 + 0.0955988208j, 0.0025179289 - 0.1553659074j, 0.1063822462 - 0.1826080245j, 0.0057031168 - 0.1521960379j, 0.0357397724 - 0.2319318076j, 0.0047927694 - 0.0851202099j, -0.0341933700 - 0.2309693734j, 0.1019115982 - 0.1771555256j, 0.0047139667 - 0.1392346835j, 0.1592407933 - 0.0966519307j, -0.0374171354 - 0.2067855401j, 0.0004249772 + 0.0789021320j, 0.1806051074 - 0.0019964059j, 0.1646380183 + 0.0072949554j, 0.1564034319 + 0.0893056564j, 0.0108726206 - 0.1812476053j, 0.1026064623 + 0.1775698338j, -0.0053263753 + 0.1295665758j)

0.8660254038 - 0.5000000000j: Bezárt szög: -30.0000000000 360 / bezárt szög: -12.0000000000

- (-0.1767766953 + 0.0000000000j, 0.0000000000 - 0.1767766953j, 0.0000000000 + 0.1767766953j, -0.1767766953 - 0.0000000000j, 0.2379315917 - 0.0008960331j, 0.2037069164 + 0.0023088254j, -0.0191659145 + 0.0821159785j, -0.0035586333 - 0.1444076785j, -0.1849914616 - 0.0024887415j, 0.0145728112 - 0.1766488416j, -0.1737176939 - 0.0000063067j, 0.1754037170 - 0.0001691260j, -0.2334898237 + 0.0000095391j, 0.0208389723 - 0.1002652381j, -0.1866425070 + 0.0000566231j, -0.0050348070 + 0.1822358779j, 0.1993866018 + 0.0060722978j, 0.0098027034 + 0.1450953456j, 0.2318832123 + 0.0010116535j, -0.0034510547 + 0.0946743210j, -0.2334872477 - 0.0000005097j, 0.2042733957 + 0.0003795370j, -0.0019910798 + 0.1508481648j, 0.1810788381 + 0.0009933104j, -0.0078162850 + 0.1014761549j, -0.0101874360 - 0.0912012997j, 0.1728404579 + 0.0019964059j, -0.1878507125 + 0.0072949554j, 0.1837247362 + 0.0062991465j, 0.0028845760 + 0.1528289601j, 0.2035728903 - 0.0007971022j, -0.0151027058 - 0.1464996769j)

0.7571151198 - 0.6532814824j: Bezárt szög: -40.7894709409 360 / bezárt szög: -8.8258070452

- (-0.0000000000 - 0.1767766953j, 0.1767766953 - 0.0000000000j, 0.1767766953 - 0.0000000000j, -0.0000000000 + 0.1767766953j, -0.0120447016 + 0.0933686815j, 0.0021106845 - 0.1468702640j, -0.0314244245 - 0.2374238308j, -0.1021116487 + 0.1792661449j, -0.0030831614 + 0.1695063437j, -0.1632022492 - 0.1087485794j, 0.0042892824 -

0.0000089190j, 0.2499924041 + 0.0000000000j, 0.0000104162 + 0.0893280291j, -0.0383698455 + 0.2217979500j, -0.0017693192 - 0.1724032605j, -0.1683639977 + 0.0907401760j, 0.0011677380 + 0.1335506026j, -0.1025979028 - 0.1696393553j, -0.0044034474 + 0.0913529399j, -0.0362302941 + 0.2295632098j, -0.0000002984 + 0.0893503837j, 0.0004521663 - 0.1439782673j, 0.1066657602 + 0.1780839606j, 0.0023416628 - 0.1678551919j, 0.0937517426 - 0.0832830716j, -0.0349012264 - 0.2268434020j, 0.0054904363 - 0.0028233443j, 0.2492471718 - 0.0000000000j, -0.0059460475 + 0.1661872321j, -0.1411955482 - 0.0926236043j, -0.0001059048 + 0.1429715245j, 0.1035909150 - 0.1869573601j)

0.7571151198 + 0.6532814824j: Bezárt szög: 40.7894709409 360 / bezárt szög: 8.8258070452

- (0.1767766953 - 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.0000000000 - 0.1767766953j, 0.1767766953 + 0.0000000000j, 0.1664702966 - 0.0101146487j, -0.0039990029 - 0.0006761332j, 0.1625504185 + 0.0580647652j, 0.2499619801 + 0.0000000000j, 0.1282154215 + 0.0032081978j, -0.1863683622 + 0.1249095938j, -0.1737176939 - 0.0000063067j, 0.1754037170 - 0.0001691260j, -0.1651211101 + 0.0000015669j, 0.1905957739 - 0.0708982298j, 0.1319171805 - 0.0032126525j, -0.1727007897 - 0.1288602251j, 0.0105175283 + 0.0077237287j, 0.2497089803 + 0.0000000000j, 0.1619646990 - 0.0023585993j, -0.1791511288 + 0.0669448544j, -0.1651014247 - 0.0000002814j, 0.0006573773 - 0.0002599227j, 0.2498576724 - 0.0000000000j, -0.1290771145 - 0.0033335183j, -0.1617033355 - 0.0717544773j, -0.1838058594 - 0.0644890575j, 0.1728404579 + 0.0019964059j, -0.1878507125 + 0.0072949554j, -0.1233492283 - 0.0046877166j, 0.1740306805 - 0.1080663940j, 0.0013806214 - 0.0009468742j, 0.2492949285 + 0.0000000000j)

0.7571151198 - 0.6532814824j: Bezárt szög: -40.7894709409 360 / bezárt szög: -8.8258070452

- (-0.1767766953 - 0.0000000000j, 0.0000000000 + 0.1767766953j, -0.0000000000 + 0.1767766953j, 0.1767766953 + 0.0000000000j, -0.1748577085 - 0.0542322434j, 0.0032651722 + 0.1448706326j, -0.1518259620 + 0.0104066214j, -0.2040280044 - 0.0025163337j, -0.1748469380 + 0.1188795793j, 0.1383302884 - 0.0169168810j, 0.2499632012 - 0.0000000000j, 0.0019340886 + 0.0002391802j, 0.1767943201 - 0.0631763465j, -0.1769436001 + 0.0142524533j, -0.1767048762 - 0.1176107300j, 0.1160726279 + 0.0093040811j, -0.0085875259 - 0.1504472154j, -0.2032318902 - 0.0069315581j, 0.1748693425 - 0.0660384885j, -0.1662024526 + 0.0049888883j, -0.1767776372 - 0.0631811093j, 0.0005367463 + 0.1441247643j, 0.1993461426 - 0.0014079061j, -0.1775143297 - 0.1218776267j, -0.1538589460 + 0.0619165454j, -0.1721261700 - 0.0042238264j, 0.2499237560 - 0.0000000000j, -0.0164138534 + 0.0103166249j, -0.1718334832 + 0.1197060043j, 0.1370942062 + 0.0174249825j, 0.0011272727 - 0.1451074505j, 0.2017317701 + 0.0106792257j)

0.7571151198 + 0.6532814824j: Bezárt szög: 40.7894709409 360 / bezárt szög: 8.8258070452

- (-0.0000000000 + 0.1767766953j, 0.1767766953 - 0.0000000000j, -0.1767766953 - 0.0000000000j, -0.0000000000 + 0.1767766953j, -0.0293502786 + 0.2297297883j, 0.1024390067 - 0.1790622565j, 0.0096275152 + 0.0710615302j, -0.0018590447 + 0.1473514523j, 0.1553236556 - 0.0981460930j, -0.0084355893 - 0.1548147705j, -0.1797836554 + 0.0000063067j, -0.1781389313 - 0.0001691260j, 0.0341907924 + 0.2309794208j, -0.0143058352 - 0.1078367628j, 0.1536658240 + 0.0957120671j, 0.0111128821 + 0.1606122305j, 0.1063822462 + 0.1704634289j, 0.0040995866 - 0.1352172576j, -0.0357397724 - 0.2299085007j, 0.0058035599 + 0.0919479047j, 0.0341933700 - 0.2309703929j, 0.1019115982 + 0.1763964516j, -0.0067050465 - 0.1426833350j, -0.1592407933 - 0.0946653099j, -0.0240739023 + 0.2149301933j, 0.0034088081 - 0.0990573339j, 0.1806051074 - 0.0019964059j, 0.1646380183 + 0.0072949554j, -0.1564034319 + 0.1019039494j, 0.0059483413 + 0.1842533645j, 0.1026064623 - 0.1759756295j, -0.0097763305 + 0.1557252295j)

0.7071067812 - 0.7071067812j: Bezárt szög: -45.0000000000 360 / bezárt szög: -8.0000000000

- (0.1767766953 - 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.0000000000 - 0.1767766953j, 0.1767766953 + 0.0000000000j, -0.1664702966 + 0.0101146487j, -0.0039990029 - 0.0006761332j, -0.1625504185 - 0.0580647652j, 0.2499619801 + 0.0000000000j, -0.1282154215 - 0.0032081978j, 0.1863683622 - 0.1249095938j, -0.1737176939 - 0.0000063067j, 0.1754037170 - 0.0001691260j, 0.1651211101 - 0.0000015669j, -0.1905957739 + 0.0708982298j, -0.1319171805 + 0.0032126525j, 0.1727007897 + 0.1288602251j, 0.0105175283 + 0.0077237287j, 0.2497089803 - 0.0000000000j, -0.1619646990 + 0.0023585993j, 0.1791511288 - 0.0669448544j, 0.1651014247 + 0.0000002814j, 0.0006573773 - 0.0002599227j, 0.2498576724 + 0.0000000000j, 0.1290771145 + 0.0033335183j, 0.1617033355 + 0.0717544773j, 0.1838058594 + 0.0644890575j, 0.1728404579 + 0.0019964059j, -0.1878507125 + 0.0072949554j, 0.1233492283 + 0.0046877166j, -0.1740306805 + 0.1080663940j, 0.0013806214 - 0.0009468742j, 0.2492949285 + 0.0000000000j)

0.7071067812 + 0.7071067812j: Bezárt szög: 45.0000000000 360 / bezárt szög: 8.0000000000

- (-0.0000000000 - 0.1767766953j, 0.1767766953 + 0.0000000000j, 0.1767766953 - 0.0000000000j, -0.0000000000 + 0.1767766953j, 0.0059589381 + 0.2188607248j, -0.0021106845 + 0.1468702640j, -0.0758652718 + 0.0775991344j,

0.1021116487 - 0.1792661449j, -0.0009400150 - 0.0741814713j, 0.0676005850 - 0.2244617044j, 0.0042892824 - 0.0000089190j, 0.2499924041 - 0.0000000000j, 0.0000060105 + 0.2157266829j, -0.0926330013 - 0.1144276601j, -0.0041235511 + 0.0715020849j, 0.0697386513 + 0.2322227481j, -0.0011677380 - 0.1335506026j, 0.1025979028 + 0.1696393553j, 0.0007289618 + 0.2131489537j, -0.0874676675 - 0.0988235896j, -0.0000004282 + 0.2157146351j, -0.0004521663 + 0.1439782673j, -0.1066657602 - 0.1780839606j, 0.0030576289 + 0.0679435261j, -0.0388332433 - 0.2214880580j, -0.0842590141 + 0.1049884149j, 0.0054904363 - 0.0028233443j, 0.2492471718 + 0.0000000000j, 0.0021054347 - 0.0788844025j, 0.0584851110 - 0.2311509221j, 0.0001059048 - 0.1429715245j, -0.1035909150 + 0.1869573601j)

-0.7071067812 - 0.7071067812j: Bezárt szög: -135.0000000000 360 / bezárt szög: -2.6666666667

- (0.0000000000+0.1767766953j, 0.1767766953+0.0000000000j, -0.1767766953+0.0000000000j, -0.0000000000+0.1767766953j, 0.0293502786 - 0.2297297883j, 0.1024390067 - 0.1790622565j, -0.0096275152 - 0.0710615302j, -0.0018590447+0.1473514523j, -0.1553236556+0.0981460930j, 0.0084355893+0.1548147705j, -0.1797836554+0.0000063067j, -0.1781389313 - 0.0001691260j, -0.0341907924 - 0.2309794208j, 0.0143058352 + 0.1078367628j, -0.1536658240 - 0.0957120671j, -0.0111128821 - 0.1606122305j, 0.1063822462 + 0.1704634289j, 0.0040995866 - 0.1352172576j, 0.0357397724 + 0.2299085007j, -0.0058035599 - 0.0919479047j, -0.0341933700 + 0.2309703929j, 0.1019115982 + 0.1763964516j, -0.0067050465 - 0.1426833350j, 0.1592407933 + 0.0946653099j, 0.0240739023 - 0.2149301933j, -0.0034088081 + 0.0990573339j, 0.1806051074 - 0.0019964059j, 0.1646380183 + 0.0072949554j, 0.1564034319 - 0.1019039494j, -0.0059483413 - 0.1842533645j, 0.1026064623 - 0.1759756295j, -0.0097763305 + 0.1557252295j)

-0.7071067812 + 0.7071067812j: Bezárt szög: 135.0000000000 360 / bezárt szög: 2.6666666667

- (0.1767766953-0.0000000000j, 0.0000000000-0.1767766953j, -0.0000000000-0.1767766953j, -0.1767766953-0.0000000000j, -0.2496275903 + 0.0000000000j, -0.2499670995 + 0.0000000000j, 0.0205213753 + 0.0073827071j, 0.0043584179 + 0.0001127525j, 0.2499647054 + 0.0000000000j, -0.0198401929 + 0.0104605605j, 0.2499632012 + 0.0000000000j, 0.0019340886 + 0.0002391802j, 0.2499999985 + 0.0000000000j, -0.0223127559 + 0.0121812833j, 0.2499597209 + 0.0000000000j, 0.0068546515 - 0.0178095129j, -0.2496592190 - 0.0000000000j, -0.0120058107 - 0.0011338670j, 0.2499461737 + 0.0000000000j, -0.0036951218 + 0.0057346921j, -0.2500000000 - 0.0000000000j, 0.2499990006 + 0.0000000000j, -0.0024385648 + 0.0080744617j, 0.2499680211 + 0.0000000000j, -0.0106415021 - 0.0803419125j, -0.0109079166 - 0.0020748296j, 0.2499237560 - 0.0000000000j, -0.0164138534 + 0.0103166249j, 0.2498273895 + 0.0000000000j, 0.0039272137 - 0.0219776459j, 0.2499943946 - 0.0000000000j, -0.0184969615 - 0.0031465935j)

-0.7571151198 - 0.6532814824j: Bezárt szög: -139.2105290591 360 / bezárt szög: -2.5860112912

- (-0.1767766953+0.0000000000j, 0.0000000000+0.1767766953j, -0.0000000000+0.1767766953j, 0.1767766953+0.0000000000j, -0.1781690153 + 0.0542322434j, -0.0032651722 - 0.1448706326j, 0.1808475693 + 0.0000341032j, 0.2040280044 + 0.0025163337j, -0.1786565386 - 0.1188795793j, -0.1102720185 + 0.0021234145j, 0.2499632012 + 0.0000000000j, 0.0019340886 + 0.0002391802j, 0.1767590683 + 0.0631763465j, 0.1453885980 + 0.0029744828j, -0.1767915511 + 0.1176107300j, -0.1257665689 + 0.0158823735j, 0.0085875259 + 0.1504472154j, 0.2032318902 + 0.0069315581j, 0.1786079262 + 0.0660384885j, 0.1609767613 + 0.0031211910j, -0.1767757534 + 0.0631811093j, -0.0005367463 - 0.1441247643j, -0.1993461426 + 0.0014079061j, -0.1759938359 + 0.1218776267j, 0.1689083027 + 0.0517040769j, 0.1567000464 + 0.0012895742j, 0.2499237560 - 0.0000000000j, -0.0164138534 + 0.0103166249j, -0.1814757992 - 0.1197060043j, -0.1426481251 + 0.0136561023j, -0.0011272727 + 0.1451074505j, -0.2017317701 - 0.0106792257j)

-0.7571151198 + 0.6532814824j: Bezárt szög: 139.2105290591 360 / bezárt szög: 2.5860112912

- (-0.0000000000-0.1767766953j, -0.1767766953+0.0000000000j, 0.1767766953+0.0000000000j, 0.0000000000-0.1767766953j, -0.0708578407 + 0.0933651277j, -0.1024390067 - 0.1744446057j, 0.0096014138 + 0.2094762674j, 0.0016995886 - 0.1411877186j, -0.0643371647 + 0.2319681457j, -0.0045120309 + 0.0489413514j, -0.1797836554 + 0.0000063067j, -0.1781389313 - 0.0001691260j, 0.0825438746 + 0.0956938869j, -0.0120292646 - 0.2191123782j, -0.0636504684 - 0.2309561242j, -0.0182339175 - 0.0717740873j, -0.1063822462 + 0.1826080245j, -0.0057031168 + 0.1521960379j, -0.0862834433 - 0.0932079122j, 0.0034147037 + 0.2151541838j, 0.0825500975 - 0.0956720887j, -0.1019115982 + 0.1771555256j, -0.0047139667 + 0.1392346835j, 0.0659596963 + 0.2305288958j, 0.0714627745 - 0.0971716541j, 0.0043958055 - 0.2189903571j, 0.1806051074 - 0.0019964059j, 0.1646380183 + 0.0072949554j, 0.0647844227 - 0.2334196037j, -0.0192848456 - 0.0793260017j, -0.1026064623 - 0.1775698338j, 0.0053263753 - 0.1295665758j)

-0.7571151198 - 0.6532814824j: Bezárt szög: -139.2105290591 360 / bezárt szög: -2.5860112912

- (0.0000000000+0.1767766953j, -0.1767766953+0.0000000000j, -0.1767766953-0.0000000000j, 0.0000000000-0.1767766953j, -0.0043032847+0.2207795305j, 0.0011544877-0.1412148199j, -0.0758652718-0.1130131266j, -0.1021116487-0.1742334774j, 0.0028448153-0.0674048637j, 0.0676005850+0.2356152512j, 0.0042892824-0.0000089190j, 0.2499924041+0.0000000000j, 0.0000116154+0.2157062555j, -0.0926330013+0.0759222601j, 0.0041668886+0.0713479055j, 0.0697386513-0.2283692737j, -0.0097552639+0.1484246338j, -0.1025979028+0.1835024714j, -0.0025982537+0.2153153538j, -0.0874676675+0.0924468720j, -0.0000005137+0.2157135435j, 0.0000845801-0.1449079393j, 0.1066657602-0.1752681485j, -0.0038178758+0.0706482164j, -0.0388332433+0.2155057324j, -0.0842590141-0.0861644877j, 0.0054904363-0.0028233443j, 0.2492471718-0.0000000000j, 0.0027157234-0.0617324228j, 0.0584851110+0.2289431632j, 0.0012331775+0.1449240180j, 0.1035909150+0.1655989088j)

-0.7571151198 + 0.6532814824j: Bezárt szög: 139.2105290591 360 / bezárt szög: 2.5860112912

- (-0.1767766953+0.0000000000j, 0.0000000000+0.1767766953j, -0.0000000000+0.1767766953j, 0.1767766953+0.0000000000j, 0.1748577085+0.0542322434j, 0.0032651722+0.1448706326j, 0.1518259620-0.0104066214j, -0.2040280044-0.0025163337j, 0.1748469380-0.1188795793j, -0.1383302884+0.0169168810j, 0.2499632012-0.0000000000j, 0.0019340886+0.0002391802j, -0.1767943201+0.0631763465j, 0.1769436001-0.0142524533j, 0.1767048762+0.1176107300j, -0.1160726279-0.0093040811j, -0.0085875259-0.1504472154j, -0.2032318902-0.0069315581j, -0.1748693425+0.0660384885j, 0.1662024526-0.0049888883j, 0.1767776372+0.0631811093j, 0.0005367463+0.1441247643j, 0.1993461426-0.0014079061j, 0.1775143297+0.1218776267j, 0.1538589460-0.0619165454j, 0.1721261700+0.0042238264j, 0.2499237560-0.0000000000j, -0.0164138534+0.0103166249j, 0.1718334832-0.1197060043j, -0.1370942062-0.0174249825j, 0.0011272727-0.1451074505j, 0.2017317701+0.0106792257j)

-0.8660254038 + 0.5000000000j: Bezárt szög: 150.0000000000 360 / bezárt szög: 2.4000000000

- (-0.1767766953+0.0000000000j, -0.0000000000-0.1767766953j, -0.0000000000+0.1767766953j, -0.1767766953-0.0000000000j, -0.0025070404-0.0134082402j, -0.2037069164-0.0023088254j, 0.2490469209+0.0000000000j, 0.0035586333+0.1444076785j, 0.0036674736-0.0020483354j, 0.2489918541+0.0000000000j, -0.1737176939-0.0000063067j, 0.1754037170-0.0001691260j, -0.0000266897-0.0000073232j, 0.2487041561+0.0000000000j, 0.0000834413+0.0044867536j, 0.2492706060+0.0000000000j, -0.1993866018-0.0060722978j, -0.0098027034-0.1450953456j, -0.0028305382-0.0043472166j, -0.2499069014+0.0000000000j, -0.0000014262+0.0000001118j, -0.2042733957-0.0003795370j, 0.0019910798-0.1508481648j, 0.0014637678+0.0037209963j, 0.2364993352+0.0000000000j, -0.2497533032+0.0000000000j, 0.1728404579+0.0019964059j, -0.1878507125+0.0072949554j, -0.0092825846+0.0003302859j, -0.2490011246-0.0000000000j, -0.2035728903+0.0007971022j, 0.0151027058+0.1464996769j)

-0.8660254038 - 0.5000000000j: Bezárt szög: -150.0000000000 360 / bezárt szög: -2.4000000000

- (0.1767766953+0.0000000000j, -0.0000000000-0.1767766953j, 0.0000000000-0.1767766953j, -0.1767766953-0.0000000000j, 0.2496275903+0.0000000000j, -0.2499670995+0.0000000000j, -0.0205213753-0.0073827071j, 0.0043584179+0.0001127525j, -0.2499647054-0.0000000000j, 0.0198401929-0.0104605605j, 0.2499632012+0.0000000000j, 0.0019340886+0.0002391802j, -0.2499999985+0.0000000000j, 0.0223127559-0.0121812833j, -0.2499597209-0.0000000000j, -0.0068546515+0.0178095129j, -0.2496592190+0.0000000000j, -0.0120058107-0.0011338670j, -0.2499461737-0.0000000000j, 0.0036951218-0.0057346921j, 0.2500000000+0.0000000000j, 0.2499990006-0.0000000000j, -0.0024385648+0.0080744617j, -0.2499680211-0.0000000000j, 0.0106415021+0.0803419125j, 0.0109079166+0.0020748296j, 0.2499237560-0.0000000000j, -0.0164138534+0.0103166249j, -0.2498273895-0.0000000000j, -0.0039272137+0.0219776459j, 0.2499943946+0.0000000000j, -0.0184969615-0.0031465935j)

-0.8660254038 - 0.5000000000j: Bezárt szög: -150.0000000000 360 / bezárt szög: -2.4000000000

- (-0.0000000000-0.1767766953j, 0.1767766953-0.0000000000j, 0.1767766953+0.0000000000j, -0.0000000000+0.1767766953j, -0.0059589381-0.2188607248j, -0.0021106845+0.1468702640j, 0.0758652718-0.0775991344j, 0.1021116487-0.1792661449j, 0.0009400150+0.0741814713j, -0.0676005850+0.2244617044j, 0.0042892824-0.0000089190j, 0.2499924041+0.0000000000j, -0.0000060105-0.2157266829j, 0.0926330013+0.1144276601j, 0.0041235511-0.0715020849j, -0.0697386513-0.2322227481j, -0.0011677380-0.1335506026j, 0.1025979028+0.1696393553j, -0.0007289618-0.2131489537j, 0.0874676675+0.0988235896j, 0.0000004282-0.2157146351j, -0.0004521663+0.1439782673j, -0.1066657602-0.1780839606j, -0.0030576289-0.0679435261j, 0.0388332433+0.2214880580j, 0.0842590141-0.1049884149j, 0.0054904363-0.0028233443j, 0.2492471718-0.0000000000j, -0.0021054347+0.0788844025j, -0.0584851110+0.2311509221j, 0.0001059048-0.1429715245j, -0.1035909150+0.1869573601j)

-0.8660254038 + 0.5000000000j: Bezárt szög: 150.0000000000 360 / bezárt szög: 2.4000000000

- (0.0000000000+0.1767766953j, -0.1767766953+0.0000000000j, -0.1767766953-0.0000000000j, 0.0000000000-0.1767766953j, -0.0127304957-0.0887362748j, -0.0011544877+0.1412148199j, 0.0314244245-0.2227548749j, 0.1021116487+0.1742334774j, 0.0015154333-0.1723133065j, 0.1632022492-0.0818215353j, 0.0042892824-0.0000089190j, 0.2499924041+0.0000000000j, 0.0000031153-0.0893773452j, 0.0383698455+0.2377474089j, -0.0016646933+0.1724671237j, 0.1683639977+0.1000432862j, 0.0097552639-0.1484246338j, 0.1025979028-0.1835024714j, -0.0036291614-0.0861227872j, 0.0362302941+0.2322045327j, 0.0000000918-0.0893530190j, -0.0000845801+0.1449079393j, -0.1066657602+0.1752681485j, 0.0005062645+0.1667348726j, -0.0937517426-0.0977256831j, 0.0349012264-0.2346405279j, 0.0054904363-0.0028233443j, 0.2492471718+0.0000000000j, 0.0056932576-0.1732918147j, 0.1411955482-0.0979536058j, -0.0012331775-0.1449240180j, -0.1035909150-0.1655989088j)

-0.9626924199 + 0.2705980501j: Bezárt szög: 164.3001425950 360 / bezárt szög: 2.1911119145

- (0.1767766953-0.0000000000j, -0.0000000000-0.1767766953j, 0.0000000000-0.1767766953j, -0.1767766953-0.0000000000j, 0.0023414475-0.0766959741j, 0.2499670995+0.0000000000j, -0.2352357099+0.0073344779j, -0.0043584179-0.0001127525j, -0.0026937944-0.1681211134j, -0.1757883770+0.0134635220j, 0.2499632012+0.0000000000j, 0.0019340886+0.0002391802j, 0.0000249268-0.0893448461j, -0.2279232831+0.0079747295j, -0.0000612884+0.1663266894j, -0.1710061360+0.0046515551j, 0.2496592190+0.0000000000j, 0.0120058107+0.0011338670j, -0.0026435779-0.0933925260j, -0.2313506408+0.0013206614j, -0.0000013320-0.0893515817j, -0.2499990006-0.0000000000j, 0.0024385648-0.0080744617j, 0.0010751514+0.1723609927j, 0.2282309103-0.0072213057j, -0.2325152474-0.0038985630j, 0.2499237560+0.0000000000j, -0.0164138534+0.0103166249j, -0.0068181471-0.1692898548j, -0.1978076994-0.0026650007j, -0.2499943946+0.0000000000j, 0.0184969615+0.0031465935j)

-0.9626924199 + 0.2705980501j: Bezárt szög: 164.3001425950 360 / bezárt szög: 2.1911119145

- (-0.0000000000-0.1767766953j, 0.1767766953-0.0000000000j, 0.1767766953+0.0000000000j, 0.0000000000+0.1767766953j, 0.0120447016-0.0933686815j, 0.0021106845-0.1468702640j, 0.0314244245+0.2374238308j, -0.1021116487+0.1792661449j, 0.0030831614-0.1695063437j, 0.1632022492+0.1087485794j, 0.0042892824-0.0000089190j, 0.2499924041+0.0000000000j, -0.0000104162-0.0893280291j, 0.0383698455-0.2217979500j, 0.0017693192+0.1724032605j, 0.1683639977-0.0907401760j, 0.0011677380+0.1335506026j, -0.1025979028-0.1696393553j, 0.0044034474-0.0913529399j, 0.0362302941-0.2295632098j, 0.0000002984-0.0893503837j, 0.0004521663-0.1439782673j, 0.1066657602+0.1780839606j, -0.0023416628+0.1678551919j, -0.0937517426+0.0832830716j, 0.0349012264+0.2268434020j, 0.0054904363-0.0028233443j, 0.2492471718+0.0000000000j, 0.0059460475-0.1661872321j, 0.1411955482+0.0926236043j, -0.0001059048+0.1429715245j, 0.1035909150-0.1869573601j)

-0.9626924199 - 0.2705980501j: Bezárt szög: -164.3001425950 360 / bezárt szög: -2.1911119145

- (-0.0000000000-0.1767766953j, -0.1767766953+0.0000000000j, 0.1767766953+0.0000000000j, 0.0000000000-0.1767766953j, -0.0293502786-0.2315218546j, 0.1024390067+0.1744446057j, -0.0040139488+0.1089800876j, -0.0016995886+0.1411877186j, 0.1553236556+0.0931686099j, -0.0164417556-0.1699997967j, -0.1797836554+0.0000063067j, -0.1781389313-0.0001691260j, 0.0341907924-0.2309603426j, 0.0082022415-0.0666081657j, 0.1536658240-0.0955988208j, -0.0025179289+0.1553659074j, 0.1063822462-0.1826080245j, 0.0057031168-0.1521960379j, -0.0357397724+0.2319318076j, -0.0047927694+0.0851202099j, 0.0341933700+0.2309693734j, 0.1019115982-0.1771555256j, 0.0047139667-0.1392346835j, -0.1592407933+0.0966519307j, 0.0374171354+0.2067855401j, -0.0004249772-0.0789021320j, 0.1806051074-0.0019964059j, 0.1646380183+0.0072949554j, -0.1564034319-0.0893056564j, -0.0108726206+0.1812476053j, 0.1026064623+0.1775698338j, -0.0053263753+0.1295665758j)

-0.9626924199 - 0.2705980501j: Bezárt szög: -164.3001425950 360 / bezárt szög: -2.1911119145

- (-0.1767766953+0.0000000000j, -0.0000000000-0.1767766953j, -0.0000000000+0.1767766953j, -0.1767766953-0.0000000000j, -0.2379315917+0.0008960331j, 0.2037069164+0.0023088254j, 0.0191659145-0.0821159785j, -0.0035586333-0.1444076785j, 0.1849914616+0.0024887415j, -0.0145728112+0.1766488416j, -0.1737176939-0.0000063067j, 0.1754037170-0.0001691260j, 0.2334898237-0.0000095391j, -0.0208389723+0.1002652381j, 0.1866425070-0.0000566231j, 0.0050348070-0.1822358779j, 0.1993866018+0.0060722978j, 0.0098027034+0.1450953456j, -0.2318832123-0.0010116535j, 0.0034510547-0.0946743210j, 0.2334872477+0.0000005097j, 0.2042733957+0.0003795370j, -0.0019910798+0.1508481648j, -0.1810788381-0.0009933104j, 0.0078162850-0.1014761549j, 0.0101874360+0.0912012997j, 0.1728404579+0.0019964059j, -0.1878507125+0.0072949554j, -0.1837247362-0.0062991465j, -0.0028845760-0.1528289601j, 0.2035728903-0.0007971022j, -0.0151027058-0.1464996769j)

-1.0000000000 + 0.0000000000j: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

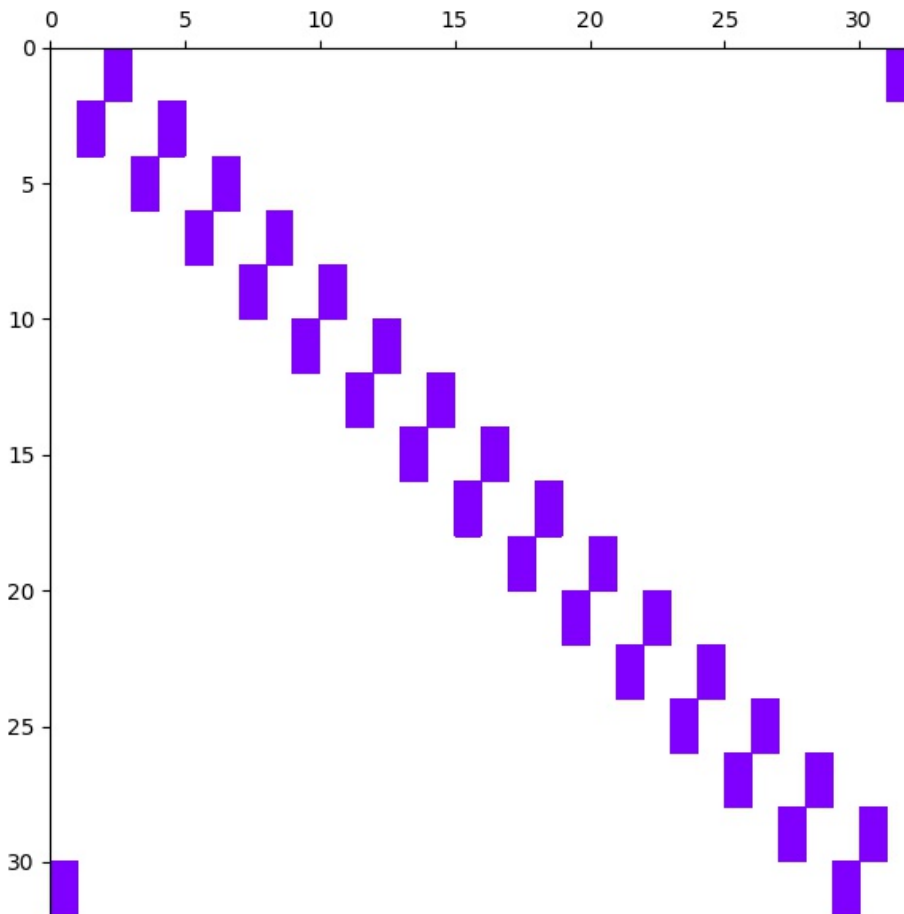
- (0.1767766953 - 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.0000000000 - 0.1767766953j, 0.1767766953 + 0.0000000000j, 0.1700157872 + 0.0088474664j, 0.0039990029 + 0.0006761332j, -0.1896551147 + 0.0580647652j, -0.2499619801 + 0.0000000000j, 0.1334020124 + 0.0003114142j, 0.1657592949 + 0.1249095938j, -0.1737176939 - 0.0000063067j, 0.1754037170 - 0.0001691260j, -0.1650833652 + 0.0000119234j, -0.1611250166 - 0.0708982298j, 0.1320351843 + 0.0031325753j, 0.1798210820 - 0.1288602251j, -0.0105175283 - 0.0077237287j, -0.2497089803 + 0.0000000000j, 0.1659676846 + 0.0037892933j, 0.1742706005 + 0.0669448544j, -0.1650994077 - 0.0000004395j, -0.0006573773 + 0.0002599227j, -0.2498576724 + 0.0000000000j, -0.1270070342 + 0.0019287652j, 0.1727572318 - 0.0717544773j, 0.1693986492 - 0.0644890575j, 0.1728404579 + 0.0019964059j, -0.1878507125 + 0.0072949554j, -0.1364767853 - 0.0042206218j, -0.1781100870 - 0.1080663940j, -0.0013806214 + 0.0009468742j, -0.2492949285 - 0.0000000000j)

-1.0000000000 + 0.0000000000j: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

- (0.0000000000 + 0.1767766953j, 0.1767766953 - 0.0000000000j, -0.1767766953 - 0.0000000000j, -0.0000000000 + 0.1767766953j, 0.0708578407 + 0.0976915585j, -0.1024390067 + 0.1790622565j, -0.0039509343 - 0.2251826481j, 0.0018590447 - 0.1473514523j, 0.0643371647 + 0.2299064047j, -0.0148165646 - 0.0856012476j, -0.1797836554 + 0.0000063067j, -0.1781389313 - 0.0001691260j, -0.0825438746 + 0.0956478282j, 0.0027061140 + 0.2020349342j, 0.0636504684 - 0.2309092160j, -0.0146737713 + 0.0591083429j, -0.1063822462 - 0.1704634289j, -0.0040995866 + 0.1352172576j, 0.0862834433 - 0.0980926072j, 0.0009744396 - 0.2123260600j, -0.0825500975 - 0.0956696275j, -0.1019115982 - 0.1763964516j, 0.0067050465 + 0.1426833350j, -0.0659596963 + 0.2313517811j, 0.0769897226 + 0.0775087221j, -0.0028077996 + 0.2106417991j, 0.1806051074 - 0.0019964059j, 0.1646380183 + 0.0072949554j, -0.0647844227 - 0.2282012199j, -0.0213245488 + 0.0720694570j, -0.1026064623 + 0.1759756295j, 0.0097763305 - 0.1557252295j)

4. Szimulációs mátrix

4.1. 1. szimuláció mátrixa



14. ábra. 1. szimuláció mátrixa

4.2. Érme sajátértékek, sajátvektorok

$1.0000000000 + 0.0000000000j$: Bezárt szög: 0.0000000000 360 / bezárt szög: inf

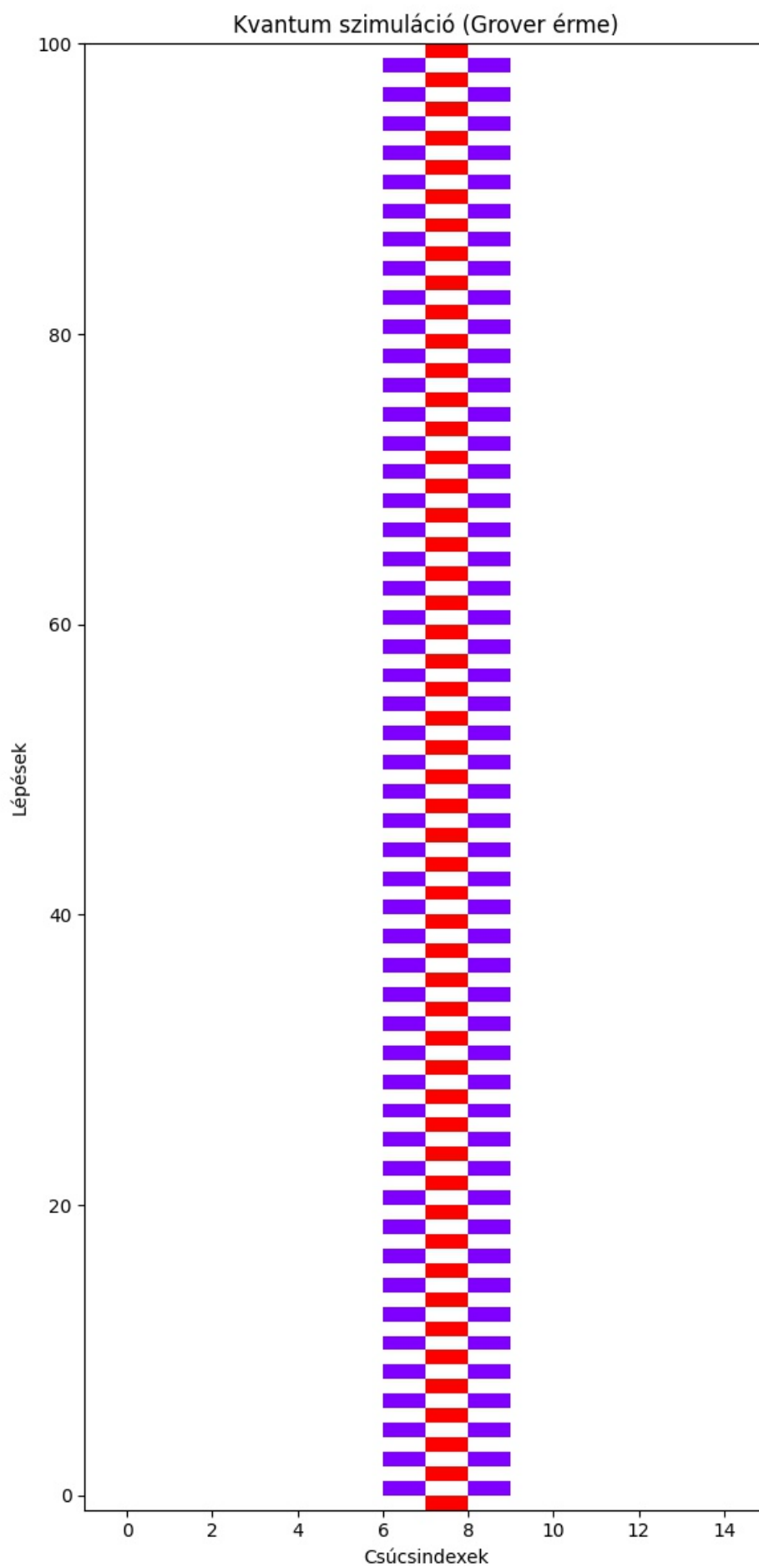
- $(0.9238795325 + 0.0000000000j, -0.3826834324 + 0.0000000000j)$

$-1.0000000000 + 0.0000000000j$: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

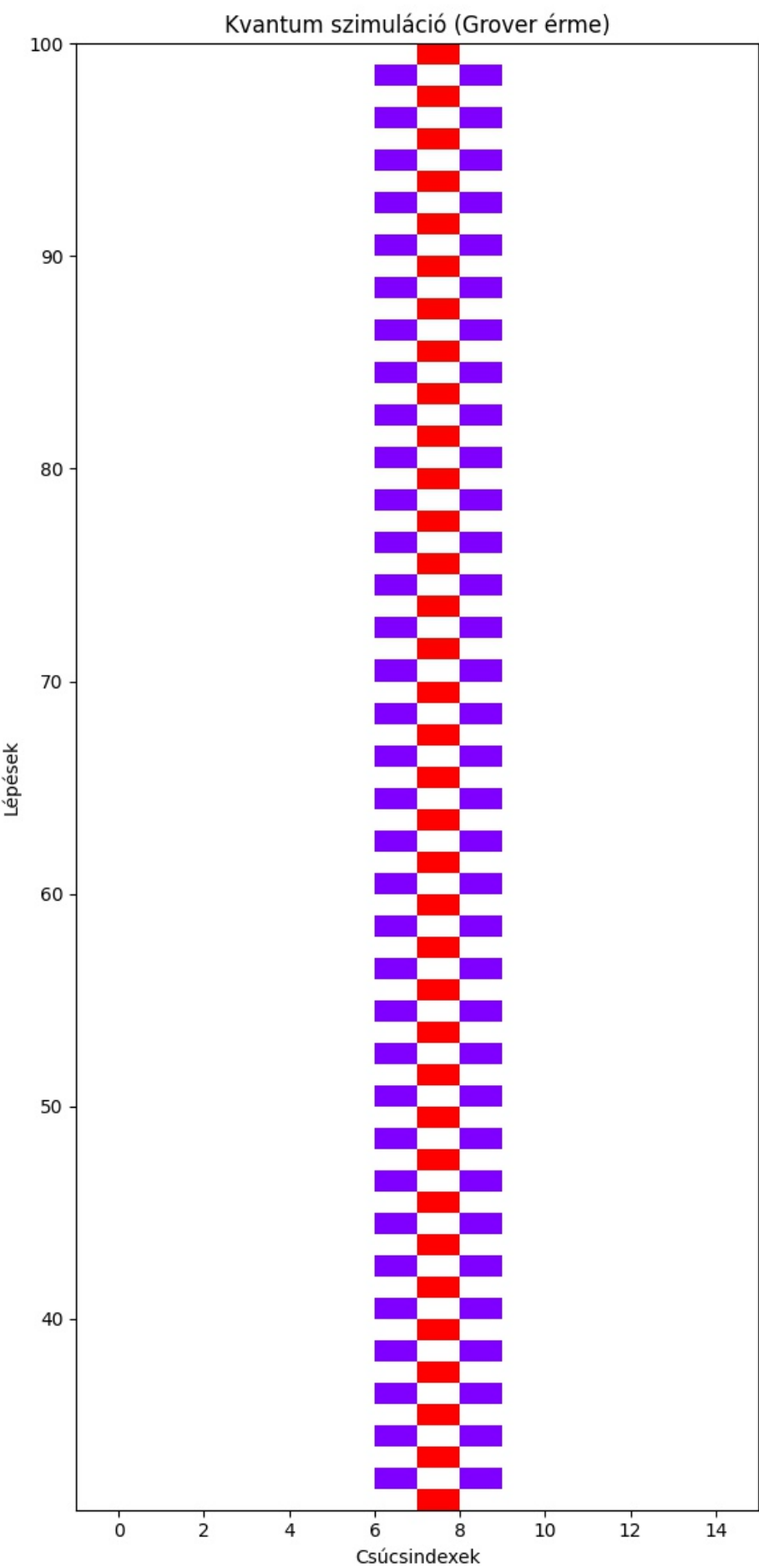
- $(0.3826834324 - 0.0000000000j, 0.9238795325 + 0.0000000000j)$

4.3. Kvantum szimuláció (Grover érme)

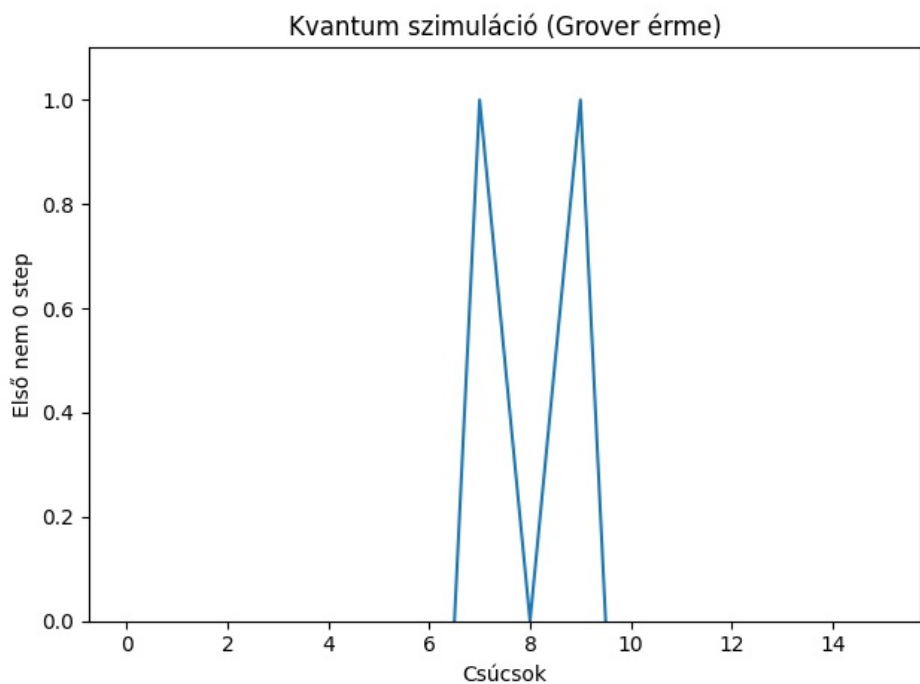
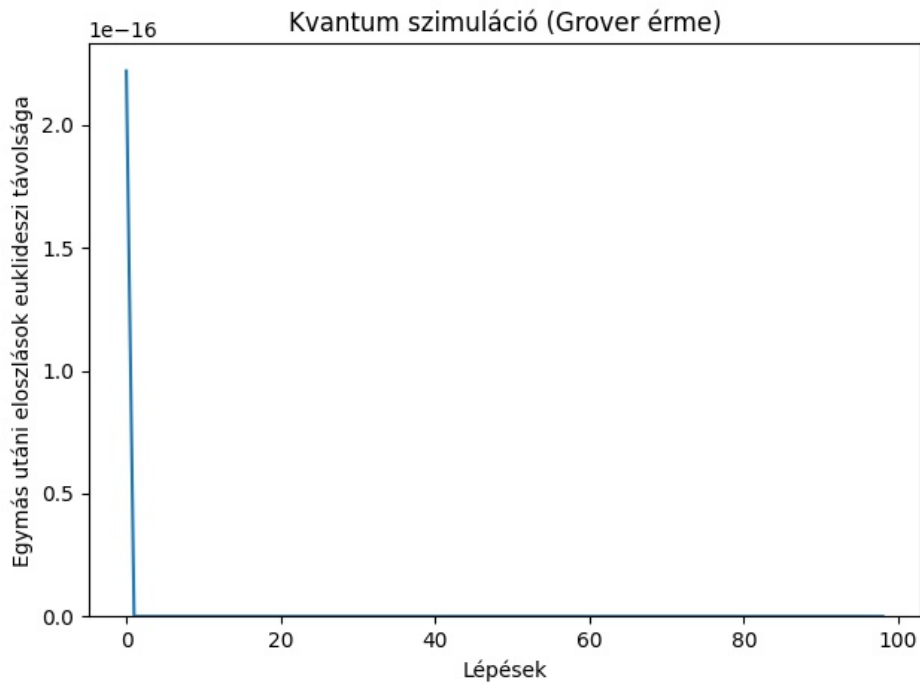
Kezdőcsúcs: 8 Bolyongók: 1 Lépésszám: 100



15. ábra. 2. szimuláció



16. ábra. 2. szimuláció levágva az elejét



$$(0.0000000000 + 0.0000000000j, 0.0000000000 + 0.0000000000j, 0.0000000000 + 0.0000000000j, 0.0000000000 + 0.0000000000j, \\ 0.0000000000j, 0.0000000000 + 0.0000000000j, 0.0000000000 + 0.0000000000j, 0.0000000000 + 0.0000000000j, \\ 0.0000000000 + 0.0000000000j, 0.0000000000 + 0.0000000000j, 0.0000000000 + 0.0000000000j, 0.0000000000 + \\ 0.0000000000j)$$

- [illegible]

[illegible][illegible]

- [illegible]

5.2. Érme sajátértékek, sajátvektorok

$1.0000000000 + 0.0000000000j$: Bezárt szög: 0.0000000000 360 / bezárt szög: inf

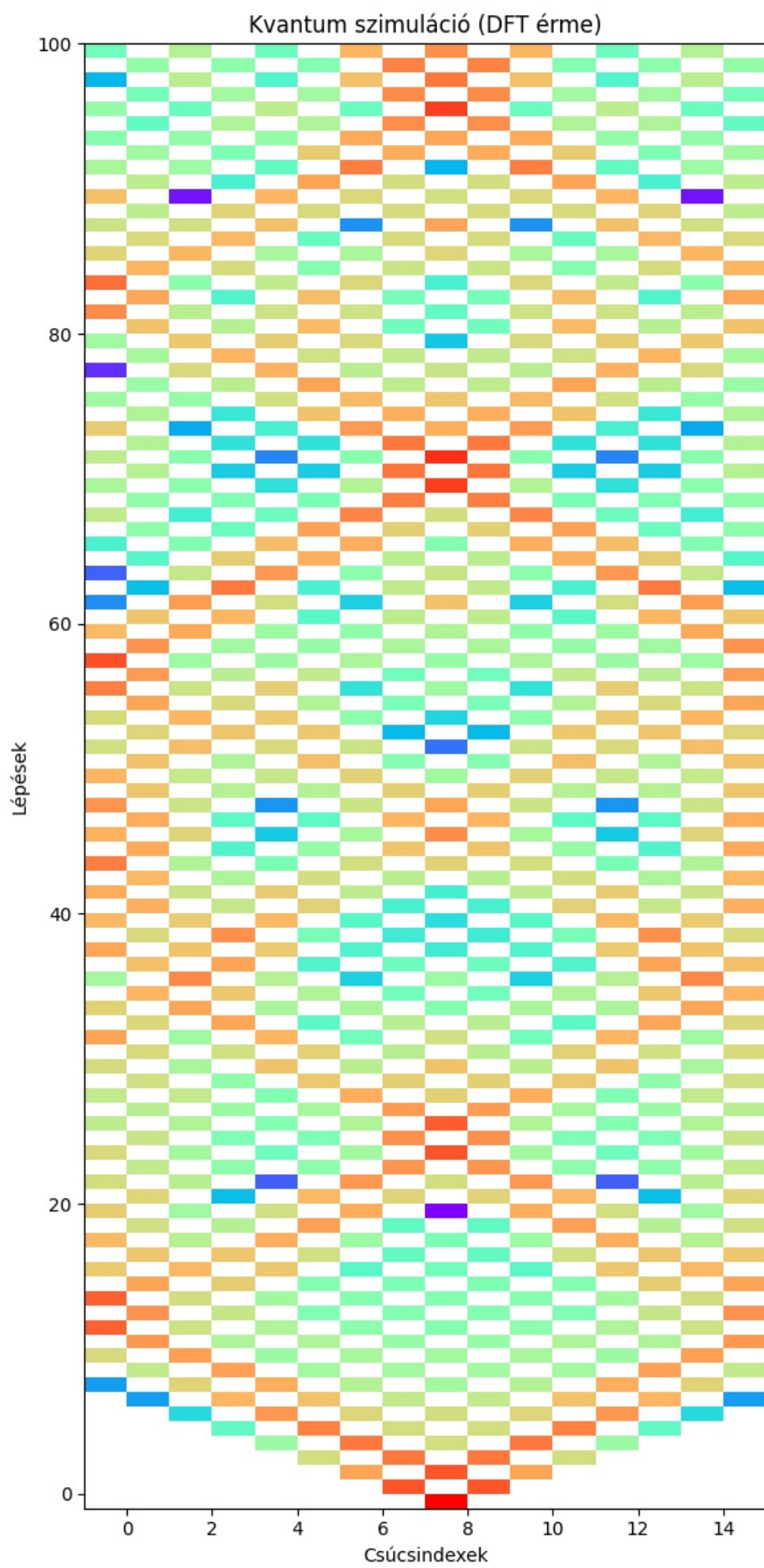
- $(0.7071067812 - 0.0000000000j, 0.7071067812 + 0.0000000000j)$

$-1.0000000000 + 0.0000000000j$: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

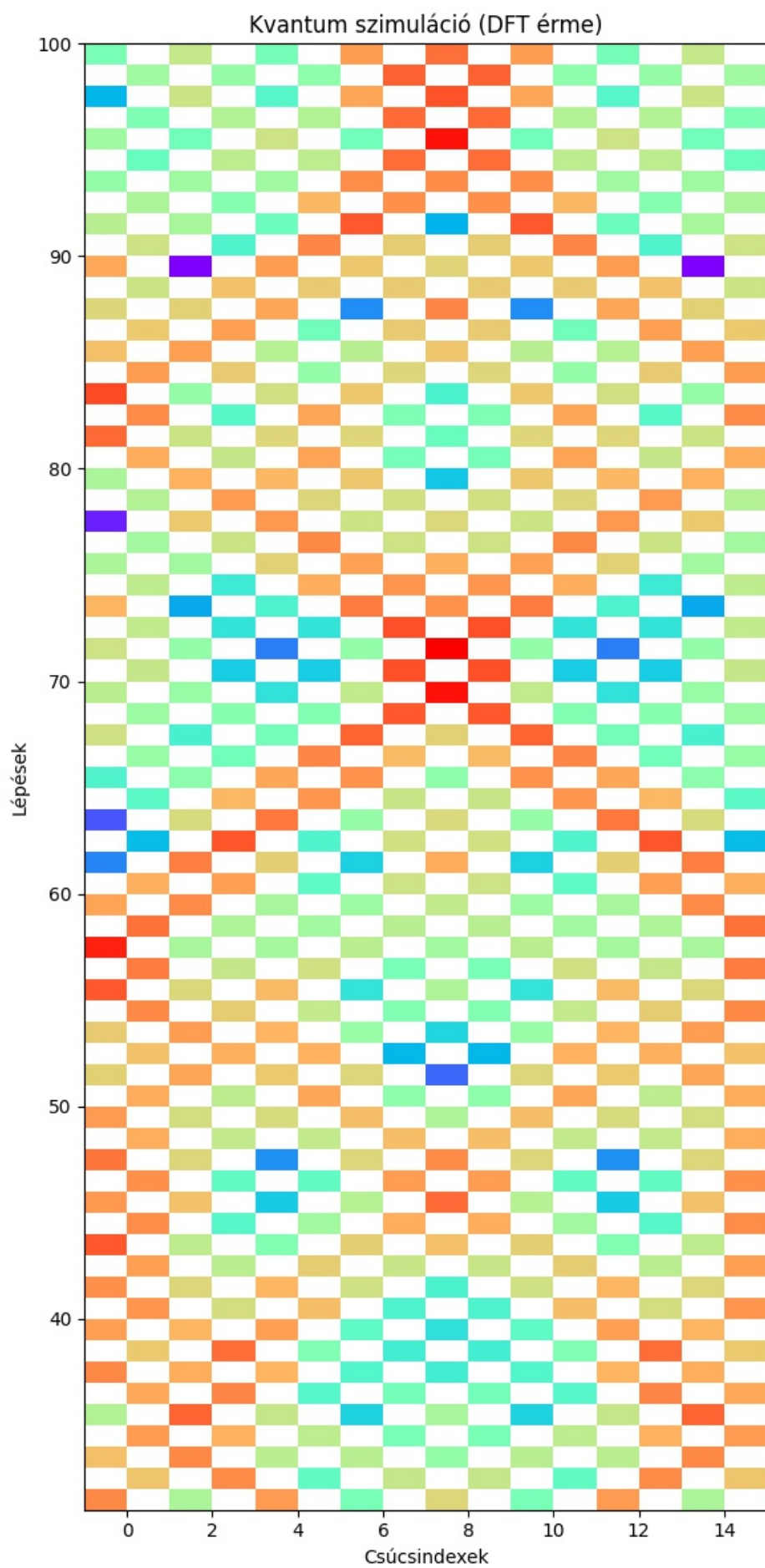
- $(0.7071067812 + 0.0000000000j, -0.7071067812 + 0.0000000000j)$

5.3. Kvantum szimuláció (DFT érme)

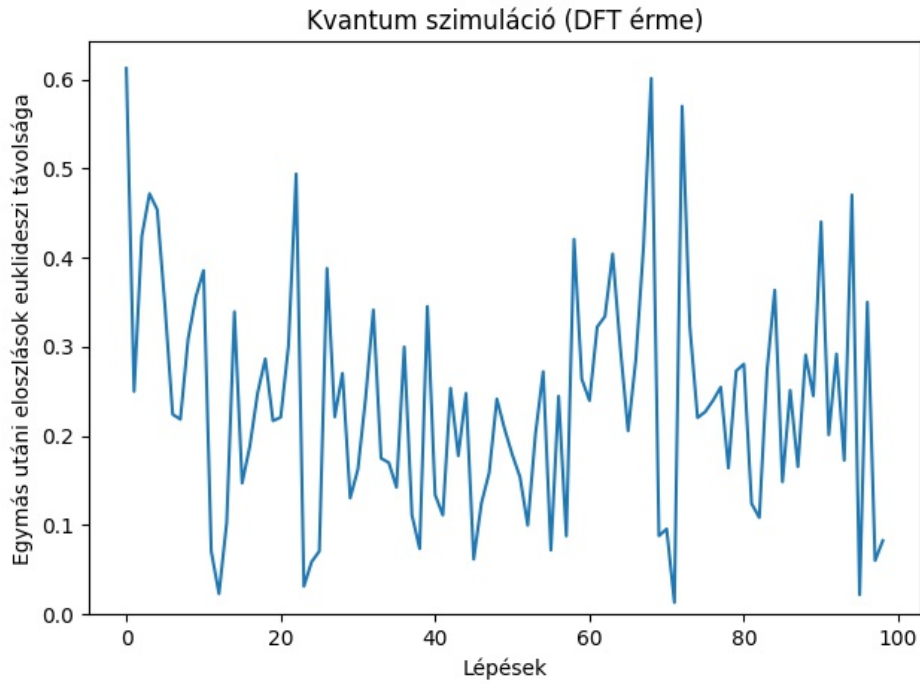
Kezdőcsúcs: 8 Bolyongók: 1 Lépésszám: 100



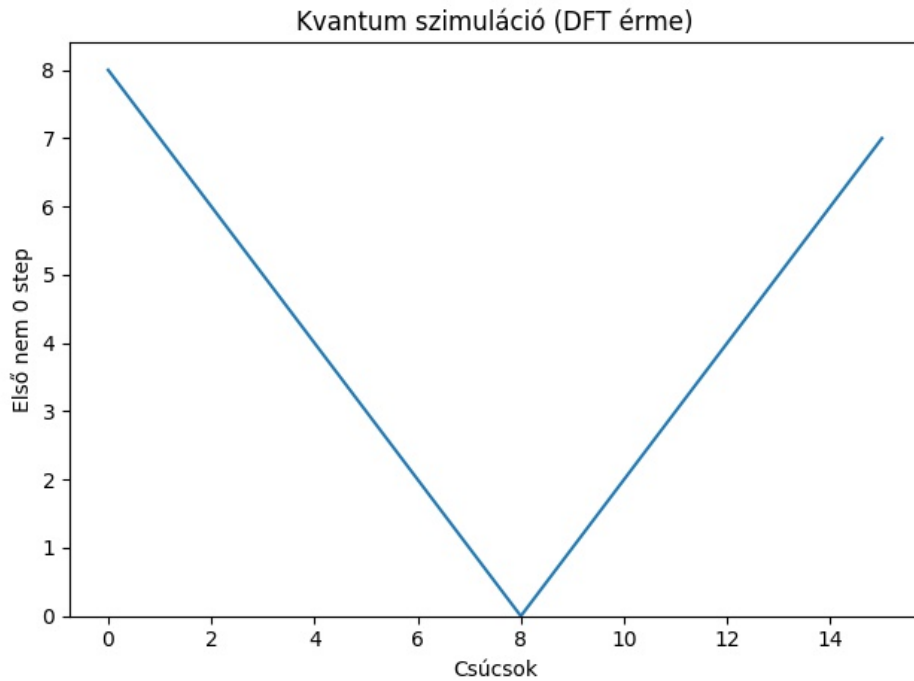
20. ábra. 3. szimuláció



21. ábra. 3. szimuláció levágva az elejét



22. ábra. 3. szimuláció mixing time



23. ábra. 3. szimuláció hitting time

5.4. Sajátértékek, sajátvektorok

1.0000000000 - 0.0000000000j: Bezárt szög: -0.0000000000 360 / bezárt szög: -52625808774208344.0000000000

- $(-0.1767766953 + 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.1767766953 - 0.0000000000j, 0.1767766953 - 0.0000000000j, -0.0131694902 - 0.0467374372j, 0.0909004109 - 0.1666745554j, 0.2337919930 + 0.0069394987j, -0.0044410924 + 0.1619714741j, 0.0650229994 + 0.2302055577j, -0.0029448458 + 0.0696116055j, 0.1723605011 - 0.0007797759j, 0.1776501368 + 0.0017785790j, 0.0853366114 - 0.0895940684j, 0.0032635996 - 0.2143787375j, 0.0451502940 - 0.2278272424j, 0.0212272262 + 0.0912637717j, 0.0964985487 + 0.1838433698j, 0.0080473019 + 0.1438570448j, 0.0825499111 + 0.0956708102j, 0.0825086825 - 0.0958332995j, -0.0117650414 - 0.2175617158j, 0.1020621177 + 0.1767780000j, -0.0061168826 - 0.2073020316j, 0.0970888647 - 0.1706648533j, 0.0072023125 +$

0.1362026447j, 0.0374264303 – 0.1350412159j, –0.0648887254 – 0.2309864915j, 0.0056526051 – 0.0759635901j, –0.0649239793+0.2309741885j, –0.1300100938+0.0366816583j, –0.1767730508+0.0000005746j, –0.1606489577+0.0029643484j)

1.0000000000 + 0.0000000000j: Bezárt szög: 0.0000000000 360 / bezárt szög: 55616272230918336.0000000000

- (0.0000000000+0.1767766953j, –0.1767766953+0.0000000000j, 0.0000000000+0.1767766953j, 0.0000000000 – 0.1767766953j, –0.1436378877 – 0.0571353495j, 0.0160277526 + 0.0184840527j, –0.0330624163 – 0.2233174853j, 0.2489398333 + 0.0000000000j, 0.1315468421 + 0.0015452039j, –0.1775347214 – 0.1185123857j, 0.1810818643 + 0.0007797759j, –0.1758809319 + 0.0017785790j, 0.1592515005 + 0.0005492190j, 0.1782554463 + 0.0674547053j, 0.1435116160 + 0.0522416188j, 0.1672450177 – 0.1047870307j, –0.0128562859 – 0.0092804006j, –0.2498052405 + 0.0000000000j, 0.1651004316 + 0.0000002459j, 0.1652456329 + 0.0000135884j, 0.1687306637 + 0.0488289615j, –0.0000022598 + 0.0000000781j, –0.1737884205 + 0.0756559131j, 0.0101612662 + 0.0083686166j, 0.2496552088 + 0.0000000000j, 0.2456220068 + 0.0000000000j, –0.1298592256 + 0.0001123078j, 0.1745185546 + 0.1161083537j, –0.1298301069 – 0.0000025872j, 0.1293604494 + 0.1092215233j, –0.1767803397 – 0.0000005746j, 0.1915054508 + 0.0029643484j)

0.9626924199 – 0.2705980501j: Bezárt szög: –15.6998574050 360 / bezárt szög: –22.9301445685

- (–0.0000000000 – 0.1767766953j, 0.1767766953 – 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.0000000000 – 0.1767766953j, –0.0455720391 – 0.0075079448j, 0.2488000220 + 0.0000000000j, –0.0053132840 + 0.2234259143j, –0.0220724021 + 0.0064628542j, 0.0019621509 + 0.1699132857j, –0.1854923704 – 0.0010086663j, 0.2499214933 – 0.0000000000j, 0.0012510167 + 0.0025152906j, 0.0065280986 – 0.0923676825j, –0.2310719417 – 0.0008369115j, –0.0123474365 – 0.1179834039j, 0.2007358508 + 0.0106103484j, 0.2494966735 + 0.0000000000j, 0.0045375401 – 0.0087608535j, –0.0000000518 – 0.0893513799j, 0.0001758566 + 0.0893067543j, 0.2400239540 – 0.0039146490j, –0.2500000000 – 0.0000000000j, –0.2259173055 – 0.0013246598j, –0.2496531893 – 0.0000000000j, –0.0128277454 – 0.0027795057j, –0.0300982215 + 0.0355517490j, –0.0000434847 + 0.1695624108j, –0.1884686366 + 0.0028203443j, –0.0000112520 – 0.1696545339j, 0.0002846694 – 0.1987012524j, 0.2499999999 – 0.0000000000j, –0.0218188355 – 0.0041922217j)

0.9626924199 + 0.2705980501j: Bezárt szög: 15.6998574050 360 / bezárt szög: 22.9301445685

- (0.1767766953 – 0.0000000000j, –0.0000000000 – 0.1767766953j, –0.1767766953 – 0.0000000000j, –0.1767766953 + 0.0000000000j, 0.0179210888 + 0.1970403032j, –0.0909004109 – 0.1851818100j, –0.1515865416 – 0.0069357631j, 0.0135809485 – 0.1307563837j, 0.1569794070 + 0.0938524989j, –0.0019917948 + 0.1708037851j, 0.1723605011 – 0.0007797759j, 0.1776501368 + 0.0017785790j, –0.0353475818 + 0.2283615684j, –0.0063326157 + 0.0905907804j, 0.1090024520 – 0.1038194524j, 0.0006717959 + 0.1914392608j, –0.0964985487 + 0.1689982096j, 0.0043424159 – 0.1374399940j, –0.0341932927 – 0.2309698633j, –0.0341762153 + 0.2310371108j, 0.0211699944 + 0.0817340081j, –0.1020621177 + 0.1767753906j, 0.0172151130 + 0.0830306270j, –0.0970888647 – 0.1823980729j, –0.0032714978 – 0.1543438162j, 0.0128513353 + 0.1776065290j, –0.1566552408 – 0.0957110193j, 0.0001827876 – 0.1757127987j, –0.1567403514 + 0.0956812533j, –0.2059312986 + 0.0149761638j, –0.1767730508 + 0.0000005746j, –0.1606489577 + 0.0029643484j)

0.9626924199 + 0.2705980501j: Bezárt szög: 15.6998574050 360 / bezárt szög: 22.9301445685

- (–0.0000000000 – 0.1767766953j, 0.1767766953 + 0.0000000000j, 0.0000000000 – 0.1767766953j, 0.0000000000 + 0.1767766953j, 0.2456966016 + 0.0000000000j, –0.2138161401 + 0.0092536273j, 0.0798197338 + 0.0786221338j, 0.0180220409 + 0.1384485814j, 0.1833639526 + 0.0018127910j, –0.0010917725 – 0.1676018232j, 0.1810818643 + 0.0007797759j, –0.1758809319 + 0.0017785790j, –0.2322054137 + 0.0024981952j, –0.0021869551 – 0.0953953591j, 0.2197665242 + 0.0114075439j, –0.0114845584 – 0.1481912400j, –0.2090712226 + 0.0074225801j, –0.0037048860 + 0.1513783298j, –0.2334873250 – 0.0000000198j, –0.2335043215 – 0.0000672974j, 0.0102294707 – 0.0690545796j, –0.2041241002 + 0.0000013047j, –0.0034615028 – 0.1069936183j, –0.2086725985 + 0.0058666098j, –0.0104738102 + 0.1418690451j, –0.0245750950 – 0.1127820503j, –0.1837078805 + 0.0000401746j, –0.0030527187 + 0.1642020085j, –0.1836228169 – 0.0000103955j, 0.1293604494 – 0.0792691958j, –0.1767803397 – 0.0000005746j, 0.1915054508 + 0.0029643484j)

0.9626924199 – 0.2705980501j: Bezárt szög: –15.6998574050 360 / bezárt szög: –22.9301445685

- (–0.1767766953 + 0.0000000000j, 0.0000000000 + 0.1767766953j, –0.1767766953 + 0.0000000000j, –0.1767766953 – 0.0000000000j, 0.0746509317 – 0.0547019019j, –0.0196135016 – 0.1398575100j, 0.2492283636 + 0.0000000000j, –0.0978979307 + 0.1887705515j, –0.0015322673 + 0.1683839116j, 0.1548438941 + 0.0946546293j, –0.0061669351 – 0.0011027697j, 0.2499842160 + 0.0000000000j, 0.0020696028 – 0.0824034483j, 0.0365062235 – 0.2317183929j, –0.0133682861 – 0.2094708745j, –0.1369108535 + 0.1055176500j, –0.0013136774 + 0.1569264462j, 0.1070406435 +

0.1792587295j, 0.0000003105 - 0.0893516796j, 0.0000186670 + 0.0895321959j, -0.0264260435 + 0.2259933859j, -0.0000009778 - 0.1443391334j, 0.0409446851 + 0.2289388658j, 0.0100658251 + 0.1403687092j, 0.1003165638 - 0.1691267889j, 0.0797489525 + 0.1563037703j, -0.0000082899 + 0.1697466065j, 0.1517028748 + 0.0984373304j, 0.0000121821 - 0.1696512246j, 0.1626804579 + 0.0990082016j, -0.0000051541 - 0.0000008125j, 0.2490107702 + 0.0000000000j)

0.8660254038 - 0.5000000000j: Bezárt szög: -30.0000000000 360 / bezárt szög: -12.0000000000

- (0.1767766953 + 0.0000000000j, 0.0000000000 - 0.1767766953j, 0.1767766953 - 0.0000000000j, 0.1767766953 + 0.0000000000j, -0.0746509317 - 0.1333461357j, -0.0065268964 + 0.1625241751j, -0.1890535876 - 0.0610913794j, 0.0978979307 + 0.1632835369j, -0.0018173337 + 0.1704284939j, 0.1548438941 - 0.0966719619j, -0.0061669351 - 0.0011027697j, 0.2499842160 - 0.0000000000j, -0.0039816386 - 0.0953188811j, 0.0365062235 + 0.2300445699j, 0.0344466786 - 0.1966047128j, -0.1369108535 - 0.0842969531j, -0.0118107909 - 0.1387449123j, -0.1070406435 + 0.1740192295j, -0.0000002953 - 0.0893517822j, -0.0000701742 + 0.0891842746j, -0.0264260435 - 0.2338226838j, 0.0000008674 + 0.1443359375j, 0.0409446851 - 0.2315881854j, 0.0017691860 - 0.1547389097j, -0.1003165638 - 0.1839389934j, -0.0797489525 + 0.1910582029j, 0.0000825229 + 0.1697012950j, 0.1517028748 - 0.0927966417j, 0.0000070262 - 0.1696394999j, -0.0162100829 + 0.1400187415j, -0.0000051541 - 0.0000008125j, 0.2490107702 - 0.0000000000j)

0.8660254038 + 0.5000000000j: Bezárt szög: 30.0000000000 360 / bezárt szög: 12.0000000000

- (-0.0000000000 - 0.1767766953j, 0.1767766953 + 0.0000000000j, -0.0000000000 + 0.1767766953j, -0.0000000000 - 0.1767766953j, 0.2321514439 - 0.0162877541j, -0.2488000220 + 0.0000000000j, -0.0053063816 + 0.0715300464j, 0.0220724021 - 0.0064628542j, 0.2499854496 + 0.0000000000j, -0.0014863967 + 0.0027696749j, 0.2499214933 + 0.0000000000j, 0.0012510167 + 0.0025152906j, -0.2498808074 - 0.0000000000j, -0.0023416220 - 0.0065077138j, 0.2414839545 + 0.0000000000j, -0.0156356828 + 0.0273711343j, -0.2494966735 + 0.0000000000j, -0.0045375401 + 0.0087608535j, 0.2500000000 + 0.0000000000j, 0.2499999245 + 0.0000000000j, -0.0109529242 - 0.0212927361j, 0.2500000000 + 0.0000000000j, 0.0037063089 + 0.0191821961j, 0.2496531893 + 0.0000000000j, 0.0128277454 + 0.0027795057j, 0.0300982215 - 0.0355517490j, 0.2499999648 + 0.0000000000j, 0.0041561321 + 0.0072865606j, 0.2499999994 + 0.0000000000j, 0.0398218547 + 0.0584171579j, 0.2499999999 + 0.0000000000j, -0.0218188355 - 0.0041922217j)

0.8660254038 - 0.5000000000j: Bezárt szög: -30.0000000000 360 / bezárt szög: -12.0000000000

- (0.0000000000 - 0.1767766953j, 0.1767766953 - 0.0000000000j, -0.0000000000 - 0.1767766953j, -0.0000000000 + 0.1767766953j, -0.0425619526 + 0.0808015862j, 0.2138161401 - 0.0092536273j, -0.0330624163 + 0.2371964827j, -0.0180220409 - 0.1384485814j, 0.0026713756 + 0.0003724573j, -0.2499802383 - 0.0000000000j, 0.1810818643 + 0.0007797759j, -0.1758809319 + 0.0017785790j, 0.0069897819 - 0.0032749082j, -0.2499043146 + 0.0000000000j, -0.0168104505 + 0.0624732620j, 0.2480047307 + 0.0000000000j, 0.2090712226 - 0.0074225801j, 0.0037048860 - 0.1513783298j, 0.0000000555 - 0.0000003279j, -0.0001882936 + 0.0000480805j, -0.2488506637 - 0.0000000000j, 0.2041241002 - 0.0000013047j, 0.2492354442 + 0.0000000000j, 0.2086725985 - 0.0058666098j, 0.0104738102 - 0.1418690451j, 0.0245750950 + 0.1127820503j, 0.0000592024 + 0.0001186526j, 0.2498592256 + 0.0000000000j, 0.0000153190 + 0.0000067366j, 0.0535828526 + 0.2337317553j, -0.1767803397 - 0.0000005746j, 0.1915054508 + 0.0029643484j)

0.8660254038 + 0.5000000000j: Bezárt szög: 30.0000000000 360 / bezárt szög: 12.0000000000

- (-0.1767766953 + 0.0000000000j, -0.0000000000 + 0.1767766953j, -0.1767766953 + 0.0000000000j, -0.1767766953 + 0.0000000000j, -0.0309214283 - 0.2432818155j, 0.0196135016 + 0.1398575100j, -0.0181337840 - 0.0863962572j, 0.0978979307 - 0.1887705515j, 0.0010378307 - 0.0726383759j, -0.0641384410 + 0.2313694289j, -0.0061669351 - 0.0011027697j, 0.2499842160 + 0.0000000000j, -0.0035612845 - 0.2172047028j, 0.0881338198 + 0.0936137578j, -0.0620832461 + 0.0685701767j, 0.0567103324 + 0.2247315444j, 0.0013136774 - 0.1569264462j, -0.1070406435 - 0.1792587295j, -0.0000001071 - 0.2157141819j, -0.0000805743 + 0.2156578066j, -0.0637981127 - 0.1046818248j, 0.0000009778 + 0.1443391334j, 0.0988492141 - 0.0985762869j, -0.0100658251 - 0.1403687092j, -0.1003165638 + 0.1691267889j, -0.0797489525 - 0.1563037703j, -0.0001249949 - 0.0702472664j, -0.0628373882 + 0.2296715996j, 0.0000022457 + 0.0702552569j, 0.1856049769 - 0.0990082016j, -0.0000051541 - 0.0000008125j, 0.2490107702 + 0.0000000000j)

0.7571151198 + 0.6532814824j: Bezárt szög: 40.7894709409 360 / bezárt szög: 8.8258070452

- (0.0000000000 + 0.1767766953j, -0.1767766953 + 0.0000000000j, 0.0000000000 - 0.1767766953j, 0.0000000000 + 0.1767766953j, -0.1319315624 + 0.0168261001j, 0.0130866052 - 0.1285525939j, 0.0075092376 - 0.2085653600j, 0.2069898533 + 0.0127435073j, 0.1781538568 + 0.1201468365j, -0.1322139541 + 0.0012452211j, 0.2499214933 +

0.0000000000j, 0.0012510167 + 0.0025152906j, 0.1720763506 + 0.0653138147j, 0.1650483137 + 0.0051934343j, 0.1620239857 - 0.0834268649j, 0.1308855840 + 0.0268569640j, -0.0104971135 + 0.1364695563j, -0.1989070436 + 0.0026197500j, -0.1767766586 + 0.0631809666j, -0.1769009913 - 0.0631494116j, -0.1619776786 + 0.0178243129j, 0.0000018451 - 0.1443376310j, 0.1571269026 - 0.0126271850j, -0.0082966391 + 0.1373043892j, -0.2054473728 + 0.0074061022j, -0.2210753406 - 0.0173772163j, 0.1767459221 + 0.1198987305j, -0.1303286218 + 0.0071466610j, 0.1767687386 - 0.1199638714j, 0.0283595952 - 0.0991958345j, 0.2499999999 + 0.0000000000j, -0.0218188355 - 0.0041922217j)

0.7571151198 - 0.6532814824j: Bezárt szög: -40.7894709409 360 / bezárt szög: -8.8258070452

- (-0.0000000000 + 0.1767766953j, -0.1767766953 + 0.0000000000j, -0.0000000000 - 0.1767766953j, -0.0000000000 + 0.1767766953j, 0.1963801582 - 0.0062082627j, -0.0130866052 + 0.1285525939j, 0.0000048808 - 0.1074065983j, -0.2069898533 - 0.0127435073j, -0.1753789564 + 0.1201468365j, -0.1301118718 - 0.0026716907j, 0.2499214933 + 0.0000000000j, 0.0012510167 + 0.0025152906j, -0.1813084762 + 0.0653138147j, 0.1617367602 - 0.0040098627j, -0.1794858979 - 0.0834268649j, 0.1529977787 - 0.0118516653j, 0.0104971135 - 0.1364695563j, 0.1989070436 - 0.0026197500j, 0.1767767320 + 0.0631809666j, 0.1766522925 - 0.0631494116j, -0.1774674525 - 0.0122881632j, -0.0000018451 + 0.1443376310j, 0.1623684148 + 0.0145005369j, 0.0082966391 - 0.1373043892j, 0.2054473728 - 0.0074061022j, 0.2210753406 + 0.0173772163j, -0.1768074188 + 0.1198987305j, -0.1362062801 - 0.0031580918j, -0.1767846512 - 0.1199638714j, -0.0279570118 - 0.1818101715j, 0.2499999999 + 0.0000000000j, -0.0218188355 - 0.0041922217j)

0.7571151198 - 0.6532814824j: Bezárt szög: -40.7894709409 360 / bezárt szög: -8.8258070452

- (0.1767766953 - 0.0000000000j, -0.0000000000 - 0.1767766953j, -0.1767766953 + 0.0000000000j, -0.1767766953 - 0.0000000000j, 0.0007033829 - 0.1309435856j, 0.0909004109 + 0.1851818100j, -0.1790452656 - 0.0028781700j, -0.0135809485 + 0.1307563837j, -0.0650229994 + 0.2317073230j, -0.0021728460 - 0.0723581084j, 0.1723605011 - 0.0007797759j, 0.1776501368 + 0.0017785790j, -0.0853366114 - 0.1016564218j, 0.0017171888 + 0.2125865376j, -0.0451502940 - 0.2183769236j, 0.0293480353 - 0.0623727971j, 0.0964985487 - 0.1689982096j, -0.0043424159 + 0.1374399940j, -0.0825499111 + 0.0956709060j, -0.0825086825 - 0.0955083589j, -0.0045317133 + 0.2259447210j, 0.1020621177 - 0.1767753906j, -0.0085645347 + 0.2101387176j, 0.0970888647 + 0.1823980729j, 0.0032714978 + 0.1543438162j, -0.0128513353 - 0.1776065290j, 0.0648887254 - 0.2309532098j, 0.0078112032 + 0.0682840594j, 0.0649239793 + 0.2309655767j, 0.0220692607 + 0.0368995348j, -0.1767730508 + 0.0000005746j, -0.1606489577 + 0.0029643484j)

0.7571151198 + 0.6532814824j: Bezárt szög: 40.7894709409 360 / bezárt szög: 8.8258070452

- (0.1767766953 - 0.0000000000j, 0.0000000000 - 0.1767766953j, 0.1767766953 - 0.0000000000j, 0.1767766953 + 0.0000000000j, -0.0309214283 + 0.2107063073j, 0.0065268964 - 0.1625241751j, -0.1634085443 + 0.0610913794j, -0.0978979307 - 0.1632835369j, -0.0003496195 + 0.0677023175j, 0.0641384410 + 0.2305338224j, -0.0061669351 - 0.0011027697j, 0.2499842160 + 0.0000000000j, 0.0010547783 + 0.2118549554j, -0.0881338198 + 0.0976547240j, -0.0533522901 - 0.0996318389j, -0.0567103324 + 0.2335214449j, 0.0118107909 + 0.1387449123j, 0.1070406435 - 0.1740192295j, -0.0000001438 + 0.2157141394j, 0.0000437751 - 0.2158019203j, 0.0637981127 - 0.0857802275j, -0.0000008674 - 0.1443359375j, -0.0988492141 - 0.0921802636j, -0.0017691860 + 0.1547389097j, 0.1003165638 + 0.1839389934j, 0.0797489525 - 0.1910582029j, -0.0000942466 + 0.0703566581j, 0.0628373882 + 0.2320080494j, 0.0000102020 - 0.0702835628j, 0.2462749928 + 0.0000000000j, -0.0000051541 - 0.0000008125j, 0.2490107702 + 0.0000000000j)

0.7071067812 + 0.7071067812j: Bezárt szög: 45.0000000000 360 / bezárt szög: 8.0000000000

- (-0.1767766953 - 0.0000000000j, -0.0000000000 + 0.1767766953j, -0.1767766953 + 0.0000000000j, -0.1767766953 - 0.0000000000j, 0.0309214283 + 0.2432818155j, 0.0196135016 + 0.1398575100j, 0.0181337840 + 0.0863962572j, 0.0978979307 - 0.1887705515j, -0.0010378307 + 0.0726383759j, 0.0641384410 - 0.2313694289j, -0.0061669351 - 0.0011027697j, 0.2499842160 - 0.0000000000j, 0.0035612845 + 0.2172047028j, -0.0881338198 - 0.0936137578j, 0.0620832461 - 0.0685701767j, -0.0567103324 - 0.2247315444j, 0.0013136774 - 0.1569264462j, -0.1070406435 - 0.1792587295j, 0.0000001071 + 0.2157141819j, 0.0000805743 - 0.2156578066j, 0.0637981127 + 0.1046818248j, 0.0000009778 + 0.1443391334j, -0.0988492141 + 0.0985762869j, -0.0100658251 - 0.1403687092j, -0.1003165638 + 0.1691267889j, -0.0797489525 - 0.1563037703j, 0.0001249949 + 0.0702472664j, 0.0628373882 - 0.2296715996j, -0.0000022457 - 0.0702552569j, -0.1856049769 + 0.0990082016j, -0.0000051541 - 0.0000008125j, 0.2490107702 - 0.0000000000j)

0.7071067812 - 0.7071067812j: Bezárt szög: -45.0000000000 360 / bezárt szög: -8.0000000000

- (0.0000000000 - 0.1767766953j, 0.1767766953 + 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.0000000000 - 0.1767766953j, -0.2321514439 + 0.0162877541j, -0.2488000220 + 0.0000000000j, 0.0053063816 - 0.0715300464j,

0.0220724021 - 0.0064628542j, -0.2499854496 - 0.0000000000j, 0.0014863967 - 0.0027696749j, 0.2499214933 - 0.0000000000j, 0.0012510167 + 0.0025152906j, 0.2498808074 + 0.0000000000j, 0.0023416220 + 0.0065077138j, -0.2414839545 + 0.0000000000j, 0.0156356828 - 0.0273711343j, -0.2494966735 - 0.0000000000j, -0.0045375401 + 0.0087608535j, -0.2500000000 + 0.0000000000j, -0.2499999245 - 0.0000000000j, 0.0109529242 + 0.0212927361j, 0.2500000000 + 0.0000000000j, -0.0037063089 - 0.0191821961j, 0.2496531893 - 0.0000000000j, 0.0128277454 + 0.0027795057j, 0.0300982215 - 0.0355517490j, -0.2499999648 + 0.0000000000j, -0.0041561321 - 0.0072865606j, -0.2499999994 + 0.0000000000j, -0.0398218547 - 0.0584171579j, 0.2499999999 + 0.0000000000j, -0.0218188355 - 0.0041922217j)

-0.7071067812 + 0.7071067812j: Bezárt szög: 135.0000000000 360 / bezárt szög: 2.6666666667

- (-0.0000000000 + 0.1767766953j, -0.1767766953 - 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.0000000000 - 0.1767766953j, 0.2038295784 - 0.0571353495j, -0.0160277526 - 0.0184840527j, 0.0798197338 - 0.1121289975j, -0.2489398333 + 0.0000000000j, -0.1277689465 - 0.0010184698j, -0.1759907219 + 0.1185123857j, 0.1810818643 + 0.0007797759j, -0.1758809319 + 0.0017785790j, -0.1691365448 + 0.0040822006j, 0.1751626247 - 0.0674547053j, -0.1672851831 + 0.0361089156j, 0.1834866359 + 0.1047870307j, 0.0128562859 + 0.0092804006j, 0.2498052405 + 0.0000000000j, -0.1651005100 + 0.0000002178j, -0.1649793455 - 0.0000815845j, 0.1831973199 - 0.0488289615j, 0.0000022598 - 0.0000000781j, -0.1786837248 - 0.0756559131j, -0.0101612662 - 0.0083686166j, -0.2496552088 - 0.0000000000j, -0.2456220068 - 0.0000000000j, 0.1299429504 + 0.0000554923j, 0.1788357508 - 0.1161083537j, 0.1298517712 + 0.0000121142j, -0.0535828526 + 0.2213250950j, -0.1767803397 - 0.0000005746j, 0.1915054508 + 0.0029643484j)

-0.7071067812 - 0.7071067812j: Bezárt szög: -135.0000000000 360 / bezárt szög: -2.6666666667

- (-0.1767766953 - 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.1767766953 - 0.0000000000j, 0.1767766953 + 0.0000000000j, 0.0121747566 + 0.2319196318j, -0.0909004109 + 0.1666745554j, 0.0194162500 - 0.0028691516j, 0.0044410924 - 0.1619714741j, -0.1569794070 + 0.0974780809j, -0.0001280225 - 0.1719414238j, 0.1723605011 - 0.0007797759j, 0.1776501368 + 0.0017785790j, 0.0353475818 + 0.2333579587j, -0.0056920714 - 0.0862640272j, -0.1090024520 - 0.0810043647j, 0.0202771634 - 0.1794722273j, -0.0964985487 - 0.1838433698j, -0.0080473019 - 0.1438570448j, 0.0341932927 - 0.2309699030j, 0.0341762153 + 0.2309025159j, 0.0181738518 - 0.1019723730j, -0.1020621177 - 0.1767780000j, 0.0182289637 - 0.0898789928j, -0.0970888647 + 0.1706648533j, -0.0072023125 - 0.1362026447j, -0.0374264303 + 0.1350412159j, 0.1566552408 - 0.0956306700j, 0.0053941044 + 0.1725318330j, 0.1567403514 + 0.0956604624j, 0.1612207416 + 0.0155021643j, -0.1767730508 + 0.0000005746j, -0.1606489577 + 0.0029643484j)

-0.7571151198 - 0.6532814824j: Bezárt szög: -139.2105290591 360 / bezárt szög: -2.5860112912

- (0.0000000000 + 0.1767766953j, -0.1767766953 + 0.0000000000j, 0.0000000000 + 0.1767766953j, -0.0000000000 - 0.1767766953j, -0.2038295784 + 0.0571353495j, -0.0160277526 - 0.0184840527j, -0.0798197338 + 0.1121289975j, -0.2489398333 - 0.0000000000j, 0.1277689465 + 0.0010184698j, 0.1759907219 - 0.1185123857j, 0.1810818643 + 0.0007797759j, -0.1758809319 + 0.0017785790j, 0.1691365448 - 0.0040822006j, -0.1751626247 + 0.0674547053j, 0.1672851831 - 0.0361089156j, -0.1834866359 - 0.1047870307j, 0.0128562859 + 0.0092804006j, 0.2498052405 - 0.0000000000j, 0.1651005100 - 0.0000002178j, 0.1649793455 + 0.0000815845j, -0.1831973199 + 0.0488289615j, 0.0000022598 - 0.0000000781j, 0.1786837248 + 0.0756559131j, -0.0101612662 - 0.0083686166j, -0.2496552088 - 0.0000000000j, -0.2456220068 - 0.0000000000j, -0.1299429504 - 0.0000554923j, -0.1788357508 + 0.1161083537j, -0.1298517712 - 0.0000121142j, 0.0535828526 - 0.2213250950j, -0.1767803397 - 0.0000005746j, 0.1915054508 + 0.0029643484j)

-0.7571151198 + 0.6532814824j: Bezárt szög: 139.2105290591 360 / bezárt szög: 2.5860112912

- (-0.1767766953 + 0.0000000000j, -0.0000000000 + 0.1767766953j, 0.1767766953 + 0.0000000000j, 0.1767766953 - 0.0000000000j, -0.0121747566 - 0.2319196318j, -0.0909004109 + 0.1666745554j, -0.0194162500 + 0.0028691516j, 0.0044410924 - 0.1619714741j, 0.1569794070 - 0.0974780809j, 0.0001280225 + 0.1719414238j, 0.1723605011 - 0.0007797759j, 0.1776501368 + 0.0017785790j, -0.0353475818 - 0.2333579587j, 0.0056920714 + 0.0862640272j, 0.1090024520 + 0.0810043647j, -0.0202771634 + 0.1794722273j, -0.0964985487 - 0.1838433698j, -0.0080473019 - 0.1438570448j, -0.0341932927 + 0.2309699030j, -0.0341762153 - 0.2309025159j, -0.0181738518 + 0.1019723730j, -0.1020621177 - 0.1767780000j, -0.0182289637 + 0.0898789928j, -0.0970888647 + 0.1706648533j, -0.0072023125 - 0.1362026447j, -0.0374264303 + 0.1350412159j, -0.1566552408 + 0.0956306700j, -0.0053941044 - 0.1725318330j, -0.1567403514 - 0.0956604624j, -0.1612207416 - 0.0155021643j, -0.1767730508 + 0.0000005746j, -0.1606489577 + 0.0029643484j)

-0.7571151198 - 0.6532814824j: Bezárt szög: -139.2105290591 360 / bezárt szög: -2.5860112912

- (0.0000000000+0.1767766953j, -0.1767766953-0.0000000000j, -0.0000000000-0.1767766953j, -0.0000000000+0.1767766953j, -0.1963801582+0.0062082627j, -0.0130866052+0.1285525939j, -0.0000048808+0.1074065983j, -0.2069898533 - 0.0127435073j, 0.1753789564 - 0.1201468365j, 0.1301118718 + 0.0026716907j, 0.2499214933 + 0.0000000000j, 0.0012510167 + 0.0025152906j, 0.1813084762 - 0.0653138147j, -0.1617367602 + 0.0040098627j, 0.1794858979 + 0.0834268649j, -0.1529977787 + 0.0118516653j, 0.0104971135 - 0.1364695563j, 0.1989070436 - 0.0026197500j, -0.1767767320 - 0.0631809666j, -0.1766522925 + 0.0631494116j, 0.1774674525 + 0.0122881632j, -0.0000018451 + 0.1443376310j, -0.1623684148 - 0.0145005369j, 0.0082966391 - 0.1373043892j, 0.2054473728 - 0.0074061022j, 0.2210753406 + 0.0173772163j, 0.1768074188 - 0.1198987305j, 0.1362062801 + 0.0031580918j, 0.1767846512 + 0.1199638714j, 0.0279570118 + 0.1818101715j, 0.2499999999 + 0.0000000000j, -0.0218188355 - 0.0041922217j)

-0.7571151198 + 0.6532814824j: Bezárt szög: 139.2105290591 360 / bezárt szög: 2.5860112912

- (0.1767766953+0.0000000000j, 0.0000000000-0.1767766953j, -0.1767766953+0.0000000000j, -0.1767766953-0.0000000000j, -0.0007033829 + 0.1309435856j, 0.0909004109 + 0.1851818100j, 0.1790452656 + 0.0028781700j, -0.0135809485 + 0.1307563837j, 0.0650229994 - 0.2317073230j, 0.0021728460 + 0.0723581084j, 0.1723605011 - 0.0007797759j, 0.1776501368 + 0.0017785790j, 0.0853366114 + 0.1016564218j, -0.0017171888 - 0.2125865376j, 0.0451502940 + 0.2183769236j, -0.0293480353 + 0.0623727971j, 0.0964985487 - 0.1689982096j, -0.0043424159 + 0.1374399940j, 0.0825499111 - 0.0956709060j, 0.0825086825 + 0.0955083589j, 0.0045317133 - 0.2259447210j, 0.1020621177 - 0.1767753906j, 0.0085645347 - 0.2101387176j, 0.0970888647 + 0.1823980729j, 0.0032714978 + 0.1543438162j, -0.0128513353 - 0.1776065290j, -0.0648887254 + 0.2309532098j, -0.0078112032 - 0.0682840594j, -0.0649239793 - 0.2309655767j, -0.0220692607 - 0.0368995348j, -0.1767730508 + 0.0000005746j, -0.1606489577 + 0.0029643484j)

-0.8660254038 + 0.5000000000j: Bezárt szög: 150.0000000000 360 / bezárt szög: 2.4000000000

- (0.0000000000-0.1767766953j, 0.1767766953-0.0000000000j, -0.0000000000-0.1767766953j, -0.0000000000+0.1767766953j, 0.0425619526 - 0.0808015862j, 0.2138161401 - 0.0092536273j, 0.0330624163 - 0.2371964827j, -0.0180220409 - 0.1384485814j, -0.0026713756 - 0.0003724573j, 0.2499802383 + 0.0000000000j, 0.1810818643 + 0.0007797759j, -0.1758809319 + 0.0017785790j, -0.0069897819 + 0.0032749082j, 0.2499043146 + 0.0000000000j, 0.0168104505 - 0.0624732620j, -0.2480047307 - 0.0000000000j, 0.2090712226 - 0.0074225801j, 0.0037048860 - 0.1513783298j, -0.0000000555 + 0.0000003279j, 0.0001882936 - 0.0000480805j, 0.2488506637 + 0.0000000000j, 0.2041241002 - 0.0000013047j, -0.2492354442 - 0.0000000000j, 0.2086725985 - 0.0058666098j, 0.0104738102 - 0.1418690451j, 0.0245750950 + 0.1127820503j, -0.0000592024 - 0.0001186526j, -0.2498592256 - 0.0000000000j, -0.0000153190 - 0.0000067366j, -0.0535828526 - 0.2337317553j, -0.1767803397 - 0.0000005746j, 0.1915054508 + 0.0029643484j)

-0.8660254038 + 0.5000000000j: Bezárt szög: 150.0000000000 360 / bezárt szög: 2.4000000000

- (0.0000000000 - 0.1767766953j, 0.1767766953 + 0.0000000000j, 0.0000000000 + 0.1767766953j, 0.0000000000 - 0.1767766953j, 0.0455720391 + 0.0075079448j, 0.2488000220 + 0.0000000000j, 0.0053132840 - 0.2234259143j, -0.0220724021 + 0.0064628542j, -0.0019621509 - 0.1699132857j, 0.1854923704 + 0.0010086663j, 0.2499214933 + 0.0000000000j, 0.0012510167 + 0.0025152906j, -0.0065280986 + 0.0923676825j, 0.2310719417 + 0.0008369115j, 0.0123474365 + 0.1179834039j, -0.2007358508 - 0.0106103484j, 0.2494966735 + 0.0000000000j, 0.0045375401 - 0.0087608535j, 0.0000000518 + 0.0893513799j, -0.0001758566 - 0.0893067543j, -0.2400239540 + 0.0039146490j, -0.2500000000 - 0.0000000000j, 0.2259173055 + 0.0013246598j, -0.2496531893 + 0.0000000000j, -0.0128277454 - 0.0027795057j, -0.0300982215 + 0.0355517490j, 0.0000434847 - 0.1695624108j, 0.1884686366 - 0.0028203443j, 0.0000112520 + 0.1696545339j, -0.0002846694 + 0.1987012524j, 0.2499999999 + 0.0000000000j, -0.0218188355 - 0.0041922217j)

-0.8660254038 - 0.5000000000j: Bezárt szög: -150.0000000000 360 / bezárt szög: -2.4000000000

- (0.1767766953 - 0.0000000000j, -0.0000000000 - 0.1767766953j, 0.1767766953 - 0.0000000000j, 0.1767766953 + 0.0000000000j, 0.0746509317 + 0.1333461357j, -0.0065268964 + 0.1625241751j, 0.1890535876 + 0.0610913794j, 0.0978979307 + 0.1632835369j, 0.0018173337 - 0.1704284939j, -0.1548438941 + 0.0966719619j, -0.0061669351 - 0.0011027697j, 0.2499842160 + 0.0000000000j, 0.0039816386 + 0.0953188811j, -0.0365062235 - 0.2300445699j, -0.0344466786 + 0.1966047128j, 0.1369108535 + 0.0842969531j, -0.0118107909 - 0.1387449123j, -0.1070406435 + 0.1740192295j, 0.0000002953 + 0.0893517822j, 0.0000701742 - 0.0891842746j, 0.0264260435 + 0.2338226838j, 0.0000008674 + 0.1443359375j, -0.0409446851 + 0.2315881854j, 0.0017691860 - 0.1547389097j, -0.1003165638 - 0.1839389934j, -0.0797489525 + 0.1910582029j, -0.0000825229 - 0.1697012950j, -0.1517028748 + 0.0927966417j, -0.0000070262 + 0.1696394999j, 0.0162100829 - 0.1400187415j, -0.0000051541 - 0.0000008125j, 0.2490107702 - 0.0000000000j)

-0.8660254038 - 0.5000000000j: Bezárt szög: -150.0000000000 360 / bezárt szög: -2.4000000000

- $(-0.1767766953-0.0000000000j, -0.0000000000+0.1767766953j, -0.1767766953+0.0000000000j, -0.1767766953-0.0000000000j, -0.0746509317+0.0547019019j, -0.0196135016-0.1398575100j, -0.2492283636-0.0000000000j, -0.0978979307+0.1887705515j, 0.0015322673-0.1683839116j, -0.1548438941-0.0946546293j, -0.0061669351-0.0011027697j, 0.2499842160+0.0000000000j, -0.0020696028+0.0824034483j, -0.0365062235+0.2317183929j, 0.0133682861+0.2094708745j, 0.1369108535-0.1055176500j, -0.0013136774+0.1569264462j, 0.1070406435+0.1792587295j, -0.0000003105+0.0893516796j, -0.0000186670-0.0895321959j, 0.0264260435-0.2259933859j, -0.0000009778-0.1443391334j, -0.0409446851-0.2289388658j, 0.0100658251+0.1403687092j, 0.1003165638-0.1691267889j, 0.0797489525+0.1563037703j, 0.0000082899-0.1697466065j, -0.1517028748-0.0984373304j, -0.0000121821+0.1696512246j, -0.1626804579-0.0990082016j, -0.0000051541-0.0000008125j, 0.2490107702-0.0000000000j)$

$-0.9626924199 + 0.2705980501j$: Bezárt szög: 164.3001425950 360 / bezárt szög: 2.1911119145

- $(-0.0000000000+0.1767766953j, -0.1767766953-0.0000000000j, 0.0000000000+0.1767766953j, 0.0000000000-0.1767766953j, 0.1436378877+0.0571353495j, 0.0160277526+0.0184840527j, 0.0330624163+0.2233174853j, 0.2489398333+0.0000000000j, -0.1315468421-0.0015452039j, 0.1775347214+0.1185123857j, 0.1810818643+0.0007797759j, -0.1758809319+0.0017785790j, -0.1592515005-0.0005492190j, -0.1782554463-0.0674547053j, -0.1435116160-0.0522416188j, -0.1672450177+0.1047870307j, -0.0128562859-0.0092804006j, -0.2498052405+0.0000000000j, -0.1651004316-0.0000002459j, -0.1652456329-0.0000135884j, -0.1687306637-0.0488289615j, -0.0000022598+0.0000000781j, 0.1737884205-0.0756559131j, 0.0101612662+0.0083686166j, 0.2496552088+0.0000000000j, 0.2456220068+0.0000000000j, 0.1298592256-0.0001123078j, -0.1745185546-0.1161083537j, 0.1298301069+0.0000025872j, -0.1293604494-0.1092215233j, -0.1767803397-0.0000005746j, 0.1915054508+0.0029643484j)$

$-0.9626924199 - 0.2705980501j$: Bezárt szög: -164.3001425950 360 / bezárt szög: -2.1911119145

- $(0.1767766953+0.0000000000j, 0.0000000000-0.1767766953j, 0.1767766953-0.0000000000j, 0.1767766953+0.0000000000j, 0.0309214283-0.2107063073j, 0.0065268964-0.1625241751j, 0.1634085443-0.0610913794j, -0.0978979307-0.1632835369j, 0.0003496195-0.0677023175j, -0.0641384410-0.2305338224j, -0.0061669351-0.0011027697j, 0.2499842160+0.0000000000j, -0.0010547783-0.2118549554j, 0.0881338198-0.0976547240j, 0.0533522901+0.0996318389j, 0.0567103324-0.2335214449j, 0.0118107909+0.1387449123j, 0.1070406435-0.1740192295j, 0.0000001438-0.2157141394j, -0.0000437751+0.2158019203j, -0.0637981127+0.0857802275j, -0.0000008674-0.1443359375j, 0.0988492141+0.0921802636j, -0.0017691860+0.1547389097j, 0.1003165638+0.1839389934j, 0.0797489525-0.1910582029j, 0.0000942466-0.0703566581j, -0.0628373882-0.2320080494j, -0.0000102020+0.0702835628j, -0.2462749928-0.0000000000j, -0.0000051541-0.0000008125j, 0.2490107702-0.0000000000j)$

$-0.9626924199 - 0.2705980501j$: Bezárt szög: -164.3001425950 360 / bezárt szög: -2.1911119145

- $(-0.0000000000+0.1767766953j, -0.1767766953-0.0000000000j, -0.0000000000-0.1767766953j, -0.0000000000+0.1767766953j, 0.1319315624-0.0168261001j, 0.0130866052-0.1285525939j, -0.0075092376+0.2085653600j, 0.2069898533+0.0127435073j, -0.1781538568-0.1201468365j, 0.1322139541-0.0012452211j, 0.2499214933+0.0000000000j, 0.0012510167+0.0025152906j, -0.1720763506-0.0653138147j, -0.1650483137-0.0051934343j, -0.1620239857+0.0834268649j, -0.1308855840-0.0268569640j, -0.0104971135+0.1364695563j, -0.1989070436+0.0026197500j, 0.1767766586-0.0631809666j, 0.1769009913+0.0631494116j, 0.1619776786-0.0178243129j, 0.0000018451-0.1443376310j, -0.1571269026+0.0126271850j, -0.0082966391+0.1373043892j, -0.2054473728+0.0074061022j, -0.2210753406-0.0173772163j, -0.1767459221-0.1198987305j, 0.1303286218-0.0071466610j, -0.1767687386+0.1199638714j, -0.0283595952+0.0991958345j, 0.2499999999+0.0000000000j, -0.0218188355-0.0041922217j)$

$-0.9626924199 + 0.2705980501j$: Bezárt szög: 164.3001425950 360 / bezárt szög: 2.1911119145

- $(-0.1767766953-0.0000000000j, -0.0000000000+0.1767766953j, 0.1767766953-0.0000000000j, 0.1767766953+0.0000000000j, 0.0131694902+0.0467374372j, 0.0909004109-0.1666745554j, -0.2337919930-0.0069394987j, -0.0044410924+0.1619714741j, -0.0650229994-0.2302055577j, 0.0029448458-0.0696116055j, 0.1723605011-0.0007797759j, 0.1776501368+0.0017785790j, -0.0853366114+0.0895940684j, -0.0032635996+0.2143787375j, -0.0451502940+0.2278272424j, -0.0212272262-0.0912637717j, 0.0964985487+0.1838433698j, 0.0080473019+0.1438570448j, -0.0825499111-0.0956708102j, -0.0825086825+0.0958332995j, 0.0117650414+0.2175617158j, 0.1020621177+0.1767780000j, 0.0061168826+0.2073020316j, 0.0970888647-0.1706648533j, 0.0072023125+0.1362026447j, 0.0374264303-0.1350412159j, 0.0648887254+0.2309864915j, -0.0056526051+0.0759635901j, 0.0649239793-0.2309741885j, 0.1300100938-0.0366816583j, -0.1767730508+0.0000005746j, -0.1606489577+0.0029643484j)$

$-1.0000000000 + 0.0000000000j$: Bezárt szög: 180.0000000000 360 / bezárt szög: 2.0000000000

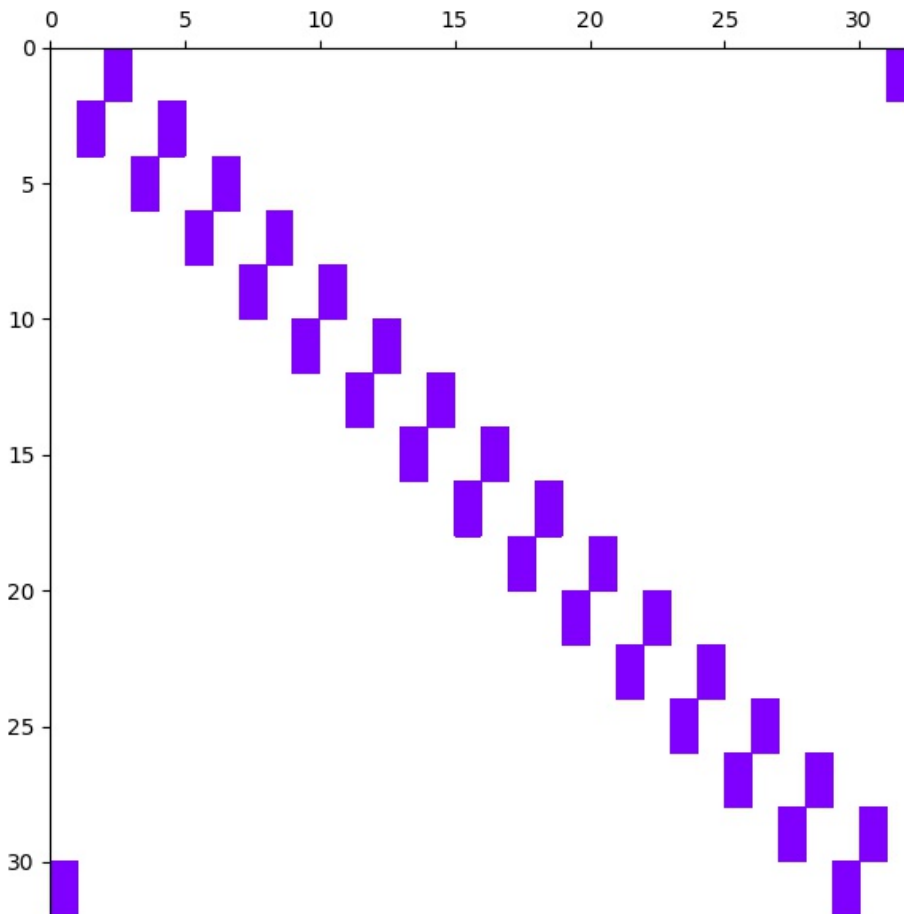
- $(0.1767766953+0.0000000000j, 0.0000000000-0.1767766953j, -0.1767766953+0.0000000000j, -0.1767766953-0.0000000000j, -0.0179210888-0.1970403032j, -0.0909004109-0.1851818100j, 0.1515865416+0.0069357631j, 0.0135809485-0.1307563837j, -0.1569794070-0.0938524989j, 0.0019917948-0.1708037851j, 0.1723605011-0.0007797759j, 0.1776501368+0.0017785790j, 0.0353475818-0.2283615684j, 0.0063326157-0.0905907804j, -0.1090024520+0.1038194524j, -0.0006717959-0.1914392608j, -0.0964985487+0.1689982096j, 0.0043424159-0.1374399940j, 0.0341932927+0.2309698633j, 0.0341762153-0.2310371108j, -0.0211699944-0.0817340081j, -0.1020621177+0.1767753906j, -0.0172151130-0.0830306270j, -0.0970888647-0.1823980729j, -0.0032714978-0.1543438162j, 0.0128513353+0.1776065290j, 0.1566552408+0.0957110193j, -0.0001827876+0.1757127987j, 0.1567403514-0.0956812533j, 0.2059312986-0.0149761638j, -0.1767730508+0.0000005746j, -0.1606489577+0.0029643484j)$

$-1.0000000000-0.0000000000j$: Bezárt szög: -180.0000000000 360 / bezárt szög: -2.0000000000

- $(0.0000000000-0.1767766953j, 0.1767766953+0.0000000000j, -0.0000000000-0.1767766953j, -0.0000000000+0.1767766953j, -0.2456966016-0.0000000000j, -0.2138161401+0.0092536273j, -0.0798197338-0.0786221338j, 0.0180220409+0.1384485814j, -0.1833639526-0.0018127910j, 0.0010917725+0.1676018232j, 0.1810818643+0.0007797759j, -0.1758809319+0.0017785790j, 0.2322054137-0.0024981952j, 0.0021869551+0.0953953591j, -0.2197665242-0.0114075439j, 0.0114845584+0.1481912400j, -0.2090712226+0.0074225801j, -0.0037048860+0.1513783298j, 0.2334873250+0.0000000198j, 0.2335043215+0.0000672974j, -0.0102294707+0.0690545796j, -0.2041241002+0.0000013047j, 0.0034615028+0.1069936183j, -0.2086725985+0.0058666098j, -0.0104738102+0.1418690451j, -0.0245750950-0.1127820503j, 0.1837078805-0.0000401746j, 0.0030527187-0.1642020085j, 0.1836228169+0.0000103955j, -0.1293604494+0.0792691958j, -0.1767803397-0.0000005746j, 0.1915054508+0.0029643484j)$

6. Szimulációs mátrix

6.1. 3. szimuláció mátrixa



24. ábra. 3. szimuláció mátrixa

6.2. Érme sajátértékek, sajátvektorok

$1.0000000000 - 0.0000000000j$: Bezárt szög: -0.0000000000 360 / bezárt szög: $-495455545029229184.0000000000$

- $(0.9238795325 + 0.0000000000j, -0.3826834324 + 0.0000000000j)$

$-1.0000000000 - 0.0000000000j$: Bezárt szög: -180.0000000000 360 / bezárt szög: -2.0000000000

- $(0.3826834324 - 0.0000000000j, 0.9238795325 + 0.0000000000j)$