LU11.A02 pgvector

Wie es der Zufall so will, gibt es eine Erweiterung für PostgreSQL names pgvector, die eine Vektordatenbank ermöglicht.

Installieren Sie die Erweiterung für PostgreSQL 17 folgendermassen:

- https://github.com/andreiramani/pgvector_pgsql_windows/releases/tag/0.8.1_17.6 runterladen und readme.txt lesen
- Im korrekten Verzeichnis entpacken
- psql -U postgres
- CREATE EXTENSION vector;
- SELECT extname, extrelocatable, extversion FROM pg_extension where extname='vector';

```
    CREATE TABLE documents (
        id SERIAL PRIMARY KEY,
        content TEXT,
        embedding vector(384) -- number of dimensions
);
```

```
    INSERT INTO documents (content, embedding) VALUES

   "Der Hund läuft durch den Park.",
 "[-0.015902026,0.05760266,0.107075155,-0.0519569,0.04090412,0.063455336
 ,0.069191605,0.051044736,0.006737726,-0.01214657,-0.013535015,-0.019056
 423, -0.032045193, -0.13006032, 0.016757274, -0.004476108, -0.0952798, 0.1014
 4993,0.09780408,0.01470981,0.019391175,-0.055309564,-0.023545157,-0.019
 936983,-0.057729065,0.0421057,-0.06326068,0.018626489,0.009571697,-0.03
 0426377, 0.054151293, -0.03349272, -0.032791294, -0.02367296, -0.014362127, 0
 .032164637,0.008929128,-0.10308307,-0.014764295,0.09056183,-0.123820856
 ,0.022556324,-0.0053615896,-0.0305183,0.015828503,0.0025636808,-0.02910
 4356,0.06695222,-0.03501711,-0.04742426,0.07971505,-0.02334719,0.142055
 14,-0.020685786,0.023359444,0.006347681,-0.06238359,-0.03436055,0.03463
 755, -0.036575176, -0.0034707799, -0.038640074, -0.06842277, -0.025703594, -0
 .026988173, -0.10568396, 0.04725269, -0.020664569, 0.009366303, 0.05374474, 0
 .030568963, -0.027128324, -0.04893158, -0.024928976, 0.036915928, -0.0141006
 69,-0.041941334,0.006077247,-0.032531682,-0.1456292,0.02550352,0.008206
 464,0.0026944191,0.024708213,0.087934785,-0.04525851,0.019175258,-0.005
 2121957,0.013333252,-0.022167822,-0.049465273,-0.02222302,-0.114417635,
 0.022167044, -0.016609527, -0.00060269673, -0.003967489, 0.043371897, -0.007
 85732,0.04760869,0.017513938,0.08043419,-0.039619524,0.038543053,-0.031
 57974, -0.083687104, -0.02696411, 0.009527292, 0.012456736, 0.013845288, -0.0
 047107064, -0.025274066, 0.03858401, 0.03237137, 0.0015916632, -0.026889147,
 -0.02380971, -0.15585561, -0.0432662, -0.029026372, 0.03444843, 0.026414542,
```

Last

-0.052789204,0.053718384,-0.0132141085,-0.029013652,0.04918017,-2.08552 81e-33,-0.07203463,-0.0730158,-0.012186054,-0.0012483152,0.032684013,-0 .0010199632,-0.07587936,0.012219001,-0.026544096,0.08624021,0.029073853 ,-0.002380222,-0.05196019,-0.107193865,-0.01028014,-0.010946341,0.05186 3417,0.022463804,0.057778347,0.0043305974,-0.063037075,0.098784156,-0.0 092604365, 0.052410536, 0.06770865, -0.107281655, 0.025589295, 0.022270167, 0 .0077619078,0.039876446,0.008388649,-0.046165153,0.017199958,-0.0242931 95,-0.009530205,-0.054719202,0.010007223,0.07832215,0.011260705,-0.0336 18875,0.05528181,-0.059687927,-0.023378344,-0.060528725,-0.005454299,0. 089381784, 0.09354681, -0.00067551184, -0.013362416, 0.005547034, -0.0323453 8,0.023886643,-0.15267086,0.0017391786,-0.040709917,0.014857881,-0.0584 6937, -0.027763588, -0.0153588895, 0.07794546, 0.0022341646, 0.10342343, -0.0 18686658, 0.008230988, -0.005319809, -0.0739071, 0.10231392, -0.0042376053, 0 .02962603,0.084664375,-0.043651186,0.0026375644,-0.008864546,0.04802604 ,-0.011376293,-0.0004954449,-0.066222645,0.12868592,-0.06032201,0.03138 004, -0.099170856, -0.059295885, -0.026919272, 0.02114824, 0.01556886, -0.019 192664, -0.018935775, -0.017802687, -0.025661029, 0.038008276, -0.049918566, -0.024648312,0.02630718,-0.053206664,-0.04511368,-1.4669121e-33,0.05332 5336, -0.039655622, -0.0071383812, -0.023829913, -0.06375235, 0.20953326, -0. 057970237, 0.04711587, -0.12515473, -0.006652934, -0.042604513, 0.024943482, 0.07486059,-0.015442274,-0.029048141,0.024548335,0.051385794,-0.0076416 917, -0.09002143, 0.054300122, 0.0036038717, -0.006855256, -0.0015614633, 0.0 77529244, -0.04145148, 0.027742326, 0.08735834, 0.037774418, -0.063271716, -0 .02480109,-0.02065141,-0.030381996,-0.00085844356,0.03277278,-0.0071035 866,0.014050567,0.07217626,0.031265415,-0.046793282,0.055842742,-0.0247 60334,0.003098233,-0.02073643,0.019716848,0.072291814,-0.011421857,-0.1 0554969, 0.021562696, -0.08321524, -0.0010015981, 0.067455746, 0.005732426, 0 .023547255, -0.08254648, 0.07384246, 0.015776817, -0.074067555, -0.024561346 ,-0.06829107,0.029875016,0.090821624,0.08584913,-0.07299273,0.024516884 ,0.021519367,-0.08002845,-0.10722387,-0.029813077,0.065924495,-0.018348 208, -0.0057141418, 0.06331403, 0.05722649, 0.015131079, -0.06581655, 0.03040 6347,0.08508501,0.020362547,0.009204154,-0.0017917801,-0.032812484,0.00 08799117, 0.07919005, 0.0133233685, -0.05353093, 0.014769983, -0.008522378, -0.04807781, 0.012719072, 0.012054382, 0.032059215, 0.0143988, -0.0421371, 0.034120087, -0.03874802, -1.8772196e-08, 0.038291484, -0.0044904836, 0.0037404 178, -0.0094649205, 0.016897416, -0.11200427, 0.012573268, 0.0016468763, -0.0 9550682,0.0444538,-0.030907767,0.07379738,-0.045597654,0.05469816,0.018 687898, 0.028483624, -0.00027369513, 0.0279244, -0.027465722, -0.00093914045 ,0.025966711,-0.052260052,-0.014468156,0.033594117,0.017930113,-0.03485 289,0.032728143,-0.100177,0.047034483,-0.06515352,0.06083111,0.0939418, -0.05146198,0.01588281,0.030863427,-0.039015584,-0.016371123,-0.0014002 617, -0.015743872, 0.09720156, 0.0038669026, 0.10042266, 0.074528895, -0.0244 46735, -0.011541521, -0.013685915, 0.0068924576, 0.04893709, 0.046512086, 0.0 02998947, -0.05208014, -0.013672077, 0.033397645, 0.060362853, 0.011584898, 0 .033431537,-0.0100522945,-0.060265113,-0.05874346,-0.031686537,0.045740 683,0.024308052,0.0751419,0.060364284]"), "Eine Katze schläft auf dem warmen Sofa.", "[-0.007109721,-0.0012636421,0.026766846,0.012819621,0.043071654,0.0792

https://wiki.bzz.ch/ Printed on 2025/11/19 12:48

1686, 0.018642558, -0.0038872494, 0.022054011, 0.013431814, -0.05659505, -0.0 43275595,0.03836268,-0.06556313,-0.008522144,-0.12838042,-0.051104832,-0.0062760334, 0.05066713, 0.019885672, -0.048796073, 0.0052368157, -0.000228 28161,0.0117930705,0.010322504,-0.064336255,-0.009374374,-0.015339527,-0.028898295,0.009956123,0.087275654,-0.005699602,-0.041316926,0.0008534 925, 0.026512435, -0.0129187815, -0.034365073, -0.10518909, -0.10063698, 0.04 3729555, -0.07572918, -0.05152381, -0.08331055, -0.09508291, 0.008619949, 0.0 6357801,-0.055732884,0.0039848043,-0.035948444,0.011069881,-0.018140689 ,-0.054991223,0.06933574,0.021451777,0.060022242,-0.009584419,0.0341516 92,0.055562854,0.026624039,0.007609263,0.00619069,-0.0076646367,-0.0728 472,0.0034120711,-0.04905754,-0.026284344,-0.0019838156,-0.045056302,-0 .048960544,0.033400036,0.02618989,-0.060319964,0.030321185,-0.022360127 ,0.010738806,-0.07416676,-0.019763187,-0.032202207,-0.044774584,-0.0722 965, -0.0027052574, -0.0021893687, 0.00726735, 0.010743133, -0.054798897, 0.0 32343052,0.063814476,-0.023674248,0.011412284,-0.01706459,-0.004104812, -0.028862283, -0.065793574, 0.007216751, 0.013070131, -0.018487176, 0.043271 616,0.04852647,0.009659438,0.072135,-0.018994316,-0.0007128349,0.052351 06,0.06728554,-0.073411785,-0.067671016,0.02899286,-0.04362407,-0.03046 7158,0.0156073505,0.026467312,-0.042623177,0.0443307,-0.050782077,0.021 636521, -0.031146064, 0.05716749, -0.11358903, 0.031021126, -0.034166377, 0.0 7877888, 0.050794873, 0.037616502, 0.09779996, -0.00043261636, -0.026016396, 0.030363506,-8.245871e-34,-0.08481493,-0.0012253984,-0.0066577345,0.013 639118, 0.040752653, -0.03847611, -0.0871474, 0.060165785, -0.008847271, 0.05 5194285, -0.016984848, 0.052887857, 0.003370655, -0.040454533, 0.021277681, -0.03944487,-0.028587474,0.06048974,0.07144779,-0.010222038,-0.085864015 ,-0.020736136,0.077844,0.08920567,-0.003912849,-0.0536194,0.030182922,-0.031182611, -0.109996445, 0.013929901, -0.0036641064, 0.0038031344, -0.026429074, -0.015103883, -0.0817704, -0.014362445, -0.003361277, 0.082898624, -0. 02232608, 0.03328414, 0.0709098, -0.015548845, 0.030742528, -0.022985263, 0.0 25916647, 0.08531005, 0.0049170884, 0.05742582, -0.0062552947, -0.033707064, -0.012624774, 0.0168311, -0.024949014, 0.012279832, -0.044980783, 0.10605057,-0.014571283,-0.0047862283,0.016276866,-0.0063253203,0.004077867,-0.00 13730148, -0.025798576, -0.05769213, -0.04357434, -0.020713568, 0.0190682, -0 .03988668,0.032009773,0.028675435,-0.083054274,0.06633611,0.15217908,0. 0047293394, -0.0038355428, 0.03598864, -0.033073008, 0.11405856, 0.00091778516, -0.038221795, -0.021026682, -0.06143421, 0.009151511, -0.03507998, 0.0422 9497,-0.09557768,-0.07878469,0.03006426,-0.080542676,0.03866609,-0.0208 7136, -0.096545964, 0.003208555, -0.03374377, 0.0036361937, -2.510173e-33, 0. 06856655, -0.048050437, -0.039925195, 0.06911988, 0.004643353, 0.10951486, -0 .06589104, -0.0004224736, -0.0959961, 0.025954407, 0.03320171, -0.06373742, 0 .06742268,-0.07901064,0.025491022,0.05758493,-0.0004122817,-0.05263934, -0.0031380835,0.018617855,-0.02555903,-0.06050702,-0.024223005,0.066920 63,-0.031032525,0.025663901,0.04553615,0.09589248,-0.07604901,0.0127979 84,-0.029271705,-0.06818177,-0.01479886,0.032238517,0.02525658,0.084004 98,0.025659839,0.059900105,-0.001948536,0.038660135,0.024949677,0.04092 821, -0.010638702, 0.034401804, 0.113362946, -0.012123933, -0.16080178, -0.03 876833,0.006421854,-0.03145186,0.02971503,-0.01971939,0.018471908,-0.06 0188565, -0.01910312, -0.007089387, -0.04096955, -0.014689726, -0.040304527, 0.06490701,0.08734343,0.12555356,0.04836974,0.053228207,0.015001946,-0. 088268116, -0.14484751, -0.09303707, 0.073668584, 0.035370257, 0.06846934, -0 .0016099394,0.0052424,0.0414774,-0.0932678,-0.029667115,0.115591206,0.0

```
66997655, -0.025262048, 0.080832675, -0.027363164, 0.039069086, 0.05649752, 0
.04224766,0.05409327,-0.0442604,0.07631905,-0.023685139,-0.011432643,-0
.057219494,-0.00047557708,0.07795495,0.032833274,-0.0021146084,0.039287
873, -1.9626652e-08, -0.009475374, -0.053274162, -0.055274833, 0.06361991, 0.
07910111, -0.17217484, -0.090310946, -0.06705612, -0.060435694, -0.041230883
,-0.013782844,0.0096473945,-0.011305571,0.099291466,0.04176543,0.091747
224, -0.087833494, 0.032089613, -0.01484136, -0.04616804, 0.039674077, -0.049
184702, -0.0017470097, -0.06762189, 0.0204311, -0.032336604, 0.00151831, 0.01
2680851, -0.011514795, -0.027736217, -0.08925785, 0.046010647, -0.072444126,
0.01594395, 0.043229405, -0.021536356, -0.023562418, 0.0013237074, -0.027282
983,0.021109229,0.024281958,0.04329861,-0.0051210304,-0.12128472,-0.002
2485289, -0.03938641, -0.0028802075, 0.032415453, 0.07509276, 0.12356085, 0.0
2271908, 0.052506197, 0.03601245, 0.067394726, -0.015178452, 0.01071139, -0.0
2103686, -0.0059086145, 0.050515737, -0.023933707, 0.047121376, 0.056607913,
0.02156276,0.03161785]"
),
  "Programmierung in Java macht Spass.",
"[-0.043199744,0.09148949,-0.029067023,-0.06481709,-0.0311841,0.0073619
215,0.051010933,0.12620015,-0.09678382,-0.060969703,-0.042856723,-0.046
706,0.05544092,-0.060114734,-0.00836417,-0.074299425,-0.03463477,0.0364
53933,0.013771827,-0.06727395,0.01024464,-0.06941216,-0.022414654,-0.03
5051163,0.009672586,0.061972737,0.039283082,-0.018595783,0.0015757851,-
0.0065638525, 0.01643965, -0.011278945, 0.06483684, 0.049729783, 0.012437139
,0.06817763,-0.03446645,-0.020716297,-0.028256316,0.03619061,-0.1585673
5,0.034263678,-0.050924677,-0.019099634,0.030307252,-0.03753782,-0.0604
6897, -0.017386938, -0.033569343, -0.013553138, -0.123852044, -0.070727564, 0
.015693504, -0.10495245, 0.019725902, -0.028855532, 0.08421999, 0.054797176,
-0.032417994, -0.06807971, -0.0042420872, -0.031062094, -0.11073772, 0.02437
5893,0.0011726405,-0.0791234,0.06756717,0.013735893,0.061020296,-0.0517
5079, -0.036201973, -0.0072627794, -0.041609887, 0.06854787, -0.11765699, 0.0
11322833, -0.0022854141, 0.032128565, 0.00072450977, -0.060432363, 0.0186279
77,0.013942829,-0.05643342,0.059503593,0.003444116,0.0333178,0.00380887
44,0.003608918,0.104643136,0.107927516,-0.003259363,-0.038505763,-0.055
448446,0.026781958,-0.07017709,0.020072648,0.015946819,-0.00507406,-0.0
0025913666, 0.07487487, -0.027873257, -0.018572668, 0.08420072, 0.0002617924
2,0.018718606,-0.06249499,-0.008756472,-0.011860059,0.062050622,-0.0579
5504, -0.0037953006, -0.062763505, -0.0036034144, -0.049373556, 0.053317714,
0.052781623, 0.056375057, 0.012969441, -0.026805436, 0.036944233, 0.0750596,
0.025857126, 0.00067704014, 0.009160451, -0.02921264, 0.011729357, -0.027095
947, -1.45807135e-33, -0.019052722, -0.15279838, -0.013425207, 0.04359884, -0
.056741316, -0.034728773, -0.0060269493, 0.076329775, -0.019702783, -0.03206
247,0.023045592,-0.029590433,0.012854884,0.035741143,0.095244706,-0.081
12456,0.028272616,0.016245343,-0.077332415,-0.069537684,0.05222033,-0.0
1879696, 0.018304689, 0.025418874, 0.030933425, 0.0011363681, 0.07403793, -0.
038825825, 0.02319155, 0.058293328, 0.036435634, -0.04898838, -0.09559844, 0.
086611435,0.016126338,-0.023224672,0.024320835,0.008943432,0.0899699,-0
.07359543,-0.01976067,-0.061974544,0.039143473,-0.053590316,0.06344621,
```

https://wiki.bzz.ch/ Printed on 2025/11/19 12:48

-0.017541748, -0.035693333, 0.041907027, -0.010939826, 0.038936418, 0.016326, 0.049230784, 0.06424195, 0.032906126, -0.012862958, 0.044547018, 0.00377, -0.012862958, 0.044547018, 0.00374, -0.012862958, 0.044547018, 0.00374, -0.012862958, 0.044547018, 0.00374, -0.012862958, 0.044547018, 0.00374, -0.012862958, 0.044547018, 0.00374, -0.012862958, 0.044547018, -0.00374, -

```
03586, 0.019166064, -0.03764945, 0.05911243, -0.051984876, 0.054847647, 0.018
674286, 0.018385684, 0.005276748, -0.033845566, -0.031927783, -0.08873384, 0.
02162486, 0.08852322, -0.06306789, -0.025436023, 0.025399275, 0.05153109, -0.
0417584, -0.030801425, 0.035665832, 0.053132374, -0.12846376, -0.072820894, -
0.07655702, -0.055612717, 0.023576686, -0.08033544, 0.027590046, 0.037838873
,0.024486989,0.02280135,0.043658815,-0.011392373,-0.005150353,0.0474491
86,-0.068905294,0.071303934,0.011534903,-1.23589575e-33,-0.028091373,0.
0152630685,-0.097441435,0.011939193,-0.033349372,0.06410249,-0.04080537
3,-0.0017615345,-0.089246176,0.04565074,-0.09040253,-0.014324715,0.0056
94159,0.04352267,0.0065335827,-0.012221887,0.04814591,0.021103995,-0.06
231404,0.029945044,-0.016408589,0.03672898,-0.046842467,-0.022914894,0.
038386464, -0.063421994, 0.000240184, 0.062092103, -0.033147678, 0.052950803
,0.0615976,0.031028317,-0.08760409,-0.028951991,-0.019420587,-0.0582917
78,0.101425976,0.08239884,-0.007932023,0.0794472,0.05253728,-0.04357920
2,0.001978901,0.11115341,0.03686089,0.03464957,-0.08480418,-0.02993048,
-0.040244307, -0.046863183, -0.011053749, -0.049791258, 0.11263686, -0.04662
6706, 0.008683353, -0.020923225, 0.0032009738, -0.0153157925, -0.039052136, 0
.044138275,0.009504397,-0.047427427,0.08941596,-0.04366561,0.041203193,
-2.3478471e-05,-0.06431146,0.028332205,-0.036610276,-0.027355889,0.0561
07797,0.059275053,-0.03022778,0.059632666,-0.06698415,0.014997553,-0.00
06735713,0.024528008,-0.06615717,0.009001569,0.089498065,0.05985147,0.0
4294402, -0.049209103, -0.033270817, -0.045041814, 0.042637326, 0.044402238,
-0.083363034, -0.035062186, -0.017142564, 0.13089211, 0.08292652, 0.03917421
,-0.01049604,-1.6980252e-08,0.022168994,-0.06188877,0.02975455,0.042392
31,0.09771507,0.027252447,-0.08558896,-0.0019520227,0.000600219,-0.0108
75188,0.005267611,0.050145335,-0.037286483,0.10541966,0.054084074,-0.03
1100156, 0.027600797, 0.0033523876, -0.041885033, 0.06487586, 0.0867919, -0.0
31240746, -0.055361986, 0.09804535, -0.0013821427, -0.038988512, 0.05761503,
0.041229732,0.04785897,-0.0039908066,-0.012717668,0.097493365,0.0434754
45, -0.013760679, -0.07118961, 0.0979552, 0.006772124, 0.026487295, -0.009786
03,-0.013683758,-0.017277911,0.018662306,0.00031973785,-0.040192973,0.0
06619356, -0.058152854, -0.04380784, -0.051850107, 0.013902587, -0.01040878,
-0.09169441,0.06701084,-0.0100300815,-0.04171697,0.023087453,0.06323779
,-0.015546562,-0.097232506,-0.032980997,0.07983877,-0.06707497,0.022109
56,0.038668133,0.012910295]"
),
  "PostgreSQL ist eine leistungsfähige Datenbank.",
"[-0.03428802,0.061731853,-0.039749626,0.041446563,-0.1312589,0.0862106
16,0.0031893714,0.03005185,0.029913802,-0.051173497,-0.046993572,0.0449
4142, -0.06535754, -0.117120914, -0.058307584, -0.032020025, -0.030931469, 0.
04724903, 0.07477239, -0.047282103, -0.08303421, -0.09534754, -0.07372289, 0.
062286273, -0.015537756, -0.030445471, 0.035115097, -0.034719612, -0.0056610
38, -0.050863385, -0.032596465, 0.020533413, 0.002676684, 0.001748204, 0.0184
42871,0.040867526,0.07504989,-0.06816929,-0.0066910232,-0.049538437,-0.
06285249, -0.029577248, -0.034958046, 0.009851965, 0.0038422446, -0.00860672
6,0.015155195,0.05488835,-0.108015865,0.058657747,-0.04386702,0.0107930
24,0.049254157,-0.042334426,0.06288332,-0.0077070002,-0.057407934,-0.00
5223018,0.022485344,0.02093222,0.010004206,0.029146312,-0.070936464,0.0
047031553, -0.04695517, -0.05301449, 0.087669134, -0.00060110935, 0.05787815
5, -0.032613646, 0.007620016, 0.011033, -0.050326247, 0.0066437777, -0.122465
```

06, 0.07862695, -0.013070144, -0.00866571, 0.009051513, -0.07175043, 0.010015825,0.0015337581,-0.054672528,0.037791643,-0.04065118,-0.0646542,-0.009 309552,0.06273673,-0.010062411,-0.03774544,0.00558341,0.07640697,-0.017 151501,0.014936179,-0.023668144,-0.0804005,0.010415255,0.026836356,0.09 627112,0.07351683,0.025850173,0.117940865,-0.012389545,0.086563036,-0.0 9040029, -0.05076193, -0.04871015, -0.10462532, 0.0077834674, 0.010168512, -0 .008759142, -0.008838405, -0.013771178, -0.09049134, 0.054906778, 0.02176473 7,-0.011731598,-0.05618442,0.061379083,-0.06322648,0.055578656,0.013695 687,0.0010568834,-0.030766025,-0.016945394,0.004258694,0.11144851,2.849 4582e-33,-0.012022438,-0.048268538,0.13670515,-0.065353625,-0.016042681 ,-0.060129937,0.004679558,-0.0058944165,0.016894303,0.07290658,-0.03152 7348, -0.038187254, -0.025704073, -0.11257756, 0.05100518, 0.06928411, -0.018 541085, 0.034066465, 0.10889737, 0.0051157027, 0.033703826, -0.0548851, -0.00 35814866, 0.10546554, 0.070278116, -0.03497917, 0.01181969, 0.0016188329, 0.0 14075273,0.02239478,0.059720542,-0.033488225,-0.062172517,0.032336492,0 .063709624,-0.009490381,-0.047873728,0.040370923,0.023489503,0.02598207 6,0.05810698,-0.04757024,-0.023381513,-0.074121356,0.057969265,0.068297 77,0.018982003,-0.0070904256,0.0843573,-0.011783869,-0.08683107,-0.0189 85933, -0.052137975, 0.024296507, 0.029771721, 0.03940425, -0.021714715, -0.0 3022293,0.036707096,0.047852967,0.019352933,-0.04217234,-0.05304531,-0. 028067075, -0.043193668, -0.004359564, -0.0064156507, 0.022962488, 0.0361515 32,0.05377573,-0.03140745,0.011540018,0.050668817,0.032981865,-0.010937 315,0.0011606034,-0.029649463,0.08281639,-0.010460455,0.039906386,-0.03 254947, -0.027445909, -0.0085841315, -0.010084102, -0.020974321, 0.061872236 ,0.02062507,0.06392658,-0.019587964,0.016390987,-0.063380435,0.06819725 ,0.049368523,0.059539855,0.054273427,-5.0643673e-33,-0.031626932,-0.036 98955, -0.06069203, 0.06353302, 0.0006833746, 0.004930569, -0.027187463, 0.08 729418, -0.0032869575, 0.050338894, -0.020680519, -0.01700213, 0.07001575, 0. 008509124, -0.0056346296, 0.073119335, -0.0070524383, -0.020478448, -0.12685 147,0.040623225,-0.05808782,0.053756043,-0.06523364,-0.0016257523,0.117 194444, -0.022396604, 0.04088221, 0.03741362, -0.05735646, 0.05935054, 0.0375 6513, -0.07742281, 0.03090027, 0.030659223, -0.06035234, -0.053382978, 0.0796 28184, -0.04046231, 0.050222136, 0.08697642, -0.09134127, 0.0742078, -0.02496 2446, -0.023687927, 0.06773873, 0.09303903, -0.06477795, -0.023990726, -0.011 44055, -0.058015667, -0.03667969, 0.00621529, -0.039133023, -0.059553534, 0.0 8551597,0.009556253,-0.043343525,0.050852284,0.0023161988,-0.014259567, -0.047737535, 0.028287172, 0.09394037, -0.008229231, 0.07829643, -0.092273176,0.07673139,-0.0088717025,0.062902406,-0.065857604,0.095242366,0.02547 0948, 0.0027693033, 0.05459697, -0.10716746, 0.01665135, -0.027137507, 0.1018 114, -0.059068378, -0.014730921, -0.04845545, 0.06107386, 0.02658908, 0.07890 163, -0.009588316, -0.026932765, 0.042522248, -0.035873383, -0.065344095, -0. 05751513, -0.020279316, 0.016628083, -0.11824538, 0.046551548, -0.014547778, -2.4285129e-08, -0.0049970075, -0.051582336, -0.13956665, 0.017210605, 0.128 762, -0.016861705, -0.0011404243, 0.05690624, 0.0058147646, -0.011369129, 0.0 41612845, -0.012094769, -0.037582275, 0.014736627, -0.034958713, -0.02583160 8,-0.040282633,-0.027316066,-0.012532097,-0.07391431,0.036836438,-0.026 120262,0.006283454,-0.0955194,-0.043505274,0.0046742884,-0.021511903,0. 05897701,0.06443242,-0.0181837,0.004701698,0.01940474,0.023067491,-0.08 3587915,0.023740744,0.006915952,0.028987203,0.043872677,-0.07811637,0.0 25855409,0.054479633,0.026869394,0.014350279,0.0036525219,-0.059887394,

https://wiki.bzz.ch/ Printed on 2025/11/19 12:48

-0.07411253, -0.021479007, -0.016772134, -0.027661525, 0.09163463, -0.02525247, 0.01594387, 0.027531056, 0.03219072, 0.08930943, 0.030651907, -0.025864288, -0.029737651, -0.08107056, -0.05399496, -0.039352108, -0.007053956, 0.021873824, 0.027538044]");

From:

https://wiki.bzz.ch/ - BZZ - Modulwiki

Permanent link:

https://wiki.bzz.ch/de/modul/ffit/3-jahr/java/learningunits/lu11/aufgaben/b01?rev=1763434412



