A3 of mom 13
[0.712(12), 0.119(48), 0.45(19)]
[0.153(38), 0.562(40), 0.62(30)]
[0.079(39), 0.140(61), 0.47(12)]
A3 of mom 16
[0.6636(96), 0.073(40), 1.6(1.5)]
[0.199(34), 0.536(42), 1.8(1.8)]
[0.063(84), 0.11(15), 0.96(97)]
A3 of mom 17
[0.6520(97), 0.041(38), 1.1(1.0)]
[0.212(32), 0.536(41), 1.1(1.1)]
[0.084(90), 0.16(17), 0.26(33)]
A3 of mom 18
[0.622(27), 0.04(11), 0.230(44)]
[0.26(13), 0.499(81), 0.38(12)]
[0.174(60), 0.184(64), 0.40(12)]
A3 of mom 20
[0.600(21), 0.117(93), 0.255(63)]
[0.164(80), 0.484(55), 0.42(14)]
[0.129(47), 0.221(64), 0.47(11)]

(base) [phyww@node006 ga]$ clear

(base) [phyww@node006 ga]$ python main.py
Q = 0.3277097701793075
A3 of mom 0
[1.305(39)]
[-0.244(39), 0.91(12)]
[0.278(65), 0.253(99), 0.38(27)]

Q = 0.9575046005490025
A3 of mom 0
[1.303(26)]
[-0.242(32), 0.884(95)]
[0.285(50), 0.261(86), 0.40(26)]
A3 of mom 1
[1.235(21), -0.174(40), 0.302(53)]
[-0.200(26), 0.876(73), 0.27(11)]
[0.245(44), 0.222(50), 0.47(20)]

Q = 0.9852202172544835
A3 of mom 0
[1.299(21)]
[-0.235(29), 0.856(85)]
[0.311(55), 0.276(91), 0.43(29)]
A3 of mom 1
[1.235(18), -0.181(38), 0.318(56)]
[-0.197(25), 0.850(69), 0.27(10)]
[0.287(52), 0.231(61), 0.58(21)]
A3 of mom 2
[1.160(14), -0.115(39), 0.353(64)]
[-0.146(25), 0.862(55), 0.23(12)]
[0.238(49), 0.187(47), 0.51(21)]

```
Q = 0.9994599775755295
A3 of mom 0
[1.289(17)]
[-0.230(26), 0.862(79)]
[0.341(59), 0.284(94), 0.31(34)]
A3 of mom 1
[1.228(15), -0.163(33), 0.334(59)]
[-0.196(24), 0.836(64), 0.31(11)]
[0.304(52), 0.231(61), 0.53(23)]
A3 of mom 2
[1.155(12), -0.100(35), 0.380(69)]
[-0.144(23), 0.845(51), 0.26(12)]
[0.249(49), 0.187(48), 0.49(23)]
A3 of mom 4
[1.040(11), -0.020(41), 0.48(13)]
[-0.075(28), 0.826(45), 0.37(20)]
[0.166(48), 0.133(41), 0.44(22)]


Q = 0.9989244259245456
A3 of mom 0
[1.304(17)]
[-0.241(25), 0.883(72)]
[0.327(44), 0.247(77), 0.46(26)]
A3 of mom 1
[1.240(15), -0.177(33), 0.315(46)]
[-0.206(24), 0.862(59), 0.277(86)]
[0.302(42), 0.228(56), 0.53(20)]
A3 of mom 2
[1.163(12), -0.124(35), 0.359(55)]
[-0.146(23), 0.873(49), 0.211(93)]
[0.263(44), 0.205(49), 0.46(21)]
A3 of mom 4
[1.044(11), -0.053(40), 0.47(12)]
[-0.058(25), 0.829(44), 0.30(16)]
[0.177(49), 0.170(47), 0.44(20)]
A3 of mom 5
[0.9933(99), -0.019(40), 0.46(11)]
[-0.015(27), 0.780(41), 0.35(18)]
[0.162(47), 0.184(53), 0.40(21)]


Q = 0.9997204243519603
A3 of mom 0
[1.294(16)]
[-0.239(25), 0.848(76)]
[0.333(48), 0.276(84), 0.43(28)]
A3 of mom 1
[1.234(14), -0.175(33), 0.315(48)]
[-0.211(24), 0.837(62), 0.319(95)]
[0.309(43), 0.238(60), 0.50(21)]
A3 of mom 2
[1.159(12), -0.110(34), 0.356(56)]
[-0.157(23), 0.856(50), 0.25(10)]
[0.259(42), 0.188(45), 0.48(20)]
A3 of mom 4
[1.046(11), -0.054(41), 0.435(96)]
[-0.072(26), 0.828(46), 0.30(15)]
```

```
[0.196(48), 0.170(45), 0.44(20)]
A3 of mom 5
[0.996(10), -0.010(40), 0.423(90)]
[-0.040(26), 0.791(42), 0.35(16)]
[0.174(42), 0.168(43), 0.41(19)]
A3 of mom 8
[0.877(15), 0.096(74), 0.321(66)]
[-0.006(47), 0.708(48), 0.43(15)]
[0.158(41), 0.218(58), 0.30(20)]


Q = 0.999950385049545
A3 of mom 0
[1.291(15)]
[-0.232(24), 0.842(72)]
[0.344(51), 0.277(85), 0.42(29)]
A3 of mom 1
[1.233(13), -0.170(32), 0.329(51)]
[-0.210(23), 0.838(59), 0.330(99)]
[0.311(45), 0.233(58), 0.47(22)]
A3 of mom 2
[1.158(11), -0.102(32), 0.370(60)]
[-0.155(22), 0.847(47), 0.27(11)]
[0.255(42), 0.182(43), 0.49(21)]
A3 of mom 4
[1.048(11), -0.059(40), 0.453(98)]
[-0.077(24), 0.841(45), 0.30(15)]
[0.205(50), 0.167(45), 0.38(22)]
A3 of mom 5
[0.9977(96), -0.016(38), 0.447(97)]
[-0.036(24), 0.786(41), 0.38(17)]
[0.175(44), 0.172(44), 0.38(21)]
A3 of mom 8
[0.877(14), 0.087(66), 0.344(75)]
[0.004(43), 0.699(46), 0.47(17)]
[0.153(42), 0.220(60), 0.26(22)]
A3 of mom 9
[0.850(13), -0.010(62), 0.382(97)]
[0.077(37), 0.704(51), 0.24(15)]
[0.26(11), 0.33(15), 0.32(28)]


Q = 0.9999810518310274
A3 of mom 0
[1.287(14)]
[-0.223(22), 0.855(67)]
[0.359(56), 0.278(88), 0.35(33)]
A3 of mom 1
[1.232(13), -0.166(30), 0.344(56)]
[-0.207(22), 0.851(55), 0.33(10)]
[0.333(51), 0.234(62), 0.45(24)]
A3 of mom 2
[1.156(11), -0.090(30), 0.388(66)]
[-0.153(20), 0.850(44), 0.29(12)]
[0.260(45), 0.176(43), 0.49(22)]
A3 of mom 4
[1.046(10), -0.044(37), 0.47(11)]
[-0.081(23), 0.849(41), 0.34(17)]
```

```
[0.210(53), 0.164(46), 0.30(25)]
A3 of mom 5
[0.9983(95), -0.003(37), 0.462(97)]
[-0.051(23), 0.808(38), 0.37(17)]
[0.191(47), 0.166(43), 0.34(23)]
A3 of mom 8
[0.877(14), 0.110(67), 0.375(81)]
[-0.020(39), 0.725(42), 0.46(17)]
[0.162(43), 0.212(58), 0.24(23)]
A3 of mom 9
[0.850(12), 0.014(57), 0.42(11)]
[0.051(35), 0.734(45), 0.25(15)]
[0.27(11), 0.31(15), 0.27(32)]
A3 of mom 10
[0.810(11), 0.055(47), 0.43(13)]
[0.100(33), 0.634(39), 0.46(22)]
[0.171(67), 0.261(97), 0.35(25)]


Q = 0.9999617073805259
A3 of mom 0
[1.279(13)]
[-0.211(21), 0.816(67)]
[0.406(79), 0.33(11), 0.28(43)]
A3 of mom 1
[1.230(12), -0.162(30), 0.391(77)]
[-0.207(21), 0.826(55), 0.41(13)]
[0.370(64), 0.259(73), 0.39(30)]
A3 of mom 2
[1.153(10), -0.079(29), 0.432(86)]
[-0.157(20), 0.835(43), 0.39(15)]
[0.281(52), 0.175(46), 0.40(28)]
A3 of mom 4
[1.0444(98), -0.032(37), 0.48(11)]
[-0.086(22), 0.830(40), 0.47(20)]
[0.241(59), 0.178(53), 0.13(34)]
A3 of mom 5
[1.0011(94), 0.001(37), 0.464(99)]
[-0.062(23), 0.795(37), 0.48(19)]
[0.225(52), 0.177(48), 0.22(29)]
A3 of mom 8
[0.875(15), 0.144(69), 0.372(81)]
[-0.036(37), 0.703(40), 0.61(20)]
[0.170(40), 0.224(58), 0.09(29)]
A3 of mom 9
[0.856(12), -0.0006(583), 0.43(11)]
[0.044(34), 0.730(45), 0.33(17)]
[0.34(16), 0.37(20), 0.04(49)]
A3 of mom 10
[0.814(11), 0.046(46), 0.44(12)]
[0.100(31), 0.624(39), 0.59(25)]
[-0.208(80), -0.30(12), -0.15(37)]
A3 of mom 13
[0.707(18), 0.215(86), 0.45(16)]
[0.072(52), 0.575(41), 0.72(34)]
[0.094(39), 0.160(59), 0.45(18)]
```

```
Q = 0.9999523004918839
A3 of mom 0
[1.277(12)]
[-0.209(20), 0.832(63)]
[0.439(92), 0.33(12), 0.19(48)]
A3 of mom 1
[1.231(12), -0.177(29), 0.434(92)]
[-0.209(21), 0.858(52), 0.39(13)]
[0.410(73), 0.246(77), 0.31(34)]
A3 of mom 2
[1.156(10), -0.095(29), 0.472(99)]
[-0.161(19), 0.865(41), 0.36(15)]
[0.314(58), 0.160(48), 0.32(31)]
A3 of mom 4
[1.0448(94), -0.046(36), 0.51(12)]
[-0.084(21), 0.847(39), 0.42(19)]
[0.276(67), 0.173(56), 0.09(37)]
A3 of mom 5
[1.0041(93), -0.017(36), 0.48(10)]
[-0.067(22), 0.818(36), 0.45(18)]
[0.261(57), 0.175(51), 0.15(32)]
A3 of mom 8
[0.879(14), 0.114(62), 0.390(87)]
[-0.032(36), 0.712(40), 0.68(22)]
[0.183(41), 0.217(58), 0.0009(3183)]
A3 of mom 9
[0.859(12), -0.038(59), 0.46(11)]
[0.052(31), 0.755(46), 0.25(16)]
[0.49(32), 0.49(38), -0.22(78)]
A3 of mom 10
[0.816(10), 0.013(46), 0.43(10)]
[0.110(29), 0.638(39), 0.49(20)]
[0.28(11), 0.37(17), 0.002(464)]
A3 of mom 13
[0.712(17), 0.174(76), 0.42(13)]
[0.087(53), 0.581(41), 0.71(29)]
[0.115(40), 0.167(53), 0.41(18)]
A3 of mom 16
[0.669(14), 0.102(63), 0.72(56)]
[0.139(50), 0.584(45), 1.2(1.1)]
[0.13(13), 0.17(17), 0.19(51)]


Q = 0.9854121537664267
A3 of mom 0
[1.283(13)]
[-0.219(21), 0.868(61)]
[0.361(51), 0.259(79), 0.39(29)]
A3 of mom 1
[1.234(12), -0.186(29), 0.367(54)]
[-0.216(21), 0.894(51), 0.266(86)]
[0.346(46), 0.181(54), 0.55(20)]
A3 of mom 2
[1.157(10), -0.105(29), 0.388(59)]
[-0.159(20), 0.881(42), 0.218(91)]
[0.282(42), 0.140(40), 0.56(18)]
A3 of mom 4
[1.0451(98), -0.057(37), 0.430(77)]
```

```
[-0.082(22), 0.869(40), 0.23(11)]
[0.250(50), 0.155(43), 0.40(20)]
A3 of mom 5
[0.9963(89), -0.017(34), 0.453(82)]
[-0.047(21), 0.822(36), 0.28(13)]
[0.207(44), 0.153(39), 0.43(18)]
A3 of mom 8
[0.874(13), 0.088(56), 0.334(61)]
[-0.002(36), 0.712(41), 0.48(14)]
[0.172(39), 0.219(54), 0.23(21)]
A3 of mom 9
[0.851(10), -0.035(54), 0.424(89)]
[0.070(28), 0.755(45), 0.11(12)]
[0.41(25), 0.45(31), 0.29(37)]
A3 of mom 10
[0.8080(91), 0.012(41), 0.44(11)]
[0.131(26), 0.640(38), 0.33(17)]
[0.24(10), 0.35(16), 0.31(29)]
A3 of mom 13
[0.708(14), 0.149(62), 0.38(13)]
[0.124(47), 0.574(43), 0.53(23)]
[0.106(44), 0.173(62), 0.45(15)]
A3 of mom 16
[0.666(13), 0.094(55), 0.94(94)]
[0.153(43), 0.587(43), 1.0(1.2)]
[0.09(10), 0.13(14), 0.57(40)]
A3 of mom 17
[0.650(12), 0.073(47), 0.81(69)]
[0.177(39), 0.566(42), 0.79(81)]
[0.11(11), 0.19(19), 0.31(35)]


Q = 0.9920297495033608
A3 of mom 0
[1.285(13)]
[-0.227(21), 0.883(61)]
[0.338(38), 0.220(67), 0.47(23)]
A3 of mom 1
[1.234(12), -0.189(28), 0.343(42)]
[-0.216(21), 0.896(51), 0.251(75)]
[0.318(36), 0.173(47), 0.57(17)]
A3 of mom 2
[1.158(10), -0.116(29), 0.361(47)]
[-0.156(19), 0.880(42), 0.191(78)]
[0.268(35), 0.141(37), 0.59(15)]
A3 of mom 4
[1.0440(94), -0.056(35), 0.419(71)]
[-0.075(21), 0.857(39), 0.22(10)]
[0.218(41), 0.155(38), 0.44(16)]
A3 of mom 5
[0.9933(82), -0.013(32), 0.481(90)]
[-0.036(20), 0.810(35), 0.26(13)]
[0.167(36), 0.142(33), 0.51(14)]
A3 of mom 8
[0.869(12), 0.101(50), 0.339(64)]
[0.011(32), 0.694(39), 0.46(14)]
[0.143(33), 0.196(46), 0.37(15)]
A3 of mom 9
```

```
[0.8472(96), -0.020(49), 0.426(93)]
[0.077(26), 0.731(42), 0.12(11)]
[0.30(13), 0.37(18), 0.45(25)]
A3 of mom 10
[0.8047(82), 0.024(36), 0.48(14)]
[0.140(24), 0.613(37), 0.34(18)]
[0.169(67), 0.28(11), 0.50(20)]
A3 of mom 13
[0.704(13), 0.157(54), 0.44(19)]
[0.138(40), 0.556(41), 0.57(29)]
[0.076(37), 0.137(59), 0.54(12)]
A3 of mom 16
[0.662(10), 0.093(46), 1.4(1.4)]
[0.183(36), 0.541(42), 1.4(1.6)]
[-0.065(85), -0.11(15), -0.94(84)]
A3 of mom 17
[0.647(10), 0.077(43), 0.85(75)]
[0.194(35), 0.530(42), 0.85(86)]
[0.092(91), 0.18(17), 0.43(32)]
A3 of mom 18
[0.607(29), 0.13(13), 0.245(55)]
[0.19(12), 0.505(73), 0.36(12)]
[0.140(56), 0.194(60), 0.43(12)]


Q = 0.9754857697260306
A3 of mom 0
[1.291(13)]
[-0.235(20), 0.915(57)]
[0.345(38), 0.204(65), 0.49(22)]
A3 of mom 1
[1.239(12), -0.194(28), 0.339(40)]
[-0.219(20), 0.912(48), 0.259(72)]
[0.326(36), 0.183(47), 0.53(16)]
A3 of mom 2
[1.163(10), -0.127(29), 0.368(46)]
[-0.154(18), 0.885(41), 0.192(76)]
[0.273(35), 0.157(37), 0.60(15)]
A3 of mom 4
[1.0476(93), -0.060(34), 0.428(71)]
[-0.082(20), 0.876(37), 0.213(99)]
[0.220(40), 0.151(36), 0.43(16)]
A3 of mom 5
[0.9960(82), -0.024(31), 0.466(80)]
[-0.036(19), 0.820(33), 0.25(11)]
[0.180(37), 0.158(35), 0.48(14)]
A3 of mom 8
[0.872(11), 0.094(48), 0.345(64)]
[0.011(31), 0.700(37), 0.44(13)]
[0.145(33), 0.198(45), 0.38(14)]
A3 of mom 9
[0.8476(93), -0.036(47), 0.424(86)]
[0.086(25), 0.736(41), 0.11(11)]
[0.34(15), 0.43(22), 0.40(26)]
A3 of mom 10
[0.8047(77), 0.007(33), 0.55(18)]
[0.153(23), 0.615(35), 0.41(22)]
[0.170(79), 0.29(13), 0.43(23)]
```

```
A3 of mom 13
[0.712(12), 0.119(48), 0.45(19)]
[0.153(38), 0.562(40), 0.62(30)]
[0.079(39), 0.140(61), 0.47(12)]
A3 of mom 16
[0.6636(96), 0.073(40), 1.6(1.5)]
[0.199(34), 0.536(42), 1.8(1.8)]
[0.063(84), 0.11(15), 0.96(97)]
A3 of mom 17
[0.6520(97), 0.041(38), 1.1(1.0)]
[0.212(32), 0.536(41), 1.1(1.1)]
[0.084(90), 0.16(17), 0.26(33)]
A3 of mom 18
[0.622(27), 0.04(11), 0.230(44)]
[0.26(13), 0.499(81), 0.38(12)]
[0.174(60), 0.184(64), 0.40(12)]
A3 of mom 20
[0.600(21), 0.117(93), 0.255(63)]
[0.164(80), 0.484(55), 0.42(14)]
[0.129(47), 0.221(64), 0.47(11)]


Q = 0.8293567752867601
A3 of mom 0
[1.291(13)]
[−0.245(21), 0.928(58)]
[0.346(35), 0.190(63), 0.48(20)]
A3 of mom 1
[1.243(12), −0.222(28), 0.344(37)]
[−0.233(21), 0.933(51), 0.239(65)]
[0.338(34), 0.177(49), 0.49(15)]
A3 of mom 2
[1.168(10), −0.154(30), 0.371(42)]
[−0.166(20), 0.900(43), 0.179(70)]
[0.282(33), 0.164(39), 0.56(14)]
A3 of mom 4
[1.0562(96), −0.094(35), 0.414(58)]
[−0.094(22), 0.895(39), 0.190(85)]
[0.240(37), 0.160(37), 0.40(14)]
A3 of mom 5
[0.9987(81), −0.042(31), 0.463(73)]
[−0.038(19), 0.825(34), 0.23(10)]
[0.182(34), 0.163(34), 0.46(13)]
A3 of mom 8
[0.874(11), 0.083(47), 0.340(58)]
[0.011(31), 0.695(39), 0.41(12)]
[0.145(30), 0.207(43), 0.39(12)]
A3 of mom 9
[0.8443(87), −0.035(44), 0.433(91)]
[0.095(24), 0.713(42), 0.16(12)]
[0.30(12), 0.44(20), 0.26(26)]
A3 of mom 10
[0.8044(72), 0.003(31), 0.58(20)]
[0.159(21), 0.591(35), 0.49(26)]
[0.148(67), 0.28(13), 0.35(22)]
A3 of mom 13
[0.716(11), 0.101(44), 0.42(15)]
[0.162(35), 0.554(41), 0.55(24)]
```

```
[0.088(37), 0.158(60), 0.44(11)]
A3 of mom 16
[0.6685(85), 0.056(36), 1.8(1.7)]
[0.199(28), 0.529(41), 1.8(1.9)]
[-0.07(12), -0.14(22), -0.9(1.1)]
A3 of mom 17
[0.6519(83), 0.036(32), 1.5(1.3)]
[0.218(27), 0.525(40), 1.6(1.6)]
[0.059(60), 0.12(13), 0.02(37)]
A3 of mom 18
[0.642(26), -0.06(11), 0.233(39)]
[0.34(14), 0.51(11), 0.36(15)]
[0.228(58), 0.21(10), 0.33(13)]
A3 of mom 20
[0.611(16), 0.058(69), 0.241(50)]
[0.199(66), 0.482(58), 0.37(12)]
[0.165(51), 0.265(73), 0.37(12)]
A3 of mom 25
[0.535(11), 0.025(46), 0.61(67)]
[0.336(51), 0.409(56), 1.1(1.4)]
[0.053(69), 0.09(12), 0.05(18)]


Q = 0.5220267311733593
A3 of mom 0
[1.280(12)]
[-0.234(20), 0.922(57)]
[0.364(40), 0.197(66), 0.35(24)]
A3 of mom 1
[1.236(11), -0.220(28), 0.366(43)]
[-0.223(20), 0.926(49), 0.242(70)]
[0.367(42), 0.197(55), 0.42(18)]
A3 of mom 2
[1.1628(95), -0.151(29), 0.402(48)]
[-0.166(18), 0.911(41), 0.192(77)]
[0.304(39), 0.174(42), 0.42(17)]
A3 of mom 4
[1.0519(89), -0.088(34), 0.456(68)]
[-0.090(20), 0.887(37), 0.215(98)]
[0.251(43), 0.172(41), 0.34(17)]
A3 of mom 5
[0.9992(80), -0.047(32), 0.460(67)]
[-0.048(19), 0.845(34), 0.217(99)]
[0.224(40), 0.180(40), 0.34(16)]
A3 of mom 8
[0.873(11), 0.073(45), 0.369(62)]
[0.007(29), 0.723(37), 0.42(13)]
[0.167(35), 0.228(51), 0.20(17)]
A3 of mom 9
[0.8409(82), -0.023(43), 0.431(89)]
[0.096(22), 0.701(40), 0.22(13)]
[0.38(22), 0.60(38), -0.05(46)]
A3 of mom 10
[0.8020(69), 0.018(30), 0.60(20)]
[0.148(20), 0.605(34), 0.57(29)]
[0.174(88), 0.32(16), 0.08(33)]
A3 of mom 13
[0.710(10), 0.132(44), 0.50(20)]
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[0.135(32), 0.588(37), 0.59(30)]
[0.085(40), 0.145(63), 0.31(14)]
A3 of mom 16
[0.6630(84), 0.072(36), 1.5(1.5)]
[0.203(28), 0.519(41), 1.9(1.9)]
[-0.09(16), -0.16(31), -0.7(1.1)]
A3 of mom 17
[0.6486(81), 0.051(32), 1.4(1.2)]
[0.210(27), 0.538(38), 1.8(1.7)]
[0.069(74), 0.14(16), -0.40(65)]
A3 of mom 18
[0.616(19), 0.062(85), 0.263(47)]
[0.207(84), 0.572(69), 0.26(11)]
[0.195(58), 0.242(80), 0.20(17)]
A3 of mom 20
[0.595(16), 0.135(71), 0.304(81)]
[0.138(56), 0.529(46), 0.38(15)]
[0.134(46), 0.244(78), 0.26(14)]
A3 of mom 25
[0.522(11), 0.098(43), 0.81(75)]
[0.249(50), 0.469(45), 1.4(1.5)]
[0.035(36), 0.061(61), 0.006(172)]
A3 of mom 32
[0.4627(89), -0.071(97), 0.9(1.0)]
[0.34(12), 0.51(17), 0.4(1.4)]
[0.041(57), 0.14(26), -1.05(77)]


(base) [phyww@node006 ga]$
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