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***a)***. Testcase:

a: 1

b: 2

c: 1.5

(b-c): 0.5

f(c): 1.48419408373401

a: 1

b: 1.5

c: 1.25

(b-c): 0.25

f(c): 0.5413583381062548

a: 1

b: 1.25

c: 1.125

(b-c): 0.125

f(c): 0.17794925481893564

a: 1

b: 1.125

c: 1.0625

(b-c): 0.0625

f(c): 0.020021009004689727

a: 1

b: 1.0625

c: 1.03125

(b-c): 0.03125

f(c): -0.05337248657525717

a: 1.03125

b: 1.0625

c: 1.046875

(b-c): 0.015625

f(c): -0.017129185968210114

a: 1.046875

b: 1.0625

c: 1.0546875

(b-c): 0.0078125

f(c): 0.0013317503233913897

a: 1.046875

b: 1.0546875

c: 1.05078125

(b-c): 0.00390625

f(c): -0.007927157906878923

a: 1.05078125

b: 1.0546875

c: 1.052734375

(b-c): 0.001953125

f(c): -0.00330482632146456

a: 1.052734375

b: 1.0546875

c: 1.0537109375

(b-c): 0.0009765625

f(c): -0.0009883201966292

a: 1.0537109375

b: 1.0546875

c: 1.05419921875

(b-c): 0.00048828125

f(c): 0.0001712693182382985

a: 1.0537109375

b: 1.05419921875

c: 1.053955078125

(b-c): 0.000244140625

f(c): -0.0004086368510085592

a: 1.053955078125

b: 1.05419921875

c: 1.0540771484375

(b-c): 0.0001220703125

f(c): -0.00011871162239751598

a: 1.0540771484375

b: 1.05419921875

c: 1.05413818359375

(b-c): 6.103515625e-05

f(c): 2.6271883535322615e-05

a: 1.0540771484375

b: 1.05413818359375

c: 1.054107666015625

(b-c): 3.0517578125e-05

f(c): -4.6221610479735276e-05

a: 1.054107666015625

b: 1.05413818359375

c: 1.0541229248046875

(b-c): 1.52587890625e-05

f(c): -9.975298740583227e-06

a: 1.0541229248046875

b: 1.05413818359375

c: 1.0541305541992188

(b-c): 7.62939453125e-06

f(c): 8.148183579415047e-06

a: 1.0541229248046875

b: 1.0541305541992188

c: 1.0541267395019531

(b-c): 3.814697265625e-06

f(c): -9.13584784933974e-07

a: 1.0541267395019531

b: 1.0541305541992188

c: 1.054128646850586

(b-c): 1.9073486328125e-06

f(c): 3.61729259612531e-06

a: 1.0541267395019531

b: 1.054128646850586

c: 1.0541276931762695

(b-c): 9.5367431640625e-07

f(c): 1.3518522052891058e-06

a: 1.0541267395019531

b: 1.0541276931762695

c: 1.0541272163391113

(b-c): 4.76837158203125e-07

f(c): 2.1913328529521436e-07

a: 1.0541267395019531

b: 1.0541272163391113

c: 1.0541269779205322

(b-c): 2.384185791015625e-07

f(c): -3.4722585606772327e-07

a: 1.0541269779205322

b: 1.0541272163391113

c: 1.0541270971298218

(b-c): 1.1920928955078125e-07

f(c): -6.404631203160704e-08

a: 1.0541270971298218

b: 1.0541272163391113

c: 1.0541271567344666

(b-c): 5.960464477539063e-08

f(c): 7.754348008148781e-08

a: 1.0541270971298218

b: 1.0541271567344666

c: 1.0541271269321442

(b-c): 2.9802322387695312e-08

f(c): 6.748582581650453e-09

a: 1.0541270971298218

b: 1.0541271269321442

c: 1.054127112030983

(b-c): 1.4901161193847656e-08

f(c): -2.8648865280089808e-08

a: 1.054127112030983

b: 1.0541271269321442

c: 1.0541271194815636

(b-c): 7.450580596923828e-09

f(c): -1.0950141682286585e-08

a: 1.0541271194815636

b: 1.0541271269321442

c: 1.0541271232068539

(b-c): 3.725290298461914e-09

f(c): -2.100779550318066e-09

a: 1.0541271232068539

b: 1.0541271269321442

c: 1.054127125069499

(b-c): 1.862645149230957e-09

f(c): 2.3239015156661935e-09

a: 1.0541271232068539

b: 1.054127125069499

c: 1.0541271241381764

(b-c): 9.313225746154785e-10

f(c): 1.1156053858485393e-10

a: 1.0541271232068539

b: 1.0541271241381764

c: 1.0541271236725152

(b-c): 4.656612873077393e-10

f(c): -9.94609283822001e-10

a: 1.0541271236725152

b: 1.0541271241381764

c: 1.0541271239053458

(b-c): 2.3283064365386963e-10

f(c): -4.4152415057396865e-10

a: 1.0541271239053458

b: 1.0541271241381764

c: 1.0541271240217611

(b-c): 1.1641532182693481e-10

f(c): -1.6498180599455736e-10

a: 1.0541271240217611

b: 1.0541271241381764

c: 1.0541271240799688

(b-c): 5.820766091346741e-11

f(c): -2.671041166024679e-11

Approximate root is: 1.0541271240799688

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***b).*** Testcase:

a: 2

b: 3.5

c: 2.75

(b-c): 0.75

f(c): -0.4491009116784799

a: 2.75

b: 3.5

c: 3.125

(b-c): 0.375

f(c): 0.12619071681163518

a: 2.75

b: 3.125

c: 2.9375

(b-c): 0.1875

f(c): -0.1986526294702773

a: 2.9375

b: 3.125

c: 3.03125

(b-c): 0.09375

f(c): -0.04549851320365628

a: 3.03125

b: 3.125

c: 3.078125

(b-c): 0.046875

f(c): 0.03803287024668345

a: 3.03125

b: 3.078125

c: 3.0546875

(b-c): 0.0234375

f(c): -0.004311573409498504

a: 3.0546875

b: 3.078125

c: 3.06640625

(b-c): 0.01171875

f(c): 0.016716016736216588

a: 3.0546875

b: 3.06640625

c: 3.060546875

(b-c): 0.005859375

f(c): 0.006166056755752658

a: 3.0546875

b: 3.060546875

c: 3.0576171875

(b-c): 0.0029296875

f(c): 0.0009181995684575117

a: 3.0546875

b: 3.0576171875

c: 3.05615234375

(b-c): 0.00146484375

f(c): -0.001698947556684871

a: 3.05615234375

b: 3.0576171875

c: 3.056884765625

(b-c): 0.000732421875

f(c): -0.00039093913939280966

a: 3.056884765625

b: 3.0576171875

c: 3.0572509765625

(b-c): 0.0003662109375

f(c): 0.00026348892993177664

a: 3.056884765625

b: 3.0572509765625

c: 3.05706787109375

(b-c): 0.00018310546875

f(c): -6.376042609557153e-05

a: 3.05706787109375

b: 3.0572509765625

c: 3.057159423828125

(b-c): 9.1552734375e-05

f(c): 9.985542160384497e-05

a: 3.05706787109375

b: 3.057159423828125

c: 3.0571136474609375

(b-c): 4.57763671875e-05

f(c): 1.8045290172130635e-05

a: 3.05706787109375

b: 3.0571136474609375

c: 3.0570907592773438

(b-c): 2.288818359375e-05

f(c): -2.2858119857582793e-05

a: 3.0570907592773438

b: 3.0571136474609375

c: 3.0571022033691406

(b-c): 1.1444091796875e-05

f(c): -2.4065528165806427e-06

a: 3.0571022033691406

b: 3.0571136474609375

c: 3.057107925415039

(b-c): 5.7220458984375e-06

f(c): 7.819334184366866e-06

a: 3.0571022033691406

b: 3.057107925415039

c: 3.05710506439209

(b-c): 2.86102294921875e-06

f(c): 2.7063820604578126e-06

a: 3.0571022033691406

b: 3.05710506439209

c: 3.0571036338806152

(b-c): 1.430511474609375e-06

f(c): 1.4991246599649344e-07

a: 3.0571022033691406

b: 3.0571036338806152

c: 3.057102918624878

(b-c): 7.152557373046875e-07

f(c): -1.1283207141943308e-06

a: 3.057102918624878

b: 3.0571036338806152

c: 3.0571032762527466

(b-c): 3.5762786865234375e-07

f(c): -4.892042588799939e-07

a: 3.0571032762527466

b: 3.0571036338806152

c: 3.057103455066681

(b-c): 1.7881393432617188e-07

f(c): -1.6964592997048555e-07

a: 3.057103455066681

b: 3.0571036338806152

c: 3.057103544473648

(b-c): 8.940696716308594e-08

f(c): -9.866741201847162e-09

a: 3.057103544473648

b: 3.0571036338806152

c: 3.0571035891771317

(b-c): 4.470348358154297e-08

f(c): 7.00228603989217e-08

a: 3.057103544473648

b: 3.0571035891771317

c: 3.05710356682539

(b-c): 2.2351741790771484e-08

f(c): 3.0078060486715685e-08

a: 3.057103544473648

b: 3.05710356682539

c: 3.057103555649519

(b-c): 1.1175870895385742e-08

f(c): 1.0105658754255842e-08

a: 3.057103544473648

b: 3.057103555649519

c: 3.0571035500615835

(b-c): 5.587935447692871e-09

f(c): 1.19459553360457e-10

a: 3.057103544473648

b: 3.0571035500615835

c: 3.057103547267616

(b-c): 2.7939677238464355e-09

f(c): -4.873639936064933e-09

a: 3.057103547267616

b: 3.0571035500615835

c: 3.0571035486645997

(b-c): 1.3969838619232178e-09

f(c): -2.3770903023745404e-09

a: 3.0571035486645997

b: 3.0571035500615835

c: 3.0571035493630916

(b-c): 6.984919309616089e-10

f(c): -1.1288152634847393e-09

a: 3.0571035493630916

b: 3.0571035500615835

c: 3.0571035497123376

(b-c): 3.4924596548080444e-10

f(c): -5.046778550621411e-10

a: 3.0571035497123376

b: 3.0571035500615835

c: 3.0571035498869605

(b-c): 1.7462298274040222e-10

f(c): -1.926090398285396e-10

a: 3.0571035498869605

b: 3.0571035500615835

c: 3.057103549974272

(b-c): 8.731149137020111e-11

f(c): -3.657563141246101e-11

Approximate root is: 3.057103549974272

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