

Call ZM_ROOTS to find the roots of $f(x) = (110\text{th degree polynomial})$

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ZM_ROOTS. Function      1 Root      1 =
-6.9736081298427782718029346318524131325268782039171M-1 - 7.16720235875831180957257793631256644056102786
ZM_ROOTS. Function      1 Root      2 =
-6.9736081298427782718029346318524131325268782039171M-1 + 7.16720235875831180957257793631256644056102786
ZM_ROOTS. Function      1 Root      3 =
6.9459663579459146231437398966206793525392798951870M-1 + 7.19399411692027770539233178575683363599980281
ZM_ROOTS. Function      1 Root      4 =
6.9459663579459146231437398966206793525392798951870M-1 - 7.19399411692027770539233178575683363599980281
ZM_ROOTS. Function      1 Root      5 =
9.9702014614548326696111375450097692483096919833276M-1 - 7.71416112097691918994165256274122268568366203
ZM_ROOTS. Function      1 Root      6 =
9.9702014614548326696111375450097692483096919833276M-1 + 7.71416112097691918994165256274122268568366203
ZM_ROOTS. Function      1 Root      7 =
6.5257375089087743980495867513151732482004036120308M-1 + 7.57725213813167916967052951695045616051230952
ZM_ROOTS. Function      1 Root      8 =
6.5257375089087743980495867513151732482004036120308M-1 - 7.57725213813167916967052951695045616051230952
ZM_ROOTS. Function      1 Root      9 =
-9.2123384359628835321182656038001097503987535785724M-1 + 3.89009261345805658330990089145333242145085236
ZM_ROOTS. Function      1 Root     10 =
-9.2123384359628835321182656038001097503987535785724M-1 - 3.89009261345805658330990089145333242145085236
ZM_ROOTS. Function      1 Root     11 =
6.0841871477566846066363839927203369324878351094250M-1 - 7.93616196603070714285160096336460033466727938
ZM_ROOTS. Function      1 Root     12 =
6.0841871477566846066363839927203369324878351094250M-1 + 7.93616196603070714285160096336460033466727938
ZM_ROOTS. Function      1 Root     13 =
-2.5525886143814302715707932889571375788721110999584M-1 + 9.66872749464635029990760811843910538936789048
ZM_ROOTS. Function      1 Root     14 =
-2.5525886143814302715707932889571375788721110999584M-1 - 9.66872749464635029990760811843910538936789048
ZM_ROOTS. Function      1 Root     15 =
1.9692163175148841622760261485313043172515152677589M-1 + 9.80419232241152636413612201536764175411156176
ZM_ROOTS. Function      1 Root     16 =
1.9692163175148841622760261485313043172515152677589M-1 - 9.80419232241152636413612201536764175411156176
ZM_ROOTS. Function      1 Root     17 =
-2.9910334353626816374182543195665004554946697210605M-2 - 9.99552585859720664800047270934185722324568233
ZM_ROOTS. Function      1 Root     18 =
-2.9910334353626816374182543195665004554946697210605M-2 + 9.99552585859720664800047270934185722324568233
ZM_ROOTS. Function      1 Root     19 =
8.9485162923226569325793812511409229762364342462491M-1 + 4.46363710062052077437972825503599534588399766
ZM_ROOTS. Function      1 Root     20 =
8.9485162923226569325793812511409229762364342462491M-1 - 4.46363710062052077437972825503599534588399766
ZM_ROOTS. Function      1 Root     21 =
-4.1623097776855346952339357167427193314333002446156M-1 - 9.09258914251509522926241481408212564446772908
ZM_ROOTS. Function      1 Root     22 =
-4.1623097776855346952339357167427193314333002446156M-1 + 9.09258914251509522926241481408212564446772908
ZM_ROOTS. Function      1 Root     23 =
8.3874642704983468236362304836972441753960019860919M-1 + 5.44522204424334148246339961809767557102732148
ZM_ROOTS. Function      1 Root     24 =
8.3874642704983468236362304836972441753960019860919M-1 - 5.44522204424334148246339961809767557102732148
ZM_ROOTS. Function      1 Root     25 =
-9.8537429817684471555986132672893006679937326256770M-1 + 1.70403909850950078102356934635836823422917337
ZM_ROOTS. Function      1 Root     26 =
-9.8537429817684471555986132672893006679937326256770M-1 - 1.70403909850950078102356934635836823422917337
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ZM_ROOTS. Function 1 Root 27 =
-8.0928375833076626205093815181540874353028349068404M-1 - 5.87417907883331310298246871696180170646416857

ZM_ROOTS. Function 1 Root 28 =
-8.0928375833076626205093815181540874353028349068404M-1 + 5.87417907883331310298246871696180170646416857

ZM_ROOTS. Function 1 Root 29 =
-8.6850101864613477317375619900949362311284695938512M-2 + 9.96221390959914222314107137045907421208878297

ZM_ROOTS. Function 1 Root 30 =
-8.6850101864613477317375619900949362311284695938512M-2 - 9.96221390959914222314107137045907421208878297

ZM_ROOTS. Function 1 Root 31 =
9.8312044132836315303369104925086834653224371841508M-1 - 1.82959552476290407149825725940488788283265124

ZM_ROOTS. Function 1 Root 32 =
9.8312044132836315303369104925086834653224371841508M-1 + 1.82959552476290407149825725940488788283265124

ZM_ROOTS. Function 1 Root 33 =
-3.6369698750052786196415721203883708777531528420522M-1 - 9.31517311316886305850532480623058446080894483

ZM_ROOTS. Function 1 Root 34 =
-3.6369698750052786196415721203883708777531528420522M-1 + 9.31517311316886305850532480623058446080894483

ZM_ROOTS. Function 1 Root 35 =
2.7122524398530407085369994678508724361304815466999M-2 + 9.99632116666051862991436239016809896159785849

ZM_ROOTS. Function 1 Root 36 =
2.7122524398530407085369994678508724361304815466999M-2 - 9.99632116666051862991436239016809896159785849

ZM_ROOTS. Function 1 Root 37 =
-9.9349084217982552378273425718476872917525963600237M-1 - 1.13912012118217865740480260986656046415513720

ZM_ROOTS. Function 1 Root 38 =
-9.9349084217982552378273425718476872917525963600237M-1 + 1.13912012118217865740480260986656046415513720

ZM_ROOTS. Function 1 Root 39 =
4.6463106701481629010588141502503264615195071189327M-1 + 8.85504359991905005209664071518372475592328393

ZM_ROOTS. Function 1 Root 40 =
4.6463106701481629010588141502503264615195071189327M-1 - 8.85504359991905005209664071518372475592328393

ZM_ROOTS. Function 1 Root 41 =
9.5700452680022113764915763383217281219333819810395M-1 + 2.90072983374675591826900026085797011144675639

ZM_ROOTS. Function 1 Root 42 =
9.5700452680022113764915763383217281219333819810395M-1 - 2.90072983374675591826900026085797011144675639

ZM_ROOTS. Function 1 Root 43 =
-8.4147527891190522306860021910382452367829351801487M-1 - 5.40295618138932636102299298939871517160101219

ZM_ROOTS. Function 1 Root 44 =
-8.4147527891190522306860021910382452367829351801487M-1 + 5.40295618138932636102299298939871517160101219

ZM_ROOTS. Function 1 Root 45 =
-5.6505135888522169717213011150492671544771430066125M-1 - 8.25055732555058604617959756067821893633800896

ZM_ROOTS. Function 1 Root 46 =
-5.6505135888522169717213011150492671544771430066125M-1 + 8.25055732555058604617959756067821893633800896

ZM_ROOTS. Function 1 Root 47 =
7.7170630731941418214400566118602312880136978870617M-1 + 6.35979068243156783445660083381642085724651137

ZM_ROOTS. Function 1 Root 48 =
7.7170630731941418214400566118602312880136978870617M-1 - 6.35979068243156783445660083381642085724651137

ZM_ROOTS. Function 1 Root 49 =
-9.5954956471742718012496800578977995315615825997972M-1 + 2.81539753588362770847856892449400018251497781

ZM_ROOTS. Function 1 Root 50 =
-9.5954956471742718012496800578977995315615825997972M-1 - 2.81539753588362770847856892449400018251497781

ZM_ROOTS. Function 1 Root 51 =
8.4062459238462888911916025317659243502452968326836M-2 - 9.96460487398663372258655337555658948422899126

ZM_ROOTS. Function 1 Root 52 =
8.4062459238462888911916025317659243502452968326836M-2 + 9.96460487398663372258655337555658948422899126

ZM_ROOTS. Function 1 Root 53 =
9.9967321455670056134902604545041320486417389626361M-1 + 2.55629438420719629627388547459061824639458329

ZM_ROOTS. Function 1 Root 54 =
9.9967321455670056134902604545041320486417389626361M-1 - 2.55629438420719629627388547459061824639458329

ZM_ROOTS. Function 1 Root 55 =
3.6091301175141371317002770560661848047456278549108M-1 + 9.32599484209874473261857406713553745454407318

ZM_ROOTS. Function 1 Root 56 =
3.6091301175141371317002770560661848047456278549108M-1 - 9.32599484209874473261857406713553745454407318

ZM_ROOTS. Function 1 Root 57 =
-6.5534270761474455083905149625072515279735414012467M-1 - 7.55331672562573953727226617653805976014415555

ZM_ROOTS. Function 1 Root 58 =
-6.5534270761474455083905149625072515279735414012467M-1 + 7.55331672562573953727226617653805976014415555

ZM_ROOTS. Function 1 Root 59 =
-8.9754175905844145634717496645980383590445395581956M-1 + 4.40929462325073741425540521786935375585150295

ZM_ROOTS. Function 1 Root 60 =
-8.9754175905844145634717496645980383590445395581956M-1 - 4.40929462325073741425540521786935375585150295

ZM_ROOTS. Function 1 Root 61 =
9.1857495053149539008219089245732097848700185901142M-1 + 3.95246834593347245667619574811257378630217540

ZM_ROOTS. Function 1 Root 62 =
9.1857495053149539008219089245732097848700185901142M-1 - 3.95246834593347245667619574811257378630217540

ZM_ROOTS. Function 1 Root 63 =
-5.1707262166174416510362756351800852983190749453720M-1 + 8.55941530671254891878147709650656762470513139

ZM_ROOTS. Function 1 Root 64 =
-5.1707262166174416510362756351800852983190749453720M-1 - 8.55941530671254891878147709650656762470513139

ZM_ROOTS. Function 1 Root 65 =
4.1344844518675880409825153462927707371840687161794M-1 + 9.10527530156365838082736183358342784700257989

ZM_ROOTS. Function 1 Root 66 =
4.1344844518675880409825153462927707371840687161794M-1 - 9.10527530156365838082736183358342784700257989

ZM_ROOTS. Function 1 Root 67 =
8.0654252704344731006123437087686748356900966351223M-1 + 5.91176075353502498707231450633061374395206825

ZM_ROOTS. Function 1 Root 68 =
8.0654252704344731006123437087686748356900966351223M-1 - 5.91176075353502498707231450633061374395206825

ZM_ROOTS. Function 1 Root 69 =
5.1429400061598085724002444330533288507148781663540M-1 + 8.57613946324574109437591263765487679289046110

ZM_ROOTS. Function 1 Root 70 =
5.1429400061598085724002444330533288507148781663540M-1 - 8.57613946324574109437591263765487679289046110

ZM_ROOTS. Function 1 Root 71 =
-9.4192560931937536265788610228454896958805594584972M-1 - 3.35821599228404981038131634990658091577596236

ZM_ROOTS. Function 1 Root 72 =
-9.4192560931937536265788610228454896958805594584972M-1 + 3.35821599228404981038131634990658091577596236

ZM_ROOTS. Function 1 Root 73 =
-1.9970841608806152811276258775397157414757374779418M-1 - 9.79855371237815732887282542072689462050499261

ZM_ROOTS. Function 1 Root 74 =
-1.9970841608806152811276258775397157414757374779418M-1 + 9.79855371237815732887282542072689462050499261

ZM_ROOTS. Function 1 Root 75 =
-8.7092663349754926849897544997386248031423399140659M-1 + 4.91413063587676200089363623687257078909176463

ZM_ROOTS. Function 1 Root 76 =
-8.7092663349754926849897544997386248031423399140659M-1 - 4.91413063587676200089363623687257078909176463

ZM_ROOTS. Function 1 Root 77 =
7.3435058055976593550033506921361658608227329829845M-1 + 6.78770377102252983175177021862352661424733938

ZM_ROOTS. Function 1 Root 78 =
7.3435058055976593550033506921361658608227329829845M-1 - 6.78770377102252983175177021862352661424733938

ZM_ROOTS. Function 1 Root 79 =
1.4072376077318789841073854432321585156711679327755M-1 + 9.90048899375101867448147507166673113030390027

ZM_ROOTS. Function 1 Root 80 =
1.4072376077318789841073854432321585156711679327755M-1 - 9.90048899375101867448147507166673113030390027

ZM_ROOTS. Function 1 Root 81 =
9.9155814022616680310583219985510562864493128759553M-1 - 1.29662849541514128772847753142450920060180746

ZM_ROOTS. Function 1 Root 82 =
9.9155814022616680310583219985510562864493128759553M-1 + 1.29662849541514128772847753142450920060180746

ZM_ROOTS. Function 1 Root 83 =
5.6227534596099014299621205097345503863500979597423M-1 + 8.26950080309838802839772947364865232457625875

ZM_ROOTS. Function 1 Root 84 =
5.6227534596099014299621205097345503863500979597423M-1 - 8.26950080309838802839772947364865232457625875

ZM_ROOTS. Function 1 Root 85 =
-7.3710881717991232322009088122306129133205024806506M-1 + 6.75774068484157352474982492089596333048840755

ZM_ROOTS. Function 1 Root 86 =
-7.3710881717991232322009088122306129133205024806506M-1 - 6.75774068484157352474982492089596333048840755

ZM_ROOTS. Function 1 Root 87 =
-9.9837138250495732335482475734571095088231215630081M-1 + 5.70489491151256370578330072676261875699652060

ZM_ROOTS. Function 1 Root 88 =
-9.9837138250495732335482475734571095088231215630081M-1 - 5.70489491151256370578330072676261875699652060

ZM_ROOTS. Function 1 Root 89 =
9.7161203652866932858507356101060374997443715114579M-1 - 2.36579902934741560194268558392644608700285537

ZM_ROOTS. Function 1 Root 90 =
9.7161203652866932858507356101060374997443715114579M-1 + 2.36579902934741560194268558392644608700285537

ZM_ROOTS. Function 1 Root 91 =
-3.0998121404806046897589098836482583164127761730326M-1 + 9.50742681768989752217315729037198660395127246

ZM_ROOTS. Function 1 Root 92 =
-3.0998121404806046897589098836482583164127761730326M-1 - 9.50742681768989752217315729037198660395127246

ZM_ROOTS. Function 1 Root 93 =
-4.6741183482569273930668160182363569829617702935057M-1 + 8.84039691792670205171967541310298818489648912

ZM_ROOTS. Function 1 Root 94 =
-4.6741183482569273930668160182363569829617702935057M-1 - 8.84039691792670205171967541310298818489648912

ZM_ROOTS. Function 1 Root 95 =
-7.7445707246131796140344589851243458810597442954815M-1 + 6.32626463969572569514904507232205344763764209

ZM_ROOTS. Function 1 Root 96 =
-7.7445707246131796140344589851243458810597442954815M-1 - 6.32626463969572569514904507232205344763764209

ZM_ROOTS. Function 1 Root 97 =
3.0719607061760985684035042348273636788170044783545M-1 - 9.51646244251034943361948994836488980770539678

ZM_ROOTS. Function 1 Root 98 =
3.0719607061760985684035042348273636788170044783545M-1 + 9.51646244251034943361948994836488980770539678

ZM_ROOTS. Function 1 Root 99 =
8.6821419462527311918105585002614559778401191908691M-1 + 4.96189593050064250548715566720601092607225975

ZM_ROOTS. Function 1 Root 100 =
8.6821419462527311918105585002614559778401191908691M-1 - 4.96189593050064250548715566720601092607225975

ZM_ROOTS. Function 1 Root 101 =
-1.4351106445894258462492558952458647331820364313198M-1 + 9.89648712613653242517399031091081714078098018

ZM_ROOTS. Function 1 Root 102 =
-1.4351106445894258462492558952458647331820364313198M-1 - 9.89648712613653242517399031091081714078098018

ZM_ROOTS. Function 1 Root 103 =
-6.1119155313990210349321079386181431009591322654377M-1 - 7.91482713248011641736863283132521429682610705

ZM_ROOTS. Function 1 Root 104 =
-6.1119155313990210349321079386181431009591322654377M-1 + 7.91482713248011641736863283132521429682610705

ZM_ROOTS. Function 1 Root 105 =
-9.7404822471375991859257625435506024878494788548451M-1 - 2.26340575089780712864936483283974482644864767

ZM_ROOTS. Function 1 Root 106 =
-9.7404822471375991859257625435506024878494788548451M-1 + 2.26340575089780712864936483283974482644864767

ZM_ROOTS. Function 1 Root 107 =
9.3931202847645706068228202284694428765078311286551M-1 + 3.43064007379735946446871792069821535758687432

ZM_ROOTS. Function 1 Root 108 =
9.3931202847645706068228202284694428765078311286551M-1 - 3.43064007379735946446871792069821535758687432

ZM_ROOTS. Function 1 Root 109 =
2.5247279065797749862133163097034553123105728827168M-1 + 9.67603994399244442215154801177711118186999811

ZM_ROOTS. Function 1 Root 110 =
2.5247279065797749862133163097034553123105728827168M-1 - 9.67603994399244442215154801177711118186999811

Sort these roots by argument and check how close they lie to the unit circle.

9.9967321455670056134902604545041320486417389626361M-1 + 2.55629438420719629627388547459061824639458329
Argument (degrees) = 1.4648083569 Magnitude = 1.0000000000

9.9702014614548326696111375450097692483096919833276M-1 + 7.71416112097691918994165256274122268568366203
Argument (degrees) = 4.4242841942 Magnitude = 1.0000000000

9.9155814022616680310583219985510562864493128759553M-1 + 1.29662849541514128772847753142450920060180746
Argument (degrees) = 7.4501101223 Magnitude = 1.0000000000

9.8312044132836315303369104925086834653224371841508M-1 + 1.82959552476290407149825725940488788283265124
Argument (degrees) = 10.5421930519 Magnitude = 1.0000000000

9.7161203652866932858507356101060374997443715114579M-1 + 2.36579902934741560194268558392644608700285537
Argument (degrees) = 13.6847709580 Magnitude = 1.0000000000

9.5700452680022113764915763383217281219333819810395M-1 + 2.90072983374675591826900026085797011144675639
Argument (degrees) = 16.8623254804 Magnitude = 1.0000000000

9.3931202847645706068228202284694428765078311286551M-1 + 3.43064007379735946446871792069821535758687432
Argument (degrees) = 20.0636602986 Magnitude = 1.0000000000

9.1857495053149539008219089245732097848700185901142M-1 + 3.95246834593347245667619574811257378630217540
Argument (degrees) = 23.2813693900 Magnitude = 1.0000000000

8.9485162923226569325793812511409229762364342462491M-1 + 4.46363710062052077437972825503599534588399766
Argument (degrees) = 26.5106215997 Magnitude = 1.0000000000

8.6821419462527311918105585002614559778401191908691M-1 + 4.96189593050064250548715566720601092607225975
Argument (degrees) = 29.7482240801 Magnitude = 1.0000000000

8.3874642704983468236362304836972441753960019860919M-1 + 5.44522204424334148246339961809767557102732148
Argument (degrees) = 32.9920188006 Magnitude = 1.0000000000

8.0654252704344731006123437087686748356900966351223M-1 + 5.91176075353502498707231450633061374395206825
Argument (degrees) = 36.2405105632 Magnitude = 1.0000000000

7.7170630731941418214400566118602312880136978870617M-1 + 6.35979068243156783445660083381642085724651137
Argument (degrees) = 39.4926380102 Magnitude = 1.0000000000

7.3435058055976593550033506921361658608227329829845M-1 + 6.78770377102252983175177021862352661424733938
Argument (degrees) = 42.7476305375 Magnitude = 1.0000000000

6.9459663579459146231437398966206793525392798951870M-1 + 7.19399411692027770539233178575683363599980281
Argument (degrees) = 46.0049169936 Magnitude = 1.0000000000

6.5257375089087743980495867513151732482004036120308M-1 + 7.57725213813167916967052951695045616051230952
Argument (degrees) = 49.2640660911 Magnitude = 1.0000000000

6.0841871477566846066363839927203369324878351094250M-1 + 7.93616196603070714285160096336460033466727938
Argument (degrees) = 52.5247466361 Magnitude = 1.0000000000

5.6227534596099014299621205097345503863500979597423M-1 + 8.26950080309838802839772947364865232457625875
Argument (degrees) = 55.7867004129 Magnitude = 1.0000000000

5.1429400061598085724002444330533288507148781663540M-1 + 8.57613946324574109437591263765487679289046110
Argument (degrees) = 59.0497233266 Magnitude = 1.0000000000

4.6463106701481629010588141502503264615195071189327M-1 + 8.85504359991905005209664071518372475592328393
Argument (degrees) = 62.3136520451 Magnitude = 1.0000000000

4.1344844518675880409825153462927707371840687161794M-1 + 9.10527530156365838082736183358342784700257989
Argument (degrees) = 65.5783543740 Magnitude = 1.0000000000

3.6091301175141371317002770560661848047456278549108M-1 + 9.32599484209874473261857406713553745454407318
Argument (degrees) = 68.8437222137 Magnitude = 1.0000000000

3.0719607061760985684035042348273636788170044783545M-1 + 9.51646244251034943361948994836488980770539678
Argument (degrees) = 72.1096663298 Magnitude = 1.0000000000

2.5247279065797749862133163097034553123105728827168M-1 + 9.67603994399244442215154801177711118186999811
Argument (degrees) = 75.3761124197 Magnitude = 1.0000000000

1.9692163175148841622760261485313043172515152677589M-1 + 9.80419232241152636413612201536764175411156176
Argument (degrees) = 78.6429981166 Magnitude = 1.0000000000

1.4072376077318789841073854432321585156711679327755M-1 + 9.90048899375101867448147507166673113030390027
Argument (degrees) = 81.9102706829 Magnitude = 1.0000000000

8.4062459238462888911916025317659243502452968326836M-2 + 9.96460487398663372258655337555658948422899126
Argument (degrees) = 85.1778852145 Magnitude = 1.0000000000

2.7122524398530407085369994678508724361304815466999M-2 + 9.99632116666051862991436239016809896159785849
Argument (degrees) = 88.4458032299 Magnitude = 1.0000000000

-2.9910334353626816374182543195665004554946697210605M-2 + 9.99552585859720664800047270934185722324568233
Argument (degrees) = 91.7139915513 Magnitude = 1.0000000000

-8.6850101864613477317375619900949362311284695938512M-2 + 9.96221390959914222314107137045907421208878297
Argument (degrees) = 94.9824214103 Magnitude = 1.0000000000

-1.4351106445894258462492558952458647331820364313198M-1 + 9.89648712613653242517399031091081714078098018
Argument (degrees) = 98.2510677265 Magnitude = 1.0000000000

-1.9970841608806152811276258775397157414757374779418M-1 + 9.79855371237815732887282542072689462050499261
Argument (degrees) = 101.5199085222 Magnitude = 1.0000000000

-2.5525886143814302715707932889571375788721110999584M-1 + 9.66872749464635029990760811843910538936789048
Argument (degrees) = 104.7889244434 Magnitude = 1.0000000000

-3.0998121404806046897589098836482583164127761730326M-1 + 9.50742681768989752217315729037198660395127246
Argument (degrees) = 108.0580983661 Magnitude = 1.0000000000

-3.6369698750052786196415721203883708777531528420522M-1 + 9.31517311316886305850532480623058446080894483
Argument (degrees) = 111.3274150696 Magnitude = 1.0000000000

-4.1623097776855346952339357167427193314333002446156M-1 + 9.09258914251509522926241481408212564446772908
Argument (degrees) = 114.5968609646 Magnitude = 1.0000000000

-4.6741183482569273930668160182363569829617702935057M-1 + 8.84039691792670205171967541310298818489648912

Argument (degrees) = 117.8664238655 Magnitude = 1.0000000000

-5.1707262166174416510362756351800852983190749453720M-1 + 8.55941530671254891878147709650656762470513139
Argument (degrees) = 121.1360927983 Magnitude = 1.0000000000

-5.6505135888522169717213011150492671544771430066125M-1 + 8.25055732555058604617959756067821893633800896
Argument (degrees) = 124.4058578378 Magnitude = 1.0000000000

-6.1119155313990210349321079386181431009591322654377M-1 + 7.91482713248011641736863283132521429682610705
Argument (degrees) = 127.6757099695 Magnitude = 1.0000000000

-6.5534270761474455083905149625072515279735414012467M-1 + 7.55331672562573953727226617653805976014415555
Argument (degrees) = 130.9456409705 Magnitude = 1.0000000000

-6.9736081298427782718029346318524131325268782039171M-1 + 7.16720235875831180957257793631256644056102786
Argument (degrees) = 134.2156433079 Magnitude = 1.0000000000

-7.3710881717991232322009088122306129133205024806506M-1 + 6.75774068484157352474982492089596333048840755
Argument (degrees) = 137.4857100507 Magnitude = 1.0000000000

-7.7445707246131796140344589851243458810597442954815M-1 + 6.32626463969572569514904507232205344763764209
Argument (degrees) = 140.7558347925 Magnitude = 1.0000000000

-8.0928375833076626205093815181540874353028349068404M-1 + 5.87417907883331310298246871696180170646416857
Argument (degrees) = 144.0260115851 Magnitude = 1.0000000000

-8.4147527891190522306860021910382452367829351801487M-1 + 5.40295618138932636102299298939871517160101219
Argument (degrees) = 147.2962348796 Magnitude = 1.0000000000

-8.7092663349754926849897544997386248031423399140659M-1 + 4.91413063587676200089363623687257078909176463
Argument (degrees) = 150.5664994735 Magnitude = 1.0000000000

-8.9754175905844145634717496645980383590445395581956M-1 + 4.40929462325073741425540521786935375585150295
Argument (degrees) = 153.8368004653 Magnitude = 1.0000000000

-9.2123384359628835321182656038001097503987535785724M-1 + 3.89009261345805658330990089145333242145085236
Argument (degrees) = 157.1071332123 Magnitude = 1.0000000000

-9.4192560931937536265788610228454896958805594584972M-1 + 3.35821599228404981038131634990658091577596236
Argument (degrees) = 160.3774932933 Magnitude = 1.0000000000

-9.5954956471742718012496800578977995315615825997972M-1 + 2.81539753588362770847856892449400018251497781
Argument (degrees) = 163.6478764741 Magnitude = 1.0000000000

-9.7404822471375991859257625435506024878494788548451M-1 + 2.26340575089780712864936483283974482644864767
Argument (degrees) = 166.9182786764 Magnitude = 1.0000000000

-9.8537429817684471555986132672893006679937326256770M-1 + 1.70403909850950078102356934635836823422917337
Argument (degrees) = 170.1886959485 Magnitude = 1.0000000000

-9.9349084217982552378273425718476872917525963600237M-1 + 1.13912012118217865740480260986656046415513720
Argument (degrees) = 173.4591244380 Magnitude = 1.0000000000

-9.9837138250495732335482475734571095088231215630081M-1 + 5.70489491151256370578330072676261875699652060
Argument (degrees) = 176.7295603655 Magnitude = 1.0000000000

-9.9837138250495732335482475734571095088231215630081M-1 - 5.70489491151256370578330072676261875699652060
Argument (degrees) = 183.2704396345 Magnitude = 1.0000000000

-9.9349084217982552378273425718476872917525963600237M-1 - 1.13912012118217865740480260986656046415513720
Argument (degrees) = 186.5408755620 Magnitude = 1.0000000000

-9.8537429817684471555986132672893006679937326256770M-1 - 1.70403909850950078102356934635836823422917337
Argument (degrees) = 189.8113040515 Magnitude = 1.0000000000

-9.7404822471375991859257625435506024878494788548451M-1 - 2.26340575089780712864936483283974482644864767
Argument (degrees) = 193.0817213236 Magnitude = 1.0000000000

-9.5954956471742718012496800578977995315615825997972M-1 - 2.81539753588362770847856892449400018251497781
Argument (degrees) = 196.3521235259 Magnitude = 1.0000000000

-9.4192560931937536265788610228454896958805594584972M-1 - 3.35821599228404981038131634990658091577596236
Argument (degrees) = 199.6225067067 Magnitude = 1.0000000000

-9.2123384359628835321182656038001097503987535785724M-1 - 3.89009261345805658330990089145333242145085236
Argument (degrees) = 202.8928667877 Magnitude = 1.0000000000

-8.9754175905844145634717496645980383590445395581956M-1 - 4.40929462325073741425540521786935375585150295
Argument (degrees) = 206.1631995347 Magnitude = 1.0000000000

-8.7092663349754926849897544997386248031423399140659M-1 - 4.91413063587676200089363623687257078909176463
Argument (degrees) = 209.4335005265 Magnitude = 1.0000000000

-8.4147527891190522306860021910382452367829351801487M-1 - 5.40295618138932636102299298939871517160101219
Argument (degrees) = 212.7037651204 Magnitude = 1.0000000000

-8.0928375833076626205093815181540874353028349068404M-1 - 5.87417907883331310298246871696180170646416857
Argument (degrees) = 215.9739884149 Magnitude = 1.0000000000

-7.7445707246131796140344589851243458810597442954815M-1 - 6.32626463969572569514904507232205344763764209
Argument (degrees) = 219.2441652075 Magnitude = 1.0000000000

-7.3710881717991232322009088122306129133205024806506M-1 - 6.75774068484157352474982492089596333048840755
Argument (degrees) = 222.5142899493 Magnitude = 1.0000000000

-6.9736081298427782718029346318524131325268782039171M-1 - 7.16720235875831180957257793631256644056102786
Argument (degrees) = 225.7843566921 Magnitude = 1.0000000000

-6.5534270761474455083905149625072515279735414012467M-1 - 7.55331672562573953727226617653805976014415555
Argument (degrees) = 229.0543590295 Magnitude = 1.0000000000

-6.1119155313990210349321079386181431009591322654377M-1 - 7.91482713248011641736863283132521429682610705
Argument (degrees) = 232.3242900305 Magnitude = 1.0000000000

-5.6505135888522169717213011150492671544771430066125M-1 - 8.25055732555058604617959756067821893633800896
Argument (degrees) = 235.5941421622 Magnitude = 1.0000000000

-5.1707262166174416510362756351800852983190749453720M-1 - 8.55941530671254891878147709650656762470513139
Argument (degrees) = 238.8639072017 Magnitude = 1.0000000000

-4.6741183482569273930668160182363569829617702935057M-1 - 8.84039691792670205171967541310298818489648912
Argument (degrees) = 242.1335761345 Magnitude = 1.0000000000

-4.1623097776855346952339357167427193314333002446156M-1 - 9.09258914251509522926241481408212564446772908
Argument (degrees) = 245.4031390354 Magnitude = 1.0000000000

-3.6369698750052786196415721203883708777531528420522M-1 - 9.31517311316886305850532480623058446080894483
Argument (degrees) = 248.6725849304 Magnitude = 1.0000000000

-3.0998121404806046897589098836482583164127761730326M-1 - 9.50742681768989752217315729037198660395127246
Argument (degrees) = 251.9419016339 Magnitude = 1.0000000000

-2.5525886143814302715707932889571375788721110999584M-1 - 9.66872749464635029990760811843910538936789048
Argument (degrees) = 255.2110755566 Magnitude = 1.0000000000

-1.9970841608806152811276258775397157414757374779418M-1 - 9.79855371237815732887282542072689462050499261
Argument (degrees) = 258.4800914778 Magnitude = 1.0000000000

-1.4351106445894258462492558952458647331820364313198M-1 - 9.89648712613653242517399031091081714078098018
Argument (degrees) = 261.7489322735 Magnitude = 1.0000000000

-8.6850101864613477317375619900949362311284695938512M-2 - 9.96221390959914222314107137045907421208878297
Argument (degrees) = 265.0175785897 Magnitude = 1.0000000000

-2.9910334353626816374182543195665004554946697210605M-2 - 9.99552585859720664800047270934185722324568233
Argument (degrees) = 268.2860084487 Magnitude = 1.0000000000

2.7122524398530407085369994678508724361304815466999M-2 - 9.99632116666051862991436239016809896159785849
Argument (degrees) = 271.5541967701 Magnitude = 1.0000000000

8.4062459238462888911916025317659243502452968326836M-2 - 9.96460487398663372258655337555658948422899126
Argument (degrees) = 274.8221147855 Magnitude = 1.0000000000

1.4072376077318789841073854432321585156711679327755M-1 - 9.90048899375101867448147507166673113030390027
Argument (degrees) = 278.0897293171 Magnitude = 1.0000000000

1.9692163175148841622760261485313043172515152677589M-1 - 9.80419232241152636413612201536764175411156176
Argument (degrees) = 281.3570018834 Magnitude = 1.0000000000

2.5247279065797749862133163097034553123105728827168M-1 - 9.67603994399244442215154801177711118186999811
Argument (degrees) = 284.6238875803 Magnitude = 1.0000000000

3.0719607061760985684035042348273636788170044783545M-1 - 9.51646244251034943361948994836488980770539678
Argument (degrees) = 287.8903336702 Magnitude = 1.0000000000

3.6091301175141371317002770560661848047456278549108M-1 - 9.32599484209874473261857406713553745454407318
Argument (degrees) = 291.1562777863 Magnitude = 1.0000000000

4.1344844518675880409825153462927707371840687161794M-1 - 9.10527530156365838082736183358342784700257989
Argument (degrees) = 294.4216456260 Magnitude = 1.0000000000

4.6463106701481629010588141502503264615195071189327M-1 - 8.85504359991905005209664071518372475592328393
Argument (degrees) = 297.6863479549 Magnitude = 1.0000000000

5.1429400061598085724002444330533288507148781663540M-1 - 8.57613946324574109437591263765487679289046110
Argument (degrees) = 300.9502766734 Magnitude = 1.0000000000

5.6227534596099014299621205097345503863500979597423M-1 - 8.26950080309838802839772947364865232457625875

Argument (degrees) = 304.2132995871 Magnitude = 1.0000000000

6.0841871477566846066363839927203369324878351094250M-1 - 7.93616196603070714285160096336460033466727938
Argument (degrees) = 307.4752533639 Magnitude = 1.0000000000

6.5257375089087743980495867513151732482004036120308M-1 - 7.57725213813167916967052951695045616051230952
Argument (degrees) = 310.7359339089 Magnitude = 1.0000000000

6.9459663579459146231437398966206793525392798951870M-1 - 7.19399411692027770539233178575683363599980281
Argument (degrees) = 313.9950830064 Magnitude = 1.0000000000

7.3435058055976593550033506921361658608227329829845M-1 - 6.78770377102252983175177021862352661424733938
Argument (degrees) = 317.2523694625 Magnitude = 1.0000000000

7.7170630731941418214400566118602312880136978870617M-1 - 6.35979068243156783445660083381642085724651137
Argument (degrees) = 320.5073619898 Magnitude = 1.0000000000

8.0654252704344731006123437087686748356900966351223M-1 - 5.91176075353502498707231450633061374395206825
Argument (degrees) = 323.7594894368 Magnitude = 1.0000000000

8.3874642704983468236362304836972441753960019860919M-1 - 5.44522204424334148246339961809767557102732148
Argument (degrees) = 327.0079811994 Magnitude = 1.0000000000

8.6821419462527311918105585002614559778401191908691M-1 - 4.96189593050064250548715566720601092607225975
Argument (degrees) = 330.2517759199 Magnitude = 1.0000000000

8.9485162923226569325793812511409229762364342462491M-1 - 4.46363710062052077437972825503599534588399766
Argument (degrees) = 333.4893784003 Magnitude = 1.0000000000

9.1857495053149539008219089245732097848700185901142M-1 - 3.95246834593347245667619574811257378630217540
Argument (degrees) = 336.7186306100 Magnitude = 1.0000000000

9.3931202847645706068228202284694428765078311286551M-1 - 3.43064007379735946446871792069821535758687432
Argument (degrees) = 339.9363397014 Magnitude = 1.0000000000

9.5700452680022113764915763383217281219333819810395M-1 - 2.90072983374675591826900026085797011144675639
Argument (degrees) = 343.1376745196 Magnitude = 1.0000000000

9.7161203652866932858507356101060374997443715114579M-1 - 2.36579902934741560194268558392644608700285537
Argument (degrees) = 346.3152290420 Magnitude = 1.0000000000

9.8312044132836315303369104925086834653224371841508M-1 - 1.82959552476290407149825725940488788283265124
Argument (degrees) = 349.4578069481 Magnitude = 1.0000000000

9.9155814022616680310583219985510562864493128759553M-1 - 1.29662849541514128772847753142450920060180746
Argument (degrees) = 352.5498898777 Magnitude = 1.0000000000

9.9702014614548326696111375450097692483096919833276M-1 - 7.71416112097691918994165256274122268568366203
Argument (degrees) = 355.5757158058 Magnitude = 1.0000000000

9.9967321455670056134902604545041320486417389626361M-1 - 2.55629438420719629627388547459061824639458329
Argument (degrees) = 358.5351916431 Magnitude = 1.0000000000

All roots lie on the unit circle within error 0.0000000E+00