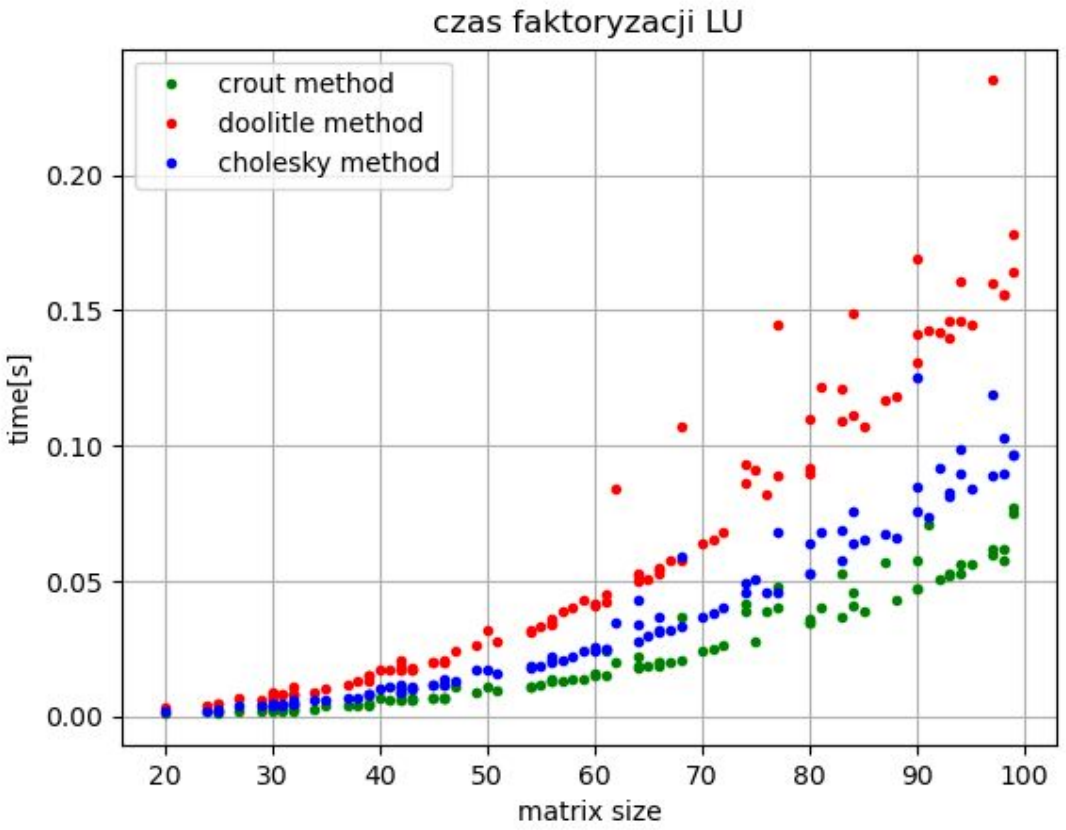
zad 1 przetestowanie wydajności:



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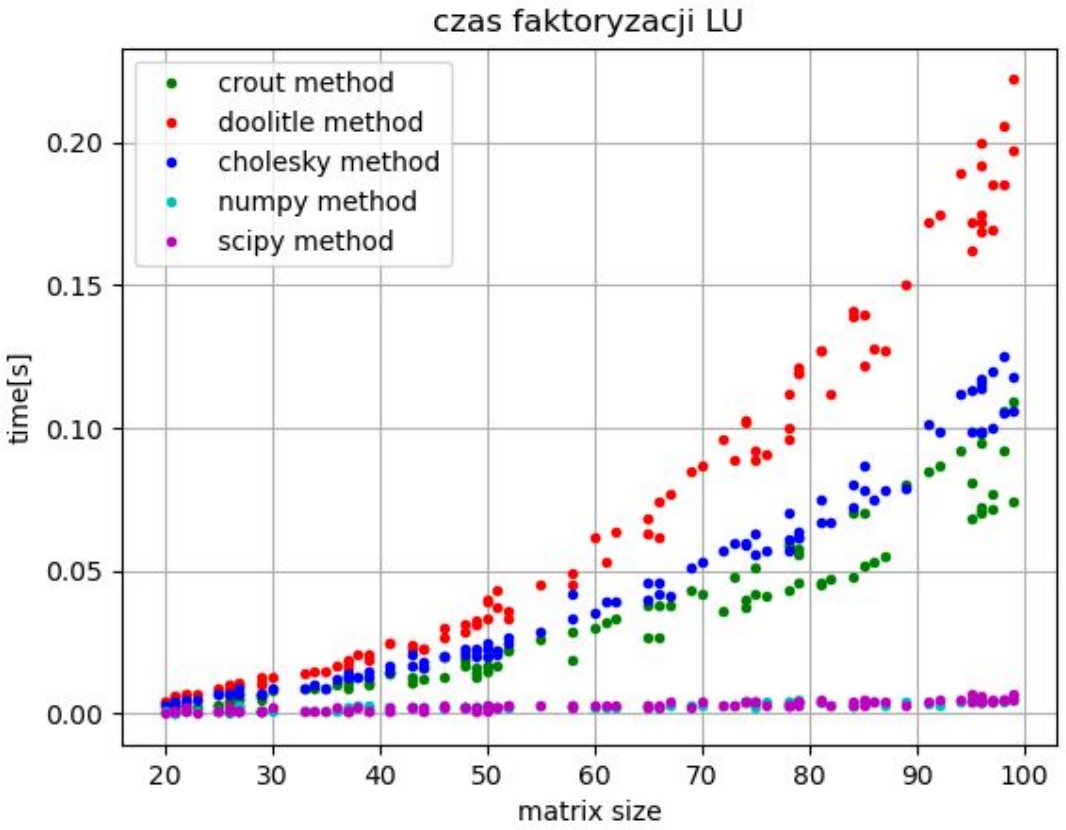
matrix size: 90 crout: 0.057996273040771484[s] doolittle: 0.16900324821472168[s] cholesky: 0.12501001358032227[s]

zad3. porównanie ze scipy i numpy:



wyniki:
matrix size: 75 crout: 0.04099607467651367[s] doolittle: 0.10000371932983398[s] cholesky: 0.06199836730957031[s] numpy: 0.0039997100830078125[s] scipy: 0.006999015808105469[s]
matrix size: 91 crout: 0.06300210952758789[s] doolittle: 0.14899659156799316[s] cholesky: 0.10200047492980957[s] numpy: 0.005000114440917969[s] scipy: 0.005000114440917969[s]
matrix size: 71 crout: 0.035001516342163086[s] doolittle: 0.07599854469299316[s] cholesky: 0.05000162124633789[s] numpy: 0.0039997100830078125[s] scipy: 0.003999948501586914[s]
matrix size: 96 crout: 0.09199810028076172[s] doolittle: 0.16900014877319336[s] cholesky: 0.09900259971618652[s] numpy: 0.00499725341796875[s] scipy: 0.004000186920166016[s]
matrix size: 24 crout: 0.0030012130737304688[s] doolittle: 0.007002830505371094[s] cholesky: 0.006007194519042969[s] numpy: 0.0009920597076416016[s] scipy: 0.0009961128234863281[s]
matrix size: 57 crout: 0.029001474380493164[s] doolittle: 0.0559999942779541[s] cholesky: 0.03701710700988769 5[s] numpy: 0.0019817352294921875[s] scipy: 0.0040471553802490234[s]
matrix size: 68 crout: 0.04295539855957031[s] doolittle: 0.08500289916992188[s] cholesky: 0.05499505996704101 6[s] numpy: 0.0019986629486083984[s] scipy: 0.0030024051666259766[s]
matrix size: 41 crout: 0.013022184371948242[s] doolittle: 0.023975849151611328[s] cholesky: 0.013003110885620117[s] numpy: 0.001997232437133789[s] scipy: 0.002000808715820312 5[s]
matrix size: 67 crout: 0.031000852584838867[s] doolittle: 0.07799816131591797[s] cholesky: 0.04300022125244140 6[s] numpy: 0.0019996616622924804 7[s] scipy: 0.002999067306518554 7[s]
matrix size: 35 crout: 0.006000280380249023 4[s] doolittle: 0.015001773834228516[s] cholesky: 0.010000228881835938[s] numpy: 0.0020136833190917 97[s] scipy: 0.0009839534759521484[s]
matrix size: 87 crout: 0.057001352310180664[s] doolittle: 0.12999916076660156[s] cholesky: 0.08300089836120605[s] numpy: 0.003000020980834961[s] scipy: 0.003998756408691406[s]

matrix size: 30 crout: 0.0049991607666015625[s] doolittle: 0.012001991271972656[s] cholesky: 0.009003639221191406[s] numpy: 0.001996278762817383[s] scipy: 0.0009987354278564453[s]
matrix size: 37 crout: 0.00800013542175293[s] doolittle: 0.016000032424926758[s] cholesky: 0.01299905776977539[s] numpy: 0.0010025501251220703[s] scipy: 0.0020012855529785156[s]
matrix size: 75 crout: 0.0389971733093261 7[s] doolittle: 0.10500192642211914[s] cholesky: 0.0559980869293212 9[s] numpy: 0.0029990673065185547[s] scipy: 0.004002809524536133[s]
matrix size: 46 crout: 0.015001535415649414[s] doolittle: 0.027997732162475586[s] cholesky: 0.01803541183471679 7[s] numpy: 0.0019631385803222656[s] scipy: 0.003002643585205078[s]
matrix size: 91 crout: 0.06500005722045898[s] doolittle: 0.15599989891052246[s] cholesky: 0.08599996566772461[s] numpy: 0.003999233245849609[s] scipy: 0.0050003528594970 7[s]
matrix size: 59 crout: 0.022000551223754883[s] doolittle: 0.05499982833862305[s] cholesky: 0.03600096702575683 6[s] numpy: 0.002997875213623047[s] scipy: 0.002001523971557617[s]
matrix size: 93 crout: 0.06500005722045898[s] doolittle: 0.1560983657836914[s] cholesky: 0.09156155586242676[s] numpy: 0.004997730255126953[s] scipy: 0.0040023326873779 3[s]
matrix size: 52 crout: 0.018998384475708008[s] doolittle: 0.039001226425170 9[s] cholesky: 0.03003311157226562 5[s] numpy: 0.003965139389038086[s] scipy: 0.001998901367187 5[s]
matrix size: 88 crout: 0.05906033515930176[s] doolittle: 0.13093829154968262[s] cholesky: 0.08299970626831055[s] numpy: 0.004001140594482422[s] scipy: 0.003999233245849609[s]
matrix size: 89 crout: 0.06300115585327148[s] doolittle: 0.161515951156616 2[s] cholesky: 0.08770346641540527[s] numpy: 0.003999233245849609[s] scipy: 0.004999399185180664[s]
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matrix size: 74 crout: 0.040001869201660156[s] doolittle: 0.08499932289123535[s] cholesky: 0.05499911308288574[s] numpy: 0.003000497817993164[s] scipy: 0.002999067306518554 7[s]
matrix size: 33 crout: 0.008001565933227539[s] doolittle: 0.012999057769775 39[s] cholesky: 0.01000380516052246 1[s] numpy: 0.0009982585906982422[s] scipy: 0.000998497009277343 8[s]
matrix size: 62 crout: 0.036997795104980 47[s] doolittle: 0.05400013923645019 5[s] cholesky: 0.035003662109375[s] numpy: 0.003996372222900391[s] scipy: 0.001997947692871093 8[s]
matrix size: 69 crout: 0.034000635147094 73[s] doolittle: 0.07200050354003906[s] cholesky: 0.04699897766113281[s] numpy: 0.003000259399414062 5[s] scipy: 0.002997875213623047[s]
matrix size: 41 crout: 0.011003017425537 11[s] doolittle: 0.024001836776733 4[s] cholesky: 0.01599740982055664[s] numpy: 0.0020024776458740234[s] scipy: 0.001997470855712890 6[s]
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matrix size: 99 crout: 0.079013824462890 62[s] doolittle: 0.20398616790771484[s] cholesky: 0.10600018501281738[s] numpy: 0.005999803543090 82[s] scipy: 0.0050003528594970 7[s]
matrix size: 78 crout: 0.052999734878540 04[s] doolittle: 0.11700057983398438[s] cholesky: 0.06399941444396973[s] numpy: 0.003999710083007812 5[s] scipy: 0.004000186920166016[s]
matrix size: 94 crout: 0.090000152587890 62[s] doolittle: 0.18499827384948 73[s] cholesky: 0.10799884796142578[s] numpy: 0.005003690719604492[s] scipy: 0.004000425338745117[s]
matrix size: 95 crout: 0.072516679763793 95[s] doolittle: 0.17600083351135254[s] cholesky: 0.10099983215332031[s] numpy: 0.005001068115234375[s] scipy: 0.004997730255126953[s]
matrix size: 84 crout: 0.053001880645751 95[s] doolittle: 0.12399840354919434[s] cholesky: 0.07300186157226562[s] numpy: 0.002999067306518554 7[s] scipy: 0.003998994827270508[s]
matrix size: 79 crout: 0.044003725051879 88[s] doolittle: 0.11656951904296875[s] cholesky: 0.06200122833251953[s] numpy: 0.005001783370971 68[s] scipy: 0.004998445105086425 8[s]
matrix size: 86 crout: 0.053998947143554 69[s] doolittle: 0.13300371170043945[s] cholesky: 0.07899689674377441[s] numpy: 0.003998994827270508[s] scipy: 0.004999160766601562 5[s]
matrix size: 38 crout: 0.009001970291137695[s] doolittle: 0.020001411437988 28[s] cholesky: 0.01299691200256347 7[s] numpy: 0.001003980636596679 7[s] scipy: 0.001999139785766601 6[s]
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matrix size: 69 crout: 0.034013032913208 01[s] doolittle: 0.07699441909790039[s] cholesky: 0.04646086692810058 6[s] numpy: 0.004016399383544922[s] scipy: 0.002982139587402343 8[s]
matrix size: 43 crout: 0.014002084732055664[s] doolittle: 0.022576570510864258[s] cholesky: 0.01704239845275879[s] numpy: 0.002999782562255859 4[s] scipy: 0.002002477645874023 4[s]
matrix size: 88 crout: 0.061001062393188 48[s] doolittle: 0.13076424598693848[s] cholesky: 0.07899999618530273[s] numpy: 0.004000425338745117[s] scipy: 0.003999233245849609[s]
matrix size: 73 crout: 0.038000822067260 74[s] doolittle: 0.08099937438964844[s] cholesky: 0.05100059509277344[s] numpy: 0.003999233245849609[s] scipy: 0.002985904693603516[s]

matrix size: 32 crout: 0.007002830505371094[s] doolittle: 0.010998010635375977[s] cholesky: 0.009001731872558594[s] numpy: 0.0019981861114501953[s] scipy: 0.0020008087158203125[s]
matrix size: 91 crout: 0.0710000991821289[s] doolittle: 0.15000009536743164[s] cholesky: 0.09311723709106445[s] numpy: 0.003882884979248047[s] scipy: 0.006000041961669922[s]
matrix size: 37 crout: 0.008958578109741211[s] doolittle: 0.017001628875732422[s] cholesky: 0.011998653411865234[s] numpy: 0.0020020008087158203[s] scipy: 0.0009977817535400391[s]
matrix size: 82 crout: 0.046999454498291016[s] doolittle: 0.10800051689147949[s] cholesky: 0.0690007209777832[s] numpy: 0.004019737243652344[s] scipy: 0.003979921340942383[s]
matrix size: 61 crout: 0.026998519897460938[s] doolittle: 0.05300188064575195[s] cholesky: 0.03499937057495117[s] numpy: 0.0020003318786621094[s] scipy: 0.0029990673065185547[s]
matrix size: 59 crout: 0.023000001907348633[s] doolittle: 0.048999786376953125[s] cholesky: 0.03200078010559082[s] numpy: 0.003000974655151367[s] scipy: 0.0019991397857666016[s]
matrix size: 58 crout: 0.0260012149810791[s] doolittle: 0.04699897766113281[s] cholesky: 0.03099989891052246[s] numpy: 0.002001523971557617[s] scipy: 0.0019991397857666016[s]
matrix size: 35 crout: 0.00699925422668457[s] doolittle: 0.014999866485595703[s] cholesky: 0.0110015869140625[s] numpy: 0.0009945068359375[s] scipy: 0.0009984970092773438[s]
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matrix size: 38 crout: 0.011020660400390625[s] doolittle: 0.022979021072387695[s] cholesky: 0.015001296997070312[s] numpy: 0.0009982585906982422[s] scipy: 0.002030611038208008[s]
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matrix size: 27 crout: 0.005005598068237305[s] doolittle: 0.009000539779663086[s] cholesky: 0.006988763809204101 6[s] numpy: 0.001002073287963867 2[s] scipy: 0.0009996891021728516[s]
matrix size: 68 crout: 0.04400348663330078[s] doolittle: 0.09399747848510742[s] cholesky: 0.05199933052062988[s] numpy: 0.003998994827270508[s] scipy: 0.004009485244750976 6[s]
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matrix size: 59 crout: 0.023965120315551758[s] doolittle: 0.04899859428405762[s] cholesky: 0.03200054168701172[s] numpy: 0.002000093460083008[s] scipy: 0.003002166748046875[s]
matrix size: 60 crout: 0.02499842643737793[s] doolittle: 0.05199956893920898 4[s] cholesky: 0.03099918365478515 6[s] numpy: 0.002000570297241211[s] scipy: 0.002999544143676758[s]
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matrix size: 24 crout: 0.0029990673065185547[s] doolittle: 0.006999492645263672[s] cholesky: 0.0050008296966552734[s] numpy: 0.0009987354278564453[s] scipy: 0.0010006427764892578[s]
matrix size: 40 crout: 0.009000062942504883[s] doolittle: 0.02099919319152832[s] cholesky: 0.015000343322753906[s] numpy: 0.0019998550415039062[s] scipy: 0.0029997825622558594[s]
matrix size: 80 crout: 0.043999433517456055[s] doolittle: 0.10599946975708008[s] cholesky: 0.06500434875488281[s] numpy: 0.002998828887939453[s] scipy: 0.004000663757324219[s]
matrix size: 69 crout: 0.03399991989135742[s] doolittle: 0.07499980926513672[s] cholesky: 0.04699993133544922[s] numpy: 0.003002643585205078[s] scipy: 0.0039975643157958984[s]
matrix size: 49 crout: 0.01600050926208496[s] doolittle: 0.03299975395202637[s] cholesky: 0.02400064468383789[s] numpy: 0.0019991397857666016[s] scipy: 0.002000093460083008[s]
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matrix size: 71 crout: 0.03500080108642578[s] doolittle: 0.07500004768371582[s] cholesky: 0.04999923706054687 5[s] numpy: 0.002999305725097656 2[s] scipy: 0.0030012130737304688[s]
matrix size: 70 crout: 0.03299880027770996[s] doolittle: 0.07200121879577637[s] cholesky: 0.04499912261962890 6[s] numpy: 0.003000259399414062 5[s] scipy: 0.0030016899108886 72[s]
matrix size: 37 crout: 0.009999275207519531[s] doolittle: 0.01999974250793457[s] cholesky: 0.011002779006958008[s] numpy: 0.0009970664978027344[s] scipy: 0.0020008087158203125[s]
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matrix size: 56 crout: 0.02200031280517578[s] doolittle: 0.04499936103820801[s] cholesky: 0.02800130844116211[s] numpy: 0.002997875213623047[s] scipy: 0.002003431320190429 7[s]

matrix size: 28 crout: 0.003999233245849609[s] doolittle: 0.009999752044677734[s] cholesky: 0.007999658584594727[s] numpy: 0.0010008811950683594[s] scipy: 0.0[s]
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matrix size: 99 crout: 0.07999992370605469[s] doolittle: 0.18700146675109863[s] cholesky: 0.1139979362487793[s] numpy: 0.00400185585021972666[s] scipy: 0.004999876022338867[s]
matrix size: 78 crout: 0.05900096893310547[s] doolittle: 0.1029977798461914[s] cholesky: 0.05999922752380371[s] numpy: 0.00400090217590332[s] scipy: 0.003000020980834961[s]
matrix size: 44 crout: 0.015001535415649414[s] doolittle: 0.02799820899963379[s] cholesky: 0.01600050926208496[s] numpy: 0.001998424530029297[s] scipy: 0.0010013580322265625[s]
matrix size: 30 crout: 0.004999876022338867[s] doolittle: 0.011999845504760742[s] cholesky: 0.00900053979663086[s] numpy: 0.001998901367187[s] scipy: 0.0[s]
matrix size: 71 crout: 0.03600049018859863[s] doolittle: 0.08800125122070312[s] cholesky: 0.05299949645996094[s] numpy: 0.003997802734375[s] scipy: 0.003002405166625976[s]
matrix size: 99 crout: 0.07799935340881348[s] doolittle: 0.20100092887878418[s] cholesky: 0.1210017204284668[s] numpy: 0.007998704910278320[s] scipy: 0.007002830505371094[s]
matrix size: 82 crout: 0.04900050163269043[s] doolittle: 0.11699676513671875[s] cholesky: 0.0689995288848877[s] numpy: 0.003998756408691406[s] scipy: 0.004001855850219726[s]
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matrix size: 98 crout: 0.08000016212463379[s] doolittle: 0.1809999942779541[s] cholesky: 0.12199997901916504[s] numpy: 0.005000829696655273[s] scipy: 0.004999637603759766[s]
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matrix size: 35 crout: 0.008002281188964844[s] doolittle: 0.016000747680664062[s] cholesky: 0.009996891021728516[s] numpy: 0.0020008087158203125[s] scipy: 0.0010020732879638672[s]
matrix size: 87 crout: 0.060517072677612305[s] doolittle: 0.13299989700317383[s] cholesky: 0.09099936485290527[s] numpy: 0.003000974655151367[s] scipy: 0.004999637603759766[s]
matrix size: 59 crout: 0.023999691009521484[s] doolittle: 0.04999971389770508[s] cholesky: 0.03200125694274902[s] numpy: 0.0020003318786621094[s] scipy: 0.0030014514923095703[s]
matrix size: 68 crout: 0.03200578689575195[s] doolittle: 0.07199215888977051[s] cholesky: 0.04699969291687012[s] numpy: 0.002001047134399414[s] scipy: 0.002998590469360351[s]
matrix size: 34 crout: 0.008000373840332031[s] doolittle: 0.016001939773559570[s] cholesky: 0.009000539779663086[s] numpy: 0.0009975433349609375[s] scipy: 0.0010011196136474609[s]
matrix size: 79 crout: 0.04500174522399902[s] doolittle: 0.10302519798278809[s] cholesky: 0.06097269058227539[s] numpy: 0.004000663757324219[s] scipy: 0.003998279571533203[s]
matrix size: 82 crout: 0.05100131034851074[s] doolittle: 0.11399984359741211[s] cholesky: 0.06799983978271484[s] numpy: 0.003000736236572265[s] scipy: 0.003999471664428711[s]
matrix size: 66 crout: 0.026999711990356445[s] doolittle: 0.06399989128112793[s] cholesky: 0.0409998893737793[s] numpy: 0.002999544143676758[s] scipy: 0.0019998550415039062[s]
matrix size: 38 crout: 0.009973049163818359[s] doolittle: 0.018004655838012695[s] cholesky: 0.012995958328247070[s] numpy: 0.0009970664978027344[s] scipy: 0.002001047134399414[s]
matrix size: 99 crout: 0.07299995422363281[s] doolittle: 0.20102858543395996[s] cholesky: 0.10397124290466309[s] numpy: 0.003001451492309570[s] scipy: 0.004998683929443359[s]
matrix size: 50 crout: 0.015998363494873047[s] doolittle: 0.03100156784057617[s] cholesky: 0.021999120712280273[s] numpy: 0.0020008087158203125[s] scipy: 0.0019998550415039062[s]
matrix size: 76 crout: 0.03800010681152344[s] doolittle: 0.08899974822998047[s] cholesky: 0.05599856376647949[s] numpy: 0.003000497817993164[s] scipy: 0.003000259399414062[s]

matrix size: 93 crout: 0.06399965286254883[s] doolittle: 0.15200114250183105[s] cholesky: 0.09000039100646973[s] numpy: 0.004998922348022461[s] scipy: 0.002998828887939453[s]
matrix size: 79 crout: 0.042999982833862305[s] doolittle: 0.09800052642822266[s] cholesky: 0.05899953842163086[s] numpy: 0.003999948501586914[s] scipy: 0.003000020980834961[s]
matrix size: 32 crout: 0.005999326705932617[s] doolittle: 0.012001276016235352[s] cholesky: 0.008998394012451172[s] numpy: 0.0010004043579101562[s] scipy: 0.0010013580322265625[s]
matrix size: 32 crout: 0.005999088287353516[s] doolittle: 0.011999368667602539[s] cholesky: 0.009000539779663086[s] numpy: 0.0009989738464355469[s] scipy: 0.002001047134399414[s]
matrix size: 99 crout: 0.09100031852722168[s] doolittle: 0.175065279006958[s] cholesky: 0.10399961471557617[s] numpy: 0.0030002593994140625[s] scipy: 0.005000114440917969[s]
matrix size: 20 crout: 0.0019998550415039062[s] doolittle: 0.004000663757324219[s] cholesky: 0.0029981136322021484[s] numpy: 0.0[s] scipy: 0.0010003265380859375[s]
matrix size: 76 crout: 0.03999662399291992[s] doolittle: 0.09100079536437988[s] cholesky: 0.05700063705444336[s] numpy: 0.0030012130737304688[s] scipy: 0.003000020980834961[s]
matrix size: 42 crout: 0.011998414993286133[s] doolittle: 0.021000146865844727[s] cholesky: 0.014000415802001953[s] numpy: 0.0010006427764892578[s] scipy: 0.0010018348693847656[s]
matrix size: 66 crout: 0.0280001163482666[s] doolittle: 0.06199932098388672[s] cholesky: 0.0409998893737793[s] numpy: 0.0020012855529785156[s] scipy: 0.002998828887939453[s]
matrix size: 67 crout: 0.04200005531311035[s] doolittle: 0.06400203704833984[s] cholesky: 0.041997671127319336[s] numpy: 0.0030007362365722656[s] scipy: 0.0030007362365722656[s]
matrix size: 41 crout: 0.011000871658325195[s] doolittle: 0.022999286651611328[s] cholesky: 0.013999700546264648[s] numpy: 0.0010004043579101562[s] scipy: 0.0019991397857666016[s]
matrix size: 49 crout: 0.014000654220581055[s] doolittle: 0.030999183654785156[s] cholesky: 0.01900029182434082[s] numpy: 0.0019998550415039062[s] scipy: 0.002001047134399414[s]
matrix size: 89 crout: 0.056001901626586914[s] doolittle: 0.13400030136108398[s] cholesky: 0.07900094985961914[s] numpy: 0.003997325897216797[s] scipy: 0.0039997100830078125[s]
matrix size: 81 crout: 0.04600095748901367[s] doolittle: 0.10600042343139648[s] cholesky: 0.06499981880187988[s] numpy: 0.0039997100830078125[s] scipy: 0.003999233245849609[s]
matrix size: 80 crout: 0.04500007629394531[s] doolittle: 0.10399985313415527[s] cholesky: 0.06099987030029297[s] numpy: 0.003000497817993164[s] scipy: 0.003000974655151367[s]
matrix size: 68 crout: 0.03000044822692871[s] doolittle: 0.067000627517700 2[s] cholesky: 0.042999505996704 1[s] numpy: 0.001998901367 1875[s] scipy: 0.003001689910888672[s]
matrix size: 30 crout: 0.005000114440917969[s] doolittle: 0.010998010635375977[s] cholesky: 0.0080018043518066 4[s] numpy: 0.0009989738464355469[s] scipy: 0.001998901367 1875[s]
matrix size: 28 crout: 0.004001617431640625[s] doolittle: 0.009000301361083984[s] cholesky: 0.006000518798828125[s] numpy: 0.0009994506835937 5[s] scipy: 0.0009994506835937 5[s]
matrix size: 70 crout: 0.03200078010559082[s] doolittle: 0.07299947738647461[s] cholesky: 0.04599881721801 76[s] numpy: 0.003000974655151367[s] scipy: 0.003000020980834961[s]
matrix size: 92 crout: 0.059999704360961914[s] doolittle: 0.14699935913085938[s] cholesky: 0.09400105476379395[s] numpy: 0.003998756408691406[s] scipy: 0.004001140594482422[s]
matrix size: 90 crout: 0.059000492095947266[s] doolittle: 0.13899970054626465[s] cholesky: 0.0839986801147461[s] numpy: 0.004999876022338867[s] scipy: 0.004001379013061523 4[s]
matrix size: 96 crout: 0.069000244140625[s] doolittle: 0.16105318069458008[s] cholesky: 0.0969994068145752[s] numpy: 0.002999544143676758[s] scipy: 0.004018783569335937 5[s]
matrix size: 62 crout: 0.0260007381439209[s] doolittle: 0.059027910232543945[s] cholesky: 0.03497028350830078[s] numpy: 0.003000020980834961[s] scipy: 0.002001285552978516 2[s]
matrix size: 64 crout: 0.024999141693115234[s] doolittle: 0.0580012798309326 2[s] cholesky: 0.03799986839294433 6[s] numpy: 0.002000331878662109 4[s] scipy: 0.002999305725097656 2[s]
matrix size: 93 crout: 0.08799934387207031[s] doolittle: 0.1510016918182373[s] cholesky: 0.09199714660644531[s] numpy: 0.004002571105957031[s] scipy: 0.003998279571533203[s]
matrix size: 73 crout: 0.03600168228149414[s] doolittle: 0.08199858665466309[s] cholesky: 0.05099987983703613[s] numpy: 0.0019998186111450 1953[s] scipy: 0.003001928329467773 4[s]
matrix size: 68 crout: 0.03200030326843262[s] doolittle: 0.06799840927124023[s] cholesky: 0.04300022125244 1406[s] numpy: 0.003002643585205078[s] scipy: 0.002998352050781 25[s]
matrix size: 70 crout: 0.03299880027770996[s] doolittle: 0.07400345802307129[s] cholesky: 0.04499912261962890 6[s] numpy: 0.002997398376464843 8[s] scipy: 0.003001689910888672[s]
matrix size: 36 crout: 0.007997989654541016[s] doolittle: 0.016002416610717773[s] cholesky: 0.009998798370361328[s] numpy: 0.0010013580322265625[s] scipy: 0.001998901367 1875[s]
matrix size: 27 crout: 0.0049991607666015625[s] doolittle: 0.008001327514648438[s] cholesky: 0.006000280380249023 4[s] numpy: 0.0009996891021728516[s] scipy: 0.0010013580322265625[s]
matrix size: 74 crout: 0.04880094528198242[s] doolittle: 0.096999168395996 1[s] cholesky: 0.05200099945068359 4[s] numpy: 0.0019986629486083984[s] scipy: 0.003001451492309570 3[s]

matrix size: 96 crout: 0.0690000057220459[s] doolittle: 0.19300007820129395[s] cholesky: 0.09799981117248535[s] numpy: 0.003999948501586914[s] scipy: 0.0039985517990112305[s]
matrix size: 57 crout: 0.021001338958740234[s] doolittle: 0.04399871826171875[s] cholesky: 0.029000520706176758[s] numpy: 0.0029983520507812 5[s] scipy: 0.002001047134399414[s]
matrix size: 71 crout: 0.03399991989135742[s] doolittle: 0.07600021362304688[s] cholesky: 0.04899883270263672[s] numpy: 0.0030028820037841797[s] scipy: 0.0030014514923095703[s]
matrix size: 43 crout: 0.012997388839721 68[s] doolittle: 0.020999431610107422[s] cholesky: 0.014998912811279297[s] numpy: 0.002002392272949 22[s] scipy: 0.0019991397857666016[s]
matrix size: 27 crout: 0.0040013790130615234[s] doolittle: 0.0089991092681884 77[s] cholesky: 0.006997823715209961[s] numpy: 0.0010011196136474 61[s] scipy: 0.0009989738464355469[s]
matrix size: 71 crout: 0.033002614974975586[s] doolittle: 0.07399868965148926[s] cholesky: 0.04599976539611816 4[s] numpy: 0.003000974655151367[s] scipy: 0.0029993057250976562[s]
matrix size: 61 crout: 0.023998737335205078[s] doolittle: 0.05100131034851074[s] cholesky: 0.03300023078918457[s] numpy: 0.0019979476928710938[s] scipy: 0.0020020008087158203[s]
matrix size: 56 crout: 0.019000768661499023[s] doolittle: 0.04199886322021 4844[s] cholesky: 0.026999473571777344[s] numpy: 0.002000093460083008[s] scipy: 0.002000093460083008[s]
matrix size: 46 crout: 0.012999534606933594[s] doolittle: 0.02900028228759 7656[s] cholesky: 0.018002748489379883[s] numpy: 0.001997232437133789[s] scipy: 0.0030002593994140625[s]
matrix size: 63 crout: 0.02597522735595703[s] doolittle: 0.05600118637084961[s] cholesky: 0.03599739074707031[s] numpy: 0.0019998550415039062[s] scipy: 0.0030019283294677734[s]
matrix size: 68 crout: 0.03099966049194336[s] doolittle: 0.06699991226196289[s] cholesky: 0.04300045967102051[s] numpy: 0.0029985904693603516[s] scipy: 0.0029995441436767 58[s]
matrix size: 69 crout: 0.03199911117553711[s] doolittle: 0.07100129127502441[s] cholesky: 0.0429997444152832[s] numpy: 0.0019991397857666016[s] scipy: 0.0030009746551513 67[s]
matrix size: 44 crout: 0.012001037597656 25[s] doolittle: 0.02399897575378418[s] cholesky: 0.01600027084350586[s] numpy: 0.001001596450805664[s] scipy: 0.0019979476928710938[s]
matrix size: 69 crout: 0.029999256134033203[s] doolittle: 0.07000064849853516[s] cholesky: 0.04500055313110351 6[s] numpy: 0.002999544143676758[s] scipy: 0.003000497817993164[s]
matrix size: 49 crout: 0.014999628067016602[s] doolittle: 0.03000092506408 6914[s] cholesky: 0.02099847793579101 6[s] numpy: 0.0020003318786621094[s] scipy: 0.002001047134399414[s]
matrix size: 62 crout: 0.024999856948852 54[s] doolittle: 0.05499911308288574[s] cholesky: 0.03600168228149414[s] numpy: 0.002999544143676758[s] scipy: 0.002000093460083008[s]
matrix size: 44 crout: 0.010998487472534 18[s] doolittle: 0.02300024032592 7734[s] cholesky: 0.01600122451782226 6[s] numpy: 0.001998901367187 5[s] scipy: 0.0010008811950683594[s]
matrix size: 86 crout: 0.053000211715698 24[s] doolittle: 0.12799906730651855[s] cholesky: 0.07400059700012207[s] numpy: 0.0030014514923095703[s] scipy: 0.0029990673065185547[s]
matrix size: 88 crout: 0.054999828338623 05[s] doolittle: 0.13300037384033203[s] cholesky: 0.0819997787475586[s] numpy: 0.003000974655151367[s] scipy: 0.0039989482782705 08[s]
matrix size: 64 crout: 0.027999401092529297[s] doolittle: 0.05800127983093262[s] cholesky: 0.03599882125854492[s] numpy: 0.0019996166229248047[s] scipy: 0.0030026435852050 78[s]
matrix size: 76 crout: 0.038000345230102 54[s] doolittle: 0.08999848365783691[s] cholesky: 0.0559999942779541[s] numpy: 0.0030014514923095703[s] scipy: 0.002998352050781 25[s]
matrix size: 79 crout: 0.045002222061157 23[s] doolittle: 0.10205364227294922[s] cholesky: 0.06194448471069336[s] numpy: 0.004001617431640625[s] scipy: 0.0049989223480224 61[s]
matrix size: 74 crout: 0.041999816894531 25[s] doolittle: 0.08702564239501953[s] cholesky: 0.05397534370422363[s] numpy: 0.003000020980834961[s] scipy: 0.0030004978179931 64[s]
matrix size: 25 crout: 0.002998113632202 1484[s] doolittle: 0.00800323486328125[s] cholesky: 0.006003379821777344[s] numpy: 0.0009946823120117188[s] scipy: 0.0[s]
matrix size: 80 crout: 0.044000625610351 56[s] doolittle: 0.10799980163574219[s] cholesky: 0.06399869918823242[s] numpy: 0.004000425338745117[s] scipy: 0.0039999485015869 14[s]
matrix size: 24 crout: 0.003000736236572 2656[s] doolittle: 0.006999492645263672[s] cholesky: 0.005999803543090 82[s] numpy: 0.0010008811950683594[s] scipy: 0.0009989738464355469[s]
matrix size: 40 crout: 0.010001182556152344[s] doolittle: 0.01999807357788086[s] cholesky: 0.01300144195556640 6[s] numpy: 0.0020003318786621094[s] scipy: 0.0020031929016113 28[s]
matrix size: 72 crout: 0.035973787307739 26[s] doolittle: 0.07899785041809082[s] cholesky: 0.04700279235839844[s] numpy: 0.003999471664428711[s] scipy: 0.0029988288879394 53[s]
matrix size: 70 crout: 0.033000707626342 77[s] doolittle: 0.07099986076354 98[s] cholesky: 0.04400110244750976 6[s] numpy: 0.0029990673065185547[s] scipy: 0.0029988288879394 53[s]
matrix size: 62 crout: 0.025000333786010742[s] doolittle: 0.05999704360961914[s] cholesky: 0.03499841690063476 6[s] numpy: 0.0029990673065185547[s] scipy: 0.0020024776458740234[s]
matrix size: 57 crout: 0.020999670028686523[s] doolittle: 0.04400086402893066 4[s] cholesky: 0.02999971389770508[s] numpy: 0.0019996166229248047[s] scipy: 0.0019991397857666016[s]

matrix size: 67 crout: 0.030998945236206055[s] doolittle: 0.06699967384338379[s] cholesky: 0.04400157928466797[s] numpy: 0.0029997825622558594[s] scipy: 0.0019989013671875[s]
matrix size: 60 crout: 0.026001691818237305[s] doolittle: 0.05099773406982422[s] cholesky: 0.032003164291381836[s] numpy: 0.003000497817993164[s] scipy: 0.0029969215393066406[s]
matrix size: 95 crout: 0.07100033760070801[s] doolittle: 0.18000078201293945[s] cholesky: 0.0989999771118164[s] numpy: 0.005000591278076172[s] scipy: 0.0039985179901123 05[s]
matrix size: 20 crout: 0.0020003318786621094[s] doolittle: 0.0040013790130615234[s] cholesky: 0.003000974655151367[s] numpy: 0.0009984970092773438[s] scipy: 0.0010008811950683594[s]
matrix size: 40 crout: 0.009999990463256836[s] doolittle: 0.020999431610107422[s] cholesky: 0.01300001144409179 7[s] numpy: 0.0009994506835937 5[s] scipy: 0.0019989013671875[s]
matrix size: 56 crout: 0.020000219345092773[s] doolittle: 0.04300069808959961[s] cholesky: 0.026999473571777344[s] numpy: 0.0030002593994140625[s] scipy: 0.003000974655151367[s]
matrix size: 46 crout: 0.013998985290527344[s] doolittle: 0.027022361755371094[s] cholesky: 0.018976926803588867[s] numpy: 0.0020020008087158203[s] scipy: 0.0009994506835937 5[s]
matrix size: 56 crout: 0.02000117301940918[s] doolittle: 0.04099822044372558 6[s] cholesky: 0.02700018882751465[s] numpy: 0.0019996166229248047[s] scipy: 0.002000093460083008[s]
matrix size: 54 crout: 0.01800060272216797[s] doolittle: 0.03800058364868164[s] cholesky: 0.024998903274536133[s] numpy: 0.0019986629486083984[s] scipy: 0.0020008087158203125[s]
matrix size: 50 crout: 0.0149993896484375[s] doolittle: 0.03300213813781738[s] cholesky: 0.020998477935791016[s] numpy: 0.002000570297241211[s] scipy: 0.0010020732879638672[s]
matrix size: 85 crout: 0.04900050163269043[s] doolittle: 0.11800003051757812[s] cholesky: 0.07199954986572266[s] numpy: 0.002998828887939453[s] scipy: 0.0030012130737304688[s]
matrix size: 85 crout: 0.05099940299987793[s] doolittle: 0.11800146102905273[s] cholesky: 0.0709996223449707[s] numpy: 0.003000974655151367[s] scipy: 0.0029993057250976562[s]
matrix size: 43 crout: 0.012001514434814453[s] doolittle: 0.021996498107910156[s] cholesky: 0.01600265502929687 5[s] numpy: 0.0009994506835937 5[s] scipy: 0.0019998550415039062[s]
matrix size: 57 crout: 0.021000862121582 03[s] doolittle: 0.04399776458740234 4[s] cholesky: 0.03000187873840332[s] numpy: 0.0019986629486083984[s] scipy: 0.001999378204345703[s]
matrix size: 83 crout: 0.045998573303222656[s] doolittle: 0.11300230026245117[s] cholesky: 0.06799936294555664[s] numpy: 0.006000280380249023 4[s] scipy: 0.0029995441436767 58[s]
matrix size: 81 crout: 0.04600119590759277[s] doolittle: 0.10799860954284668[s] cholesky: 0.06300044059753418[s] numpy: 0.0029983520507812 5[s] scipy: 0.0040013790130615234[s]
matrix size: 53 crout: 0.016998767852783203[s] doolittle: 0.03600311279296875[s] cholesky: 0.02301931381225586[s] numpy: 0.0019776821136474 61[s] scipy: 0.0020017623901367188[s]
matrix size: 44 crout: 0.010998725891113281[s] doolittle: 0.02300214767456054 7[s] cholesky: 0.016998529434204 1[s] numpy: 0.002001285552978515 6[s] scipy: 0.0009992122650146484[s]
matrix size: 97 crout: 0.0709998607635498[s] doolittle: 0.16700005531311035[s] cholesky: 0.10300087928771973[s] numpy: 0.0049991607666015625[s] scipy: 0.0039992332458496 09[s]
matrix size: 45 crout: 0.013000726699829102[s] doolittle: 0.02500057220458984 4[s] cholesky: 0.015998363494873047[s] numpy: 0.002000093460083008[s] scipy: 0.0020015239715576 17[s]
matrix size: 84 crout: 0.05099844932556152[s] doolittle: 0.11300110816955566[s] cholesky: 0.07199907302856445[s] numpy: 0.0029997825622558594[s] scipy: 0.0040011405944824 22[s]
matrix size: 58 crout: 0.022998571395874023[s] doolittle: 0.04700016975402832[s] cholesky: 0.02900028228759765 6[s] numpy: 0.003001689910888672[s] scipy: 0.001999378204345703[s]
matrix size: 77 crout: 0.0410001277923584[s] doolittle: 0.09200048446655273[s] cholesky: 0.05699801445007324[s] numpy: 0.003000020980834961[s] scipy: 0.0040013790130615234[s]
matrix size: 64 crout: 0.026000022888183594[s] doolittle: 0.06011962890625[s] cholesky: 0.04099988937377 93[s] numpy: 0.003999710083007 8125[s] scipy: 0.0029993057250976562[s]
matrix size: 57 crout: 0.021000146865844727[s] doolittle: 0.04199910163879394 5[s] cholesky: 0.028002023696899414[s] numpy: 0.0019981861114501953[s] scipy: 0.003000974655151367[s]
matrix size: 88 crout: 0.0560002326965332[s] doolittle: 0.13300013542175293[s] cholesky: 0.07899808883666992[s] numpy: 0.003001213073730468 8[s] scipy: 0.0040006637573242 19[s]
matrix size: 84 crout: 0.04799938201904297[s] doolittle: 0.1155843734741211[s] cholesky: 0.07000041007995605[s] numpy: 0.003000736236572265 6[s] scipy: 0.0039982795715332 03[s]
matrix size: 28 crout: 0.003999948501586914[s] doolittle: 0.010001182556152344[s] cholesky: 0.006000757217407226 6[s] numpy: 0.000998973846435546 9[s] scipy: 0.0010001659393310547[s]
matrix size: 39 crout: 0.010998249053955078[s] doolittle: 0.018002748489379883[s] cholesky: 0.012998342514038086[s] numpy: 0.0009994506835937 5[s] scipy: 0.0020012855529785156[s]
matrix size: 81 crout: 0.04699897766113281[s] doolittle: 0.10500001907348633[s] cholesky: 0.06700134277343 75[s] numpy: 0.003999471664428711[s] scipy: 0.0040001869201660 16[s]
matrix size: 73 crout: 0.03699922561645508[s] doolittle: 0.08100008964538574[s] cholesky: 0.05199646949768066 4[s] numpy: 0.003000736236572265 6[s] scipy: 0.0029997825622558594[s]

matrix size: 76 crout: 0.04000139236450195[s] doolittle: 0.08999776840209961[s] cholesky: 0.0540008544921875[s] numpy: 0.002999544143676758[s] scipy: 0.004000425338745117[s]
matrix size: 47 crout: 0.013002634048461914[s] doolittle: 0.027997970581054688[s] cholesky: 0.018999814987182617[s] numpy: 0.002000093460083008[s] scipy: 0.0010013580322265625[s]
matrix size: 51 crout: 0.015998125076293945[s] doolittle: 0.03300309181213379[s] cholesky: 0.021999120712280273[s] numpy: 0.001998424530029297[s] scipy: 0.0019991397857666016[s]
matrix size: 85 crout: 0.06299471855163574[s] doolittle: 0.12100100517272949[s] cholesky: 0.07500147819519043[s] numpy: 0.004000425338745117[s] scipy: 0.0029985904693603516[s]
matrix size: 49 crout: 0.01699686050415039[s] doolittle: 0.031000614166259766[s] cholesky: 0.02099431610107422[s] numpy: 0.0030014514923095703[s] scipy: 0.0019991397857666016[s]
matrix size: 52 crout: 0.018000364303588867[s] doolittle: 0.03600311279296875[s] cholesky: 0.02599668502807617 2[s] numpy: 0.0020003318786621094[s] scipy: 0.002002716064453125[s]
matrix size: 83 crout: 0.0489959716796875[s] doolittle: 0.13300204277038574[s] cholesky: 0.06799888610839844[s] numpy: 0.003999948501586914[s] scipy: 0.00200057029724121 1[s]
matrix size: 35 crout: 0.007999420166015625[s] doolittle: 0.016012191772460938[s] cholesky: 0.009998559951782227[s] numpy: 0.0009980201721191406[s] scipy: 0.001003265380859375[s]
matrix size: 90 crout: 0.0579969882965087 9[s] doolittle: 0.13600516319274902[s] cholesky: 0.08199715614318848[s] numpy: 0.004997491836547851 6[s] scipy: 0.004002094268798828[s]
matrix size: 20 crout: 0.002000570297241211[s] doolittle: 0.0050003528594970 7[s] cholesky: 0.0029997825622558594[s] numpy: 0.0009999275207519531[s] scipy: 0.0[s]
matrix size: 30 crout: 0.008001565933227539[s] doolittle: 0.011996746063232422[s] cholesky: 0.009002447128295898[s] numpy: 0.001998186111450195 3[s] scipy: 0.0010020732879638672[s]
matrix size: 41 crout: 0.009999036788940 43[s] doolittle: 0.020999908447265625[s] cholesky: 0.014000654220581055[s] numpy: 0.001000165939331054 7[s] scipy: 0.001997709274291992[s]
matrix size: 52 crout: 0.018001317977905273[s] doolittle: 0.035000324249267 58[s] cholesky: 0.02302694320678711[s] numpy: 0.002975225448608398 4[s] scipy: 0.0019974708557128906[s]
matrix size: 33 crout: 0.005001068115234375[s] doolittle: 0.013999223709106445[s] cholesky: 0.010014057159423828[s] numpy: 0.001986742019653320 3[s] scipy: 0.0010025501251220703[s]
matrix size: 95 crout: 0.069999933242797 85[s] doolittle: 0.17499732971191406[s] cholesky: 0.11200189590454102[s] numpy: 0.006999254226684 57[s] scipy: 0.003997325897216797[s]
matrix size: 99 crout: 0.078001022338867 19[s] doolittle: 0.19899892807006836[s] cholesky: 0.127824068069458[s] numpy: 0.004000186920166016[s] scipy: 0.0050008296966552734[s]
matrix size: 85 crout: 0.055999279022216 8[s] doolittle: 0.12400197982788086[s] cholesky: 0.07816290855407715[s] numpy: 0.003001451492309570 3[s] scipy: 0.003997325897216797[s]
matrix size: 44 crout: 0.013005495071411133[s] doolittle: 0.024994850158691406[s] cholesky: 0.017003774642944336[s] numpy: 0.001999139785766601 6[s] scipy: 0.000997781753540039[s]
matrix size: 98 crout: 0.074999570846557 62[s] doolittle: 0.1801745891571045[s] cholesky: 0.44805026054382324[s] numpy: 0.29430246353149414[s] scipy: 0.04399847984313965[s]
matrix size: 35 crout: 0.023001432418823242[s] doolittle: 0.06799793243408203[s] cholesky: 0.35113048553466797[s] numpy: 0.009029865264892578[s] scipy: 0.004960775375366211[s]
matrix size: 98 crout: 0.131774663925170 9[s] doolittle: 0.315274715423584[s] cholesky: 0.19099688529968262[s] numpy: 0.006006713562011 72[s] scipy: 0.007990837097167969[s]
matrix size: 61 crout: 0.034996986389160156[s] doolittle: 0.08800816535949707[s] cholesky: 0.06202030181884765 6[s] numpy: 0.004996776580810547[s] scipy: 0.002974987030029297[s]
matrix size: 44 crout: 0.018006801605224 61[s] doolittle: 0.045010089874267 58[s] cholesky: 0.03398323059082031[s] numpy: 0.001001119613647461[s] scipy: 0.0010004043579101562[s]
matrix size: 48 crout: 0.024013280868530273[s] doolittle: 0.04802513122558594[s] cholesky: 0.022962093353271484[s] numpy: 0.002000570297241211[s] scipy: 0.003001689910888672[s]
matrix size: 37 crout: 0.006995677947998047[s] doolittle: 0.018006324768066406[s] cholesky: 0.011993408203125[s] numpy: 0.001002311706542968 8[s] scipy: 0.0019986629486083984[s]
matrix size: 65 crout: 0.043639898300170 9[s] doolittle: 0.101905584335327 15[s] cholesky: 0.04700446128845215[s] numpy: 0.002998113632202148 4[s] scipy: 0.003998994827270508[s]
matrix size: 30 crout: 0.005003929138183594[s] doolittle: 0.014003992080688477[s] cholesky: 0.008996963500976562[s] numpy: 0.000996828079223632 8[s] scipy: 0.0009994506835937 5[s]
matrix size: 47 crout: 0.017999649047851562[s] doolittle: 0.036001205444335 94[s] cholesky: 0.022005319595336914[s] numpy: 0.002013921737670898 4[s] scipy: 0.002982854843139648 4[s]
matrix size: 91 crout: 0.097041130065917 97[s] doolittle: 0.228008270263671 88[s] cholesky: 0.13900184631347656[s] numpy: 0.002986192703247070 3[s] scipy: 0.004001379013061523 4[s]
matrix size: 83 crout: 0.057002782821655 27[s] doolittle: 0.158008337020874 02[s] cholesky: 0.1129903793334961[s] numpy: 0.003998517990112305[s] scipy: 0.002999782562255859 4[s]
matrix size: 57 crout: 0.027001619338989258[s] doolittle: 0.06200218200683594[s] cholesky: 0.0429997444152832[s] numpy: 0.005998611450195312 5[s] scipy: 0.005004644393920898 4[s]

matrix size: 77 crout: 0.06999564170837402[s] doolittle: 0.1510012149810791[s] cholesky: 0.08300018310546875[s] numpy: 0.003000497817993164[s] scipy: 0.0050156116485595 7[s]
matrix size: 28 crout: 0.005974054336547851 6[s] doolittle: 0.01500201225280761 7[s] cholesky: 0.007003068923950195[s] numpy: 0.002007007598876953[s] scipy: 0.0009841918945312 5[s]
matrix size: 69 crout: 0.03500699996948242[s] doolittle: 0.12399482727050781[s] cholesky: 0.11600327491760254[s] numpy: 0.011008024215698242[s] scipy: 0.0055463314056396484[s]
matrix size: 74 crout: 0.06797313690185547[s] doolittle: 0.2070019245147705[s] cholesky: 0.12885546684265137[s] numpy: 0.006015062332153 32[s] scipy: 0.007983446121215 82[s]
matrix size: 47 crout: 0.029001951217651367[s] doolittle: 0.05199289321899414[s] cholesky: 0.03469181060791 0156[s] numpy: 0.0019991397857666016[s] scipy: 0.0020024776458740234[s]
matrix size: 63 crout: 0.04900074005126953[s] doolittle: 0.10706591606140137[s] cholesky: 0.07513785362243652[s] numpy: 0.003994941711425781[s] scipy: 0.027653694152832 03[s]
matrix size: 43 crout: 0.03099799156188965[s] doolittle: 0.0451352596282959[s] cholesky: 0.03198146820068359 4[s] numpy: 0.0019974708557128906[s] scipy: 0.0010001659393310547[s]
matrix size: 26 crout: 0.0030002593994140625[s] doolittle: 0.00800061225891113 3[s] cholesky: 0.005001306533813476 6[s] numpy: 0.0[s] scipy: 0.0009977817535400 39[s]
matrix size: 44 crout: 0.02455759048461914[s] doolittle: 0.04250621795654297[s] cholesky: 0.02700114250183105 5[s] numpy: 0.0030031204223632812[s] scipy: 0.0020008087158203125[s]
matrix size: 60 crout: 0.03599691390991211[s] doolittle: 0.09100675582885742[s] cholesky: 0.04299163818359375[s] numpy: 0.0030012130737304688[s] scipy: 0.012002229690551758[s]
matrix size: 34 crout: 0.008001327514648438[s] doolittle: 0.017013549804687 5[s] cholesky: 0.017496109008789062[s] numpy: 0.002000093460083008[s] scipy: 0.0010001659393310547[s]
matrix size: 72 crout: 0.05802488327026367[s] doolittle: 0.15598797798156738[s] cholesky: 0.07299327850341797[s] numpy: 0.01299905776977539[s] scipy: 0.008994817733764648[s]
matrix size: 82 crout: 0.08897757530212402[s] doolittle: 0.16000056266784668[s] cholesky: 0.09901571273803711[s] numpy: 0.004980802536010742[s] scipy: 0.0030016899108886 72[s]
matrix size: 51 crout: 0.020015716552734375[s] doolittle: 0.046984195709228516[s] cholesky: 0.029006481170654297[s] numpy: 0.002007246017456054 7[s] scipy: 0.0019853115081787 11[s]
matrix size: 58 crout: 0.03200268745422363[s] doolittle: 0.06501221656799316[s] cholesky: 0.03198695182800293[s] numpy: 0.0019965171813964844[s] scipy: 0.0030486583709716797[s]
matrix size: 91 crout: 0.08398103713989258[s] doolittle: 0.21500158309936523[s] cholesky: 0.1597743034362793[s] numpy: 0.004000186920166016[s] scipy: 0.0050258636474609375[s]
matrix size: 66 crout: 0.04501032829284668[s] doolittle: 0.08949160575866699[s] cholesky: 0.05200338363647461[s] numpy: 0.004001140594482422[s] scipy: 0.0039968490600585 94[s]
matrix size: 28 crout: 0.00800943374633789[s] doolittle: 0.012992382049560547[s] cholesky: 0.005944728851318359[s] numpy: 0.000997781753540039[s] scipy: 0.0010018348693847656[s]
matrix size: 44 crout: 0.012003660202026367[s] doolittle: 0.029993295669555664[s] cholesky: 0.017005205154418945[s] numpy: 0.000995397567749023 4[s] scipy: 0.0020010471343994 14[s]
matrix size: 21 crout: 0.003997802734375[s] doolittle: 0.007016658782958984[s] cholesky: 0.003982782363891601 6[s] numpy: 0.0009989738464355469[s] scipy: 0.0010011196136474 61[s]
matrix size: 37 crout: 0.011999130249023438[s] doolittle: 0.01840376853942871[s] cholesky: 0.017004013061523438[s] numpy: 0.000995874404907226 6[s] scipy: 0.0020003318786621094[s]
matrix size: 41 crout: 0.009999752044677734[s] doolittle: 0.021000862121582 03[s] cholesky: 0.017998695373535156[s] numpy: 0.002000093460083008[s] scipy: 0.002006053924560547[s]
matrix size: 79 crout: 0.048996925354003906[s] doolittle: 0.12820839881896973[s] cholesky: 0.08100080490112305[s] numpy: 0.003999233245849609[s] scipy: 0.0050065514255371 1[s]
matrix size: 53 crout: 0.019994497299194336[s] doolittle: 0.039003849029541016[s] cholesky: 0.02999711036682129[s] numpy: 0.001998901367187 5[s] scipy: 0.0029997825622558594[s]
matrix size: 72 crout: 0.03800296783447265 6[s] doolittle: 0.10799789428710938[s] cholesky: 0.06300020217895508[s] numpy: 0.003002643585205078[s] scipy: 0.0019967555999755 86[s]
matrix size: 48 crout: 0.013998508453369 14[s] doolittle: 0.03699803352355957[s] cholesky: 0.02300262451171875[s] numpy: 0.001998662948608398 4[s] scipy: 0.0030267238616943 36[s]
matrix size: 26 crout: 0.006973505020141601 6[s] doolittle: 0.01600503921508789[s] cholesky: 0.008008480072021484[s] numpy: 0.000987291336059570 3[s] scipy: 0.0010008811950683594[s]
matrix size: 71 crout: 0.05499839782714844[s] doolittle: 0.10399961471557617[s] cholesky: 0.05700445175170898 4[s] numpy: 0.004998922348022461[s] scipy: 0.0049982070922851 56[s]
matrix size: 78 crout: 0.06199669837951 66[s] doolittle: 0.11200261116027832[s] cholesky: 0.0740044116973877[s] numpy: 0.00701904296875[s] scipy: 0.0049798488616943 36[s]
matrix size: 84 crout: 0.06400513648986816[s] doolittle: 0.13701581954956055[s] cholesky: 0.07962751388549805[s] numpy: 0.002997159576857 42[s] scipy: 0.0040028095245361 33[s]
matrix size: 22 crout: 0.001974821090698242[s] doolittle: 0.00899958610534668[s] cholesky: 0.004998445510864258[s] numpy: 0.001001834869384765 6[s] scipy: 0.0010061264038085938[s]

matrix size: 85 crout: 0.06356048583984375[s] doolittle: 0.13300132751464844[s] cholesky: 0.10604071617126465[s] numpy: 0.003957509994506836[s] scipy: 0.0030012130737304688[s]
matrix size: 32 crout: 0.006006002426147461[s] doolittle: 0.018996715545654297[s] cholesky: 0.013014078140258789[s] numpy: 0.0030035972595214844[s] scipy: 0.0030019283294677734[s]
matrix size: 62 crout: 0.04900360107421875[s] doolittle: 0.08301782608032227[s] cholesky: 0.04297494888305664[s] numpy: 0.003005504608154297[s] scipy: 0.0029964447021484375[s]
matrix size: 33 crout: 0.005997896194458008[s] doolittle: 0.013005971908569336[s] cholesky: 0.009996414184570312[s] numpy: 0.0009989738464355469[s] scipy: 0.000997781753540039[s]
matrix size: 93 crout: 0.09099507331848145[s] doolittle: 0.23600029945373535[s] cholesky: 0.1260075569152832[s] numpy: 0.002994060516357422[s] scipy: 0.0039989948272705078[s]
matrix size: 99 crout: 0.09900069236755371[s] doolittle: 0.22900104522705078[s] cholesky: 0.17708396911621094[s] numpy: 0.004997968673706055[s] scipy: 0.0049989223480224609[s]
matrix size: 95 crout: 0.0860128402709961[s] doolittle: 0.20899200439453125[s] cholesky: 0.12200069427490234[s] numpy: 0.014998435974121094[s] scipy: 0.026998281478881836[s]
matrix size: 66 crout: 0.08370518684387207[s] doolittle: 0.33466315269470215[s] cholesky: 0.19134306907653809[s] numpy: 0.04707646369934082[s] scipy: 0.009009599685668945[s]
matrix size: 68 crout: 0.08358049392700195[s] doolittle: 0.11799931526184082[s] cholesky: 0.1060020923614502[s] numpy: 0.02799701690673828[s] scipy: 0.007017850875854492[s]
matrix size: 59 crout: 0.07868480682373047[s] doolittle: 0.1080012321472168[s] cholesky: 0.0726010799407959[s] numpy: 0.002991914749145508[s] scipy: 0.005014181137084961[s]
matrix size: 32 crout: 0.004987478256225586[s] doolittle: 0.02056264877319336[s] cholesky: 0.008977651596069336[s] numpy: 0.001001596450805664[s] scipy: 0.0009989738464355469[s]
matrix size: 86 crout: 0.06981658935546875[s] doolittle: 0.17057013511657715[s] cholesky: 0.12300705909729004[s] numpy: 0.007993459701538086[s] scipy: 0.014009714126586914[s]
matrix size: 61 crout: 0.05152416229248047[s] doolittle: 0.07052350044250488[s] cholesky: 0.04350209236145019[s] numpy: 0.0039975643157958984[s] scipy: 0.0019979476928710938[s]
matrix size: 59 crout: 0.0339992046356201[s] doolittle: 0.0765233039855957[s] cholesky: 0.03799915313720703[s] numpy: 0.001999378204345703[s] scipy: 0.003003358840942383[s]
matrix size: 51 crout: 0.02299809455871582[s] doolittle: 0.04553318023681641[s] cholesky: 0.02256631851196289[s] numpy: 0.002000093460083008[s] scipy: 0.001999378204345703[s]
matrix size: 39 crout: 0.009998083114624023[s] doolittle: 0.026609182357788086[s] cholesky: 0.013978004455566406[s] numpy: 0.0010001659393310547[s] scipy: 0.0020020008087158203[s]
matrix size: 83 crout: 0.06900215148925781[s] doolittle: 0.1378321647644043[s] cholesky: 0.08700037002563477[s] numpy: 0.003997325897216797[s] scipy: 0.0070018768310546875[s]
matrix size: 69 crout: 0.03795766830444336[s] doolittle: 0.09800076484680176[s] cholesky: 0.05300569534301758[s] numpy: 0.002994060516357422[s] scipy: 0.007023096084594726[s]
matrix size: 72 crout: 0.04696989059448242[s] doolittle: 0.09399962425231934[s] cholesky: 0.04999828338623047[s] numpy: 0.00502324104309082[s] scipy: 0.008980751037597656[s]
matrix size: 76 crout: 0.04298138618469238[s] doolittle: 0.10799241065979004[s] cholesky: 0.06599831581115723[s] numpy: 0.00400233268737793[s] scipy: 0.0029997825622558594[s]
matrix size: 86 crout: 0.059003591537475586[s] doolittle: 0.1419990062713623[s] cholesky: 0.08199715614318848[s] numpy: 0.005000591278076172[s] scipy: 0.003998279571533203[s]
matrix size: 53 crout: 0.02100491523742676[s] doolittle: 0.03799748420715332[s] cholesky: 0.031996726989746094[s] numpy: 0.0009987354278564453[s] scipy: 0.0020017623901367188[s]
matrix size: 65 crout: 0.03000020980834961[s] doolittle: 0.07499909400939941[s] cholesky: 0.042000770568847656[s] numpy: 0.0049991607666015625[s] scipy: 0.003000259399414062[s]
matrix size: 21 crout: 0.0019991397857666016[s] doolittle: 0.005003452301025391[s] cholesky: 0.003998041152954102[s] numpy: 0.0009999275207519531[s] scipy: 0.0009996891021728516[s]
matrix size: 38 crout: 0.010009288787841797[s] doolittle: 0.022989988327026367[s] cholesky: 0.013000726699829102[s] numpy: 0.0010039806365966797[s] scipy: 0.0009984970092773438[s]
matrix size: 74 crout: 0.04700016975402832[s] doolittle: 0.09212040901184082[s] cholesky: 0.05787825584411621[s] numpy: 0.004008531570434570[s] scipy: 0.002992868423461914[s]
matrix size: 58 crout: 0.02200603485107422[s] doolittle: 0.04999399185180664[s] cholesky: 0.03700113296508789[s] numpy: 0.0029985904693603516[s] scipy: 0.0019989013671875[s]
matrix size: 54 crout: 0.01700115203857422[s] doolittle: 0.04499983787536621[s] cholesky: 0.02499747276306152[s] numpy: 0.002012491226196289[s] scipy: 0.0029883384704589844[s]
matrix size: 84 crout: 0.05698680877685547[s] doolittle: 0.1379992961883545[s] cholesky: 0.08300185203552246[s] numpy: 0.00800013542175293[s] scipy: 0.005019426345825195[s]
matrix size: 67 crout: 0.0339808464050293[s] doolittle: 0.09400296211242676[s] cholesky: 0.053994178771972656[s] numpy: 0.0030012130737304688[s] scipy: 0.005002260208129883[s]
matrix size: 88 crout: 0.0669760704040527[s] doolittle: 0.166533946990966[s] cholesky: 0.09197807312011719[s] numpy: 0.0039975643157958984[s] scipy: 0.006020307540893555[s]

matrix size: 37 crout: 0.013029336929321289[s] doolittle: 0.018950462341308594[s] cholesky: 0.013002872467041016[s] numpy: 0.001994609832763672[s] scipy: 0.002001047134399414[s]
matrix size: 52 crout: 0.022001266479492188[s] doolittle: 0.04300832748413086[s] cholesky: 0.03199172019958496[s] numpy: 0.0029983520507812[s] scipy: 0.0019991397857666016[s]
matrix size: 29 crout: 0.005002975463867187[s] doolittle: 0.010001182556152344[s] cholesky: 0.007001399993896484[s] numpy: 0.0009994506835937[s] scipy: 0.0009996891021728516[s]
matrix size: 93 crout: 0.07799887657165527[s] doolittle: 0.1790006160736084[s] cholesky: 0.11200094223022461[s] numpy: 0.003997325897216797[s] scipy: 0.003997802734375[s]
matrix size: 52 crout: 0.016002893447875977[s] doolittle: 0.04999899864196777[s] cholesky: 0.02399992942810058[s] numpy: 0.003999471664428711[s] scipy: 0.002000570297241211[s]
matrix size: 97 crout: 0.09094858169555664[s] doolittle: 0.19800090789794922[s] cholesky: 0.10900068283081055[s] numpy: 0.005000352859497[s] scipy: 0.004001379013061523[s]
matrix size: 60 crout: 0.030002593994140625[s] doolittle: 0.055999755859375[s] cholesky: 0.03299856185913086[s] numpy: 0.0019981861114501953[s] scipy: 0.0030264854431152344[s]
matrix size: 37 crout: 0.007973670959472656[s] doolittle: 0.02300190925598145[s] cholesky: 0.011000871658325195[s] numpy: 0.002001047134399414[s] scipy: 0.0010013580322265625[s]
matrix size: 23 crout: 0.004000425338745117[s] doolittle: 0.00899815559387207[s] cholesky: 0.003995656967163086[s] numpy: 0.0[s] scipy: 0.0010011196136474[s]
matrix size: 83 crout: 0.06099128723144531[s] doolittle: 0.13100123405456543[s] cholesky: 0.07799744606018066[s] numpy: 0.004000902175903[s] scipy: 0.002999544143676758[s]
matrix size: 46 crout: 0.012967109680175781[s] doolittle: 0.029999017715454[s] cholesky: 0.020000696182250977[s] numpy: 0.0019979476928710938[s] scipy: 0.003162622451782226[s]
matrix size: 79 crout: 0.05601811408996582[s] doolittle: 0.12097930908203125[s] cholesky: 0.06400132179260254[s] numpy: 0.004998207092285156[s] scipy: 0.004001855850219726[s]
matrix size: 74 crout: 0.039996862411499023[s] doolittle: 0.10300564765930176[s] cholesky: 0.05900001525878906[s] numpy: 0.004022836685180664[s] scipy: 0.003975152969360351[s]
matrix size: 84 crout: 0.06999945640563965[s] doolittle: 0.13900089263916016[s] cholesky: 0.0800015926361084[s] numpy: 0.002994537353515625[s] scipy: 0.003002882003784179[s]
matrix size: 34 crout: 0.009000539779663086[s] doolittle: 0.01500082015991211[s] cholesky: 0.009998559951782227[s] numpy: 0.0010004043579101562[s] scipy: 0.0009970664978027344[s]
matrix size: 73 crout: 0.04800224304199219[s] doolittle: 0.08899617195129395[s] cholesky: 0.06000065803527832[s] numpy: 0.002997636795043945[s] scipy: 0.003004550933837890[s]
matrix size: 98 crout: 0.10599946975708008[s] doolittle: 0.20599889755249023[s] cholesky: 0.10499978065490723[s] numpy: 0.003999948501586914[s] scipy: 0.004997491836547851[s]
matrix size: 58 crout: 0.029000520706176758[s] doolittle: 0.04499983787536621[s] cholesky: 0.04199719429016113[s] numpy: 0.003002405166625976[s] scipy: 0.002998828887939453[s]
matrix size: 96 crout: 0.09499979019165039[s] doolittle: 0.20000147819519043[s] cholesky: 0.11399626731872559[s] numpy: 0.004003047943115234[s] scipy: 0.004998922348022461[s]
matrix size: 27 crout: 0.005002498626708984[s] doolittle: 0.010001897811889648[s] cholesky: 0.006996393203735351[s] numpy: 0.002002000808715820[s] scipy: 0.000998735427856445[s]
matrix size: 95 crout: 0.06800174713134766[s] doolittle: 0.17200183868408203[s] cholesky: 0.1130061149597168[s] numpy: 0.005000829696655273[s] scipy: 0.006998538970947266[s]
matrix size: 36 crout: 0.010004520416259766[s] doolittle: 0.016998291015625[s] cholesky: 0.011999607086181640[s] numpy: 0.001001119613647461[s] scipy: 0.001998662948608398[s]
matrix size: 23 crout: 0.002000093460083008[s] doolittle: 0.007001876831054687[s] cholesky: 0.004996061325073242[s] numpy: 0.001002311706542968[s] scipy: 0.0[s]
matrix size: 65 crout: 0.03799748420715332[s] doolittle: 0.06800150871276855[s] cholesky: 0.04600262641906738[s] numpy: 0.001999855041503906[s] scipy: 0.002998590469360351[s]
matrix size: 92 crout: 0.08704018592834473[s] doolittle: 0.174973249435424[s] cholesky: 0.09899997711181640[s] numpy: 0.002996444702148437[s] scipy: 0.005003929138183594[s]
matrix size: 21 crout: 0.0019989013671875[s] doolittle: 0.005997657775878906[s] cholesky: 0.003999710083007812[s] numpy: 0.0[s] scipy: 0.001002311706542968[s]
matrix size: 27 crout: 0.003003835678100586[s] doolittle: 0.009998559951782227[s] cholesky: 0.008999824523925781[s] numpy: 0.002994537353515625[s] scipy: 0.001032352447509765[s]
matrix size: 52 crout: 0.021999597549438477[s] doolittle: 0.03600144386291504[s] cholesky: 0.024995803833007812[s] numpy: 0.002000093460083008[s] scipy: 0.003002643585205078[s]
matrix size: 81 crout: 0.044999122619628906[s] doolittle: 0.12700223922729492[s] cholesky: 0.06699848175048828[s] numpy: 0.004000425338745117[s] scipy: 0.005001783370971680[s]
matrix size: 94 crout: 0.09199953079223633[s] doolittle: 0.18899893760681152[s] cholesky: 0.11200118064880371[s] numpy: 0.003998279571533203[s] scipy: 0.005000829696655273[s]
matrix size: 99 crout: 0.10899782180786133[s] doolittle: 0.22200322151184082[s] cholesky: 0.11799907684326172[s] numpy: 0.004997014999389648[s] scipy: 0.005002021789550781[s]

matrix size: 60 crout: 0.029999494552612305[s] doolittle: 0.06200051307678223[s] cholesky: 0.03499937057495117[s] numpy: 0.00200104713439941 4[s] scipy: 0.0031311511993408203[s]
matrix size: 21 crout: 0.0038688182830810547[s] doolittle: 0.005998373031616211[s] cholesky: 0.002999782562255859 4[s] numpy: 0.0[s] scipy: 0.0010035037994384766[s]
matrix size: 66 crout: 0.03799939155578613[s] doolittle: 0.07399868965148926[s] cholesky: 0.04599976539611816 4[s] numpy: 0.002001523971557617[s] scipy: 0.002998828887939453[s]
matrix size: 20 crout: 0.004001617431640625[s] doolittle: 0.003998041152954101 6[s] cholesky: 0.002998352050781 25[s] numpy: 0.0010013580322265625[s] scipy: 0.0[s]
matrix size: 33 crout: 0.008993864059448242[s] doolittle: 0.01400303840637207[s] cholesky: 0.008999347686767578[s] numpy: 0.0009987354278564453[s] scipy: 0.0009975433349609375[s]
matrix size: 29 crout: 0.006002187728881836[s] doolittle: 0.013005971908569336[s] cholesky: 0.006993532180786133[s] numpy: 0.0009996891021728516[s] scipy: 0.0009984970092773438[s]
matrix size: 81 crout: 0.04599761962890625[s] doolittle: 0.12700295448303223[s] cholesky: 0.0749974250793457[s] numpy: 0.004003047943115234[s] scipy: 0.003999710083007812 5[s]
matrix size: 95 crout: 0.08100080490112305[s] doolittle: 0.16199588775634766[s] cholesky: 0.09900140762329102[s] numpy: 0.004000663757324219[s] scipy: 0.003998517990112305[s]
matrix size: 50 crout: 0.015001296997070312[s] doolittle: 0.040012359619140625[s] cholesky: 0.024986982345581055[s] numpy: 0.0030012130737304688[s] scipy: 0.0010001659393310547[s]
matrix size: 55 crout: 0.02599930763244629[s] doolittle: 0.04499673843383789[s] cholesky: 0.02900218963623047[s] numpy: 0.0030019283294677734[s] scipy: 0.0030012130737304688[s]
matrix size: 99 crout: 0.07399940490722656[s] doolittle: 0.1970360279083252[s] cholesky: 0.10596567993164 06[s] numpy: 0.005997419357299805[s] scipy: 0.0070016384124755586[s]
matrix size: 48 crout: 0.016999006271362305[s] doolittle: 0.02900242805480957[s] cholesky: 0.020995378494262695[s] numpy: 0.00200247764587402 34[s] scipy: 0.0019996166229248047[s]
matrix size: 39 crout: 0.01100015640258789[s] doolittle: 0.019002437591552734[s] cholesky: 0.013000249862670898[s] numpy: 0.0019974708557128906[s] scipy: 0.0009982585906982422[s]
matrix size: 25 crout: 0.0030007362365722656[s] doolittle: 0.009001970291137695[s] cholesky: 0.006998777389526367[s] numpy: 0.0010027885437011719[s] scipy: 0.0010004043579101562[s]
matrix size: 85 crout: 0.06999921798706055[s] doolittle: 0.1399984359741211[s] cholesky: 0.08699870109558105[s] numpy: 0.004002571105957031[s] scipy: 0.0030002593994140625[s]
matrix size: 75 crout: 0.05099606513977051[s] doolittle: 0.09200358390808105[s] cholesky: 0.06299996376037598[s] numpy: 0.001996278762817383[s] scipy: 0.004003763198852539[s]
matrix size: 38 crout: 0.012999296188354492[s] doolittle: 0.021000385284423828[s] cholesky: 0.01300048828125[s] numpy: 0.00299954414367675 8[s] scipy: 0.0020012855529785156[s]
matrix size: 58 crout: 0.018999099731445312[s] doolittle: 0.04899930953979492[s] cholesky: 0.03299999237060547[s] numpy: 0.001997709274291992[s] scipy: 0.0020003318786621094[s]
matrix size: 96 crout: 0.09799790382385254[s] doolittle: 0.17500090599060059[s] cholesky: 0.11599659919738 77[s] numpy: 0.005003213882446289[s] scipy: 0.0039989948272705078[s]
matrix size: 69 crout: 0.043004512786865234[s] doolittle: 0.08499741554260254[s] cholesky: 0.05099701881408691 4[s] numpy: 0.003002643585205078[s] scipy: 0.001999378204345703[s]
matrix size: 37 crout: 0.011998414993286133[s] doolittle: 0.016002655029296875[s] cholesky: 0.013000249862670898[s] numpy: 0.001998424530029297[s] scipy: 0.0009999275207519531[s]
matrix size: 72 crout: 0.03599977493286133[s] doolittle: 0.09600043296813965[s] cholesky: 0.05699896812438965[s] numpy: 0.003000497817993164[s] scipy: 0.003001689910888672[s]
matrix size: 70 crout: 0.04199695587158203[s] doolittle: 0.08700084686279297[s] cholesky: 0.05299758911132812 5[s] numpy: 0.0030040740966796875[s] scipy: 0.0039958953857421875[s]
matrix size: 89 crout: 0.07999610900878906[s] doolittle: 0.15000247955322266[s] cholesky: 0.07900047302246094[s] numpy: 0.003999710083007812 5[s] scipy: 0.0029990673065185547[s]
matrix size: 46 crout: 0.020000219345092773[s] doolittle: 0.026999235153198242[s] cholesky: 0.019999980926513672[s] numpy: 0.002000093460083008[s] scipy: 0.0019998550415039062[s]
matrix size: 41 crout: 0.013999462127685547[s] doolittle: 0.02500128746032715[s] cholesky: 0.017000436782836914[s] numpy: 0.001999378204345703[s] scipy: 0.002002716064453125[s]
matrix size: 30 crout: 0.007995367050170898[s] doolittle: 0.013004302978515625[s] cholesky: 0.009000778198242188[s] numpy: 0.0009982585906982422[s] scipy: 0.0019996166229248047[s]
matrix size: 79 crout: 0.0579991340637207[s] doolittle: 0.11900019645690918[s] cholesky: 0.06202244758605957[s] numpy: 0.003974437713623047[s] scipy: 0.004004001617431641[s]
matrix size: 48 crout: 0.018996238708496094[s] doolittle: 0.03099966049194336[s] cholesky: 0.023002386093139 65[s] numpy: 0.0020003318786621094[s] scipy: 0.0020003318786621094[s]
matrix size: 50 crout: 0.020002126693725586[s] doolittle: 0.03899574279785156[s] cholesky: 0.023003816046142 58[s] numpy: 0.0029969215393066406[s] scipy: 0.0020012855529785156[s]
matrix size: 78 crout: 0.05899930000305176[s] doolittle: 0.11199998855590820[s] cholesky: 0.07000207901000977[s] numpy: 0.003999710083007812 5[s] scipy: 0.0029990673065185547[s]

matrix size: 44 crout: 0.016000032424926758[s] doolittle: 0.022999048233032227[s] cholesky: 0.018001079559326172[s] numpy: 0.0010004043579101562[s] scipy: 0.002000093460083008[s]
matrix size: 98 crout: 0.09199881553649902[s] doolittle: 0.18500065803527832[s] cholesky: 0.12499880790710449[s] numpy: 0.0050013065338134766[s] scipy: 0.004999637603759766[s]
matrix size: 52 crout: 0.022997379302978516[s] doolittle: 0.03300333023071289[s] cholesky: 0.026999473571777344[s] numpy: 0.0019998550415039062[s] scipy: 0.0029997825622558594[s]
matrix size: 96 crout: 0.07000255584716797[s] doolittle: 0.1719985008239746[s] cholesky: 0.11700153350830078[s] numpy: 0.003999233245849609[s] scipy: 0.0060002803802490234[s]
matrix size: 67 crout: 0.03800082206726074[s] doolittle: 0.0769960880279541[s] cholesky: 0.041001081466674805[s] numpy: 0.003004312515258789[s] scipy: 0.0039973258972167969[s]
matrix size: 74 crout: 0.03697681427001953[s] doolittle: 0.10199785232543945[s] cholesky: 0.059998273849487305[s] numpy: 0.004006147384643555[s] scipy: 0.0039958953857421875[s]
matrix size: 51 crout: 0.022002458572387695[s] doolittle: 0.04299569129943848[s] cholesky: 0.02200150489807129[s] numpy: 0.0020017623901367188[s] scipy: 0.0019977092742919922[s]
matrix size: 22 crout: 0.0020008087158203125[s] doolittle: 0.0070018768310546875[s] cholesky: 0.00400161743164062 5[s] numpy: 0.0009965896606445312[s] scipy: 0.001998424530029297[s]
matrix size: 22 crout: 0.0030014514923095703[s] doolittle: 0.006999969482421875[s] cholesky: 0.004998207092285156[s] numpy: 0.001005411148071289[s] scipy: 0.0009973049163818359[s]
matrix size: 37 crout: 0.0089959585105346 68[s] doolittle: 0.018001079559326172[s] cholesky: 0.01299738883972168[s] numpy: 0.0009999275207519531[s] scipy: 0.0010035037994384766[s]
matrix size: 62 crout: 0.032998085021972656[s] doolittle: 0.06400084495544434[s] cholesky: 0.03900027275085449[s] numpy: 0.002001285552978515 6[s] scipy: 0.003000497817993164[s]
matrix size: 41 crout: 0.013996362686157227[s] doolittle: 0.02499985694885254[s] cholesky: 0.01500248908996582[s] numpy: 0.0009982585906982422[s] scipy: 0.0010006427764892578[s]
matrix size: 97 crout: 0.07700037956237793[s] doolittle: 0.1849980354309082[s] cholesky: 0.12000226974487305[s] numpy: 0.003998756408691406[s] scipy: 0.0040023326873779297[s]
matrix size: 91 crout: 0.08500075340270996[s] doolittle: 0.171998739242553 7[s] cholesky: 0.10112500190734863[s] numpy: 0.003873586654663086[s] scipy: 0.004000425338745117[s]
matrix size: 79 crout: 0.046001434326171875[s] doolittle: 0.11900043487548828[s] cholesky: 0.062000274658203125[s] numpy: 0.0039975643157958984[s] scipy: 0.0029976367950439453[s]
matrix size: 37 crout: 0.010999441146850586[s] doolittle: 0.01900315284729004[s] cholesky: 0.01399683952331543[s] numpy: 0.0019996166229248047[s] scipy: 0.0010006427764892578[s]
matrix size: 61 crout: 0.03200173377990723[s] doolittle: 0.05299854278564453[s] cholesky: 0.03937506675720215[s] numpy: 0.002007246017456054 7[s] scipy: 0.0030012130737304688[s]
matrix size: 65 crout: 0.026998519897460938[s] doolittle: 0.06300044059753418[s] cholesky: 0.03999961853027344[s] numpy: 0.0030012130737304688[s] scipy: 0.0019996166229248047[s]
matrix size: 78 crout: 0.0589909553527832[s] doolittle: 0.09999346733093262[s] cholesky: 0.06100106239318848[s] numpy: 0.004001140594482422[s] scipy: 0.0029993057250976562[s]
matrix size: 84 crout: 0.04800105094909668[s] doolittle: 0.14100003242492676[s] cholesky: 0.07199883460998535[s] numpy: 0.0029993057250976562[s] scipy: 0.0039997100830078125[s]
matrix size: 49 crout: 0.014005184173583984[s] doolittle: 0.03099894523620605 5[s] cholesky: 0.021996498107910156[s] numpy: 0.002001285552978515 6[s] scipy: 0.0019981861114501953[s]
matrix size: 27 crout: 0.005003929138183594[s] doolittle: 0.010998249053955078[s] cholesky: 0.007000207901000976 6[s] numpy: 0.0009970664978027344[s] scipy: 0.0010008811950683594[s]
matrix size: 66 crout: 0.027001619338989258[s] doolittle: 0.06199812889099121[s] cholesky: 0.04200124740600586[s] numpy: 0.0020003318786621094[s] scipy: 0.0019993782043457031[s]
matrix size: 85 crout: 0.05199933052062988[s] doolittle: 0.12200045585632324[s] cholesky: 0.0780022144317627[s] numpy: 0.003996849060058594[s] scipy: 0.005002498626708984[s]
matrix size: 75 crout: 0.04200339317321777[s] doolittle: 0.08899712562561035[s] cholesky: 0.05599761009216308 6[s] numpy: 0.004009021759033203 2[s] scipy: 0.003999471664428711[s]
matrix size: 43 crout: 0.011002779006958008[s] doolittle: 0.02399826049804687 5[s] cholesky: 0.017000198364257812[s] numpy: 0.001998424530029297[s] scipy: 0.0020024776458740234[s]
matrix size: 49 crout: 0.015998363494873047[s] doolittle: 0.03283619880676269 5[s] cholesky: 0.022998809814453125[s] numpy: 0.002001047134399414[s] scipy: 0.0009992122650146484[s]
matrix size: 26 crout: 0.004001855850219726 6[s] doolittle: 0.009999275207519531[s] cholesky: 0.006999969482421875[s] numpy: 0.0010013580322265625[s] scipy: 0.0009975433349609375[s]
matrix size: 76 crout: 0.04100179672241211[s] doolittle: 0.09099960327148438[s] cholesky: 0.05700087547302246[s] numpy: 0.003998994827270508[s] scipy: 0.002998828887939453[s]
matrix size: 25 crout: 0.003004074096679687 5[s] doolittle: 0.007996082305908203[s] cholesky: 0.007001399993896484[s] numpy: 0.0009999275207519531[s] scipy: 0.0010035037994384766[s]
matrix size: 29 crout: 0.005996227264404297[s] doolittle: 0.010999917984008789[s] cholesky: 0.007002592086791992[s] numpy: 0.0009992122650146484[s] scipy: 0.0009994506835937 5[s]

matrix size: 43 crout: 0.013001680374145508[s] doolittle: 0.022998809814453125[s] cholesky: 0.021002769470214844[s] numpy: 0.0019969940185546875[s] scipy: 0.002001047134399414[s]
matrix size: 87 crout: 0.05499720573425293[s] doolittle: 0.1270003318786621[s] cholesky: 0.07800626754760742[s] numpy: 0.0029935836791992188[s] scipy: 0.0039975643157958984[s]
matrix size: 29 crout: 0.005001544952392578[s] doolittle: 0.010001420974731445[s] cholesky: 0.0069997310638427734[s] numpy: 0.0009980201721191406[s] scipy: 0.0010030269622802734[s]
matrix size: 39 crout: 0.009999752044677734[s] doolittle: 0.020999431610107422[s] cholesky: 0.015001058578491211[s] numpy: 0.002996683120727539[s] scipy: 0.0010025501251220703[s]
matrix size: 35 crout: 0.008997917175292969[s] doolittle: 0.015001535415649414[s] cholesky: 0.009001493453979492[s] numpy: 0.0009970664978027344[s] scipy: 0.0009996891021728516[s]
matrix size: 78 crout: 0.04300284385681152[s] doolittle: 0.09599733352661133[s] cholesky: 0.0570011389160156[s] numpy: 0.0029993057250976562[s] scipy: 0.0029985904693603516[s]
matrix size: 44 crout: 0.01200246810913086[s] doolittle: 0.02299952507019043[s] cholesky: 0.015996217727661133[s] numpy: 0.002000570297241211[s] scipy: 0.0010011196136474 61[s]
matrix size: 50 crout: 0.017011165618896484[s] doolittle: 0.03299045562744 1406[s] cholesky: 0.01999807357788086[s] numpy: 0.002001762390136 7188[s] scipy: 0.0029969215393066406[s]
matrix size: 96 crout: 0.07200288772583008[s] doolittle: 0.19199728965759277[s] cholesky: 0.09900212287902832[s] numpy: 0.003998517990112305[s] scipy: 0.0050003528594970 7[s]
matrix size: 51 crout: 0.017000913619995117[s] doolittle: 0.03699851036071777[s] cholesky: 0.02100062370300293[s] numpy: 0.001998901367187 5[s] scipy: 0.0019998550415039062[s]
matrix size: 96 crout: 0.07100129127502441[s] doolittle: 0.16899871826171875[s] cholesky: 0.0989985466003418[s] numpy: 0.004000902175903 32[s] scipy: 0.0040013790130615234[s]
matrix size: 86 crout: 0.05299997329711914[s] doolittle: 0.12800192832946777[s] cholesky: 0.0749976634979248[s] numpy: 0.003997802734375[s] scipy: 0.004003763198852539[s]
matrix size: 49 crout: 0.012998104095458984[s] doolittle: 0.030999183654785156[s] cholesky: 0.01999902752521 97266[s] numpy: 0.002001523971557617[s] scipy: 0.0010001659393310547[s]
matrix size: 26 crout: 0.003999948501586914[s] doolittle: 0.0080001354217529 3[s] cholesky: 0.0069997310638427734[s] numpy: 0.0[s] scipy: 0.002012491226196289[s]
matrix size: 97 crout: 0.07156896591186523[s] doolittle: 0.16964125633239746[s] cholesky: 0.10000157356262207[s] numpy: 0.003997087478637695[s] scipy: 0.005003452301025391[s]
matrix size: 82 crout: 0.04700040817260742[s] doolittle: 0.11199855804443 36[s] cholesky: 0.0670011043548584[s] numpy: 0.002998352050781 25[s] scipy: 0.003000497817993164[s]
matrix size: 21 crout: 0.0009999275207519531[s] doolittle: 0.005001068115234375[s] cholesky: 0.0030024051666259766[s] numpy: 0.0[s] scipy: 0.0009958744049072266[s]