A KWIC Index to SACLIB Functions

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March 12, 1993

Abstract

This paper solely consists of an automatically generated "KeyWord In Context" index of all functions provided by SACLIB.

absolute

ABS Absolute value.
IABSF Integer absolute value function.
IPABS Integral polynomial absolute value.
RNABS Rational number absolute value.
SFRABS Single-precision floating-point real absolute value.

adjoin

MIAIM Matrix of integers, adjoin identity matrix.
VIAZ Vector of integers, adjoin zeros.

advance

AADV Arithmetic advance.
ADV Advance.
ADV2 Advance 2.
ADV3 Advance 3.
ADV4 Advance 4.

after

IPVCHT Integral polynomial variations after circle to half-plane transformation.

algebraic

AFCOMP Algebraic number field comparison.
AFCR Algebraic number field element convert representation.
AFDIF Algebraic number field element difference.
AFDWRITE Algebraic number field, decimal write.
AFFINT Algebraic number field element from integer.
AFFRN Algebraic number field element from rational number.
AFICR Algebraic number field element inverse convert representation.
AFINV Algebraic number field element inverse.
AFNEG Algebraic number field negative.
AFPAFP Algebraic number field polynomial algebraic number field element product.
AFPAFP Algebraic number field polynomial algebraic number field element product.

*With the help of one `csh` script, three `awk` scripts, and one `sed` script.

AFPAFQ Algebraic number field polynomial algebraic number field element quotient.
AFPAFQ Algebraic number field polynomial algebraic number field element quotient.
AFPBRI Algebraic number field polynomial basis real root isolation.
AFPCMV Algebraic number field polynomial composition in main variable.
AFPCR Algebraic number field polynomial convert representation.
AFPDIF Algebraic number field polynomial difference.
AFPDMV Algebraic number field polynomial derivative, main variable.
AFPEMV Algebraic number field polynomial evaluation of main variable.
AFPEV Algebraic number field polynomial evaluation.
AFPFIP Algebraic number field polynomial from integral polynomial.
AFPFRP Algebraic number field polynomial from rational polynomial.
AFPICR Algebraic number field polynomial inverse convert representation.
AFPINT Algebraic number field polynomial integration.
AFPME Algebraic number field polynomial multiple evaluation.
AFPMON Algebraic number field polynomial monic.
AFPNEG Algebraic number field polynomial negative.
AFPNIP Algebraic number field polynomial normalize to integral polynomial.
AFPNORM Algebraic number field polynomial norm.
AFPPR Algebraic number field polynomial product.
AFPQR Algebraic number field polynomial quotient and remainder.
AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.
AFPRII Algebraic number field polynomial real root isolation induction.
AFPRLS Algebraic number field polynomial real root list separation.
AFPROD Algebraic number field element product.
AFPRRI Algebraic number field polynomial relative real root isolation.
AFPRRS Algebraic number field polynomial real root separation.
AFPSUM Algebraic number field polynomial sum.
AFPWRITE Algebraic number field polynomial write.
AFQ Algebraic number field quotient.
AFSIGN Algebraic number field sign.
AFSUM Algebraic number field element sum.
AFUPBRI Algebraic number field univariate polynomial basis real root isolation.
AFUPFAC Algebraic number field univariate polynomial factorization.
AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.
AFUPGS Algebraic number field polynomial greatest squarefree divisior.
AFUPIIR Algebraic number field polynomial isolating interval refinement.
AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.
AFUPRB Algebraic number field univariate polynomial root bound.
AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.
AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.

AFUPRII Algebraic number field univariate polynomial real root isolation induction.
AFUPRL Algebraic number field univariate polynomial, root of a linear polynomial.
AFUPRLS Algebraic number field univariate polynomial real root list separation.
AFUPRRI Algebraic number field univariate polynomial relative real root isolation.
AFUPRRS Algebraic number field univariate polynomial real root separation.
AFUPSF Algebraic number field univariate polynomial squarefree factorization.
AFUPSFN Algebraic number field univariate polynomial squarefree norm.
AFUPSR Algebraic number field univariate polynomial, sign at a rational point.
AFUPVAR Algebraic number field univariate polynomial variations.
AFUPWRITE Algebraic number field univariate polynomial write.
AFWRITE Algebraic field element write.
AIFAN Algebraic integer from algebraic number.
AIFAN Algebraic integer from algebraic number.
AMPDMV Algebraic module polynomial derivative, main variable.
AMPSAFP Algebraic module polynomial similar to algebraic field polynomial.
AMPSAFP Algebraic module polynomial similar to algebraic field polynomial.
AMSIGN Algebraic module sign.
AMSIGNIR Algebraic module sign, interval refinement.
AMUPBES Algebraic module univariate polynomial, binary rational evaluation of sign.
AMUPBHT Algebraic module univariate polynomial binary homothetic transformation.
AMUPIIR Algebraic module polynomial isolating interval refinement.
AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AMUPMPR Algebraic module univariate polynomial minimal polynomial of a real root.
AMUPNT Algebraic module univariate polynomial negative transformation.
AMUPRBH Algebraic module univariate polynomial root bound and homothetic transformation.
AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.
AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.
AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.
AMUPRLS Algebraic module univariate polynomial real root list separation.
AMUPRRS Algebraic module univariate polynomial real root separation.
AMUPSR Algebraic module univariate polynomial, sign at a rational point.
AMUPTR Algebraic module univariate polynomial translation.
AMUPTR1 Algebraic module univariate polynomial translation by 1.
AMUPVARIR Algebraic module univariate polynomial variations, interval

refinement.

ANDWRITE Algebraic number decimal write.

ANFAF Algebraic number from algebraic number field element.

ANFAF Algebraic number from algebraic number field element.

ANIIPE Algebraic number isolating interval for a primitive element.

ANPROD Algebraic number product.

ANREPE Algebraic number represent element of a primitive extension.

ANSUM Algebraic number sum.

IPAFME Integral polynomial, algebraic number field multiple evaluation.

RPAFME Rational polynomial, algebraic number field multiple evaluation.

algorithm

AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.

AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.

IDEGCD Integer doubly extended greatest common divisor algorithm.

IEGCD Integer extended greatest common divisor algorithm.

IPCRA Integral polynomial chinese remainder algorithm.

IPRICL Integral polynomial real root isolation, Collins-Loos algorithm.

IPRODK Integer product, karatsuba algorithm.

LDSMKB Linear diophantine system solution, modified Kannan and Bachem algorithm.

MAIPDE Matrix of integral polynomials determinant, exact division algorithm.

MAIPDM Matrix of integral polynomials determinant, modular algorithm.

MDCRA Modular digit chinese remainder algorithm.

MDLCRA Modular digit list chinese remainder algorithm.

MIDCRA Modular integer digit chinese remainder algorithm.

MMPDMA Matrix of modular polynomials determinant, modular algorithm.

MUPFBL Modular univariate polynomial factorization-berlekamp algorithm.

allocation

GCAMALLOC Garbage collected array memory allocation.

and

DAND Digit and.

arguments

ARGSACLIB Process the command line arguments.

arithmetic

AADV Arithmetic advance.

array

GCA2PTR Convert garbage collected array handle to C pointer.

GCAFREE Garbage collected array memory deallocation.

GCAGET Garbage collected array get element.

GCAMALLOC Garbage collected array memory allocation.

GCASET Garbage collected array set element.

assignment

ASSPR Assignment problem.

associate

RPMAIP Rational polynomial monic associate of integral polynomial.

atom

AREAD Atom read.

AWRITE Atom write.

ISATOM Test for atom.

augmentation

IPSFBA Integral polynomial squarefree basis augmentation.

bachem

LDSMKB Linear diophantine system solution, modified Kannan and Bachem algorithm.

backspace

BKSP Backspace.

base

DLOG2 Digit logarithm, base 2.

IFCL2 Integer, floor and ceiling, logarithm, base 2.

ILOG2 Integer logarithm, base 2.

PFBRE Polynomial From Base Ring Element.

PLBCF Polynomial leading base coefficient.

PTBCF Polynomial trailing base coefficient.

RNFCL2 Rational number floor and ceiling of logarithm, base 2.

RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.

based

LDSSBR Linear diophantine system solution, based on Rosser ideas.

basis

AFPBRI Algebraic number field polynomial basis real root isolation.

AFUPBRI Algebraic number field univariate polynomial basis real root isolation.

IPCSFB Integral polynomial coarsest squarefree basis.

IPFSFB Integral polynomial finest squarefree basis.

IPSFBA Integral polynomial squarefree basis augmentation.

ISPSFB Integral squarefree polynomial squarefree basis.

MMDNSB Matrix of modular digits null-space basis.

begin

BEGINSACLIB Begin SACLIB.

berlekamp

MUPBQP Modular univariate polynomial berlekamp Q polynomials construction.

MUPFBL Modular univariate polynomial factorization-berlekamp algorithm.

beta

LBIBMS List of BETA-integers bubble-merge sort.

LBIBS List of BETA-integers bubble sort.

LBIM List of BETA-integers merge.

binary

AMUPBES Algebraic module univariate polynomial, binary rational evaluation of sign.

AMUPBHT Algebraic module univariate polynomial binary homothetic transformation.

IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.

IPBHT Integral polynomial binary homothetic transformation.

IPBHTLV Integral polynomial binary homothetic transformation, leading variable.

IPBHTMV Integral polynomial binary homothetic transformation, main variable.

IPBREI Integral polynomial binary rational evaluation, integral polynomial result.

IUPBEI Integral univariate polynomial binary rational evaluation, integer output.

IUPBES Integral univariate polynomial binary rational evaluation of sign.

IUPBHT Integral univariate polynomial binary homothetic transformation.

IUPBRE Integral univariate polynomial binary rational evaluation.

RNBCR Rational number binary common representation.

binomial

IBCIND Integer binomial coefficient induction.

IBCOEF Integer binomial coefficient.

IBCPS Integer binomial coefficient partial sum.

PBIN Polynomial binomial.

bisection

RIB Rational interval bisection.

bit

BITRAN Bit, random.

bound

AFUPRB Algebraic number field univariate polynomial root bound.

AMUPRBH Algebraic module univariate polynomial root bound and homothetic transformation.

IPFCB Integral polynomial factor coefficient bound.

IPGFCB Integral polynomial Gelfond factor coefficient bound.

IUPRB Integral univariate polynomial root bound.

bubble

LBIBMS List of BETA-integers bubble-merge sort.

LBIBS List of BETA-integers bubble sort.

c

GCA2PTR Convert garbage collected array handle to C pointer.

calculation

DPCC Digit partial cosequence calculation.

IPRCH Integral polynomial real root calculation, high precision.

IPRCHS Integral polynomial real root calculation, high-precision special.

IPRCN1 Integral polynomial real root calculation, 1 root.

IPRCNP Integral polynomial real root calculation, Newton method preparation.

cartesian

CPLEXN Cartesian product, lexicographically next.

ceiling

IFCL2 Integer, floor and ceiling, logarithm, base 2.

RNCEIL Rational number, ceiling of.

RNFCL2 Rational number floor and ceiling of logarithm, base 2.

cell

LASTCELL Last cell.

character

CLOUT Character list out.

CREAD Character read.

CREADB Character read.

CWRITE Character write.

IPEXPREADR Integral polynomial expression read, remove terminating character.

LKAHEAD Character lookahead.

characteristic

CSFPAR Characteristic set from partition.

CSINT Characteristic set intersection.

CSSUB Characteristic set subset.

CSUN Characteristic set union.

SFCS Set from characteristic set.

chinese

IPCRA Integral polynomial chinese remainder algorithm.

MDCRA Modular digit chinese remainder algorithm.

MDLCRA Modular digit list chinese remainder algorithm.

MIDCRA Modular integer digit chinese remainder algorithm.

choice

IPCEVP Integral polynomial, choice of evaluation points.

circle

IPVCHT Integral polynomial variations after circle to half-plane transformation.

IUPCHT Integral univariate polynomial circle to half-plane transformation.

clock

ACLOCK Clock minus garbage collection time.

CLOCK Clock.

coarsest

IPCSFB Integral polynomial coarsest squarefree basis.

coefficient

AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.

IBCIND Integer binomial coefficient induction.

IBCOEF Integer binomial coefficient.

IBCPS Integer binomial coefficient partial sum.

IPFCB Integral polynomial factor coefficient bound.

IPGFCB Integral polynomial Gelfond factor coefficient bound.

PCL Polynomial coefficient list.

PLBCF Polynomial leading base coefficient.

PLDCF Polynomial leading coefficient.

PTBCF Polynomial trailing base coefficient.

coefficients

IPPSC Integral polynomial principal subresultant coefficients.

MCPMV Matrix of coefficients of polynomials, with respect to main variable.

RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.

cofactor

IUPRC Integral univariate polynomial resultant and cofactor.
MUPRC Modular univariate polynomial resultant and cofactor.

cofactors
AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.
IGCDCF Integer greatest common divisor and cofactors.
IPGCDC Integral polynomial greatest common divisor and cofactors.
MPGCDC Modular polynomial greatest common divisor and cofactors.

collected
GCA2PTR Convert garbage collected array handle to C pointer.
GCAFREE Garbage collected array memory deallocation.
GCAGET Garbage collected array get element.
GCAMALLOC Garbage collected array memory allocation.
GCASET Garbage collected array set element.

collection
ACLOCK Clock minus garbage collection time.
GC Garbage collection entry-point.
GCSI Garbage collection, system independent.

collector
GCGLOBAL Declare a global variable to the Garbage Collector.

collins
AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.
AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.
IPRICL Integral polynomial real root isolation, Collins-Loos algorithm.

column
MICINS Matrix of integers column insertion.
MICS Matrix of integers column sort.
MINNCT Matrix of integers, non-negative column transformation.

combination
ILCOMB Integer linear combination.
VILCOM Vector of integers linear combination.

combine
IPFLC Integral polynomial factor list combine.

command
ARGSACLIB Process the command line arguments.

common
AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.
DEGCD Digit extended greatest common divisor.
DGCD Digit greatest common divisor.
IDEGCD Integer doubly extended greatest common divisor algorithm.
IEGCD Integer extended greatest common divisor algorithm.
IGCD Integer greatest common divisor.
IGCDCF Integer greatest common divisor and cofactors.
IHEGCD Integer half-extended greatest common divisor.
ILCM Integer least common multiple.
IPGCDC Integral polynomial greatest common divisor and cofactors.
MPGCDC Modular polynomial greatest common divisor and cofactors.

MUPEGC Modular univariate polynomial extended greatest common divisor.
MUPGCD Modular univariate polynomial greatest common divisor.
MUPHEG Modular univariate polynomial half-extended greatest common divisor.
RNBCR Rational number binary common representation.
RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.
RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.

comparison

AFCOMP Algebraic number field comparison.
DVCMP Degree vector comparison.
ICOMP Integer comparison.
RILC Rational interval length comparison.
RNCOMP Rational number comparison.
VCOMP Vector comparison.

complex

SFCCON Single-precision floating-point complex conjugation.
SFCDIF Single-precision floating-point complex difference.
SFCFR Single-precision floating-point complex from real.
SFCIP Single-precision floating-point complex, imaginary part.
SFCMSQ Single-precision floating-point complex modulus squared.
SFCNEG Single-precision floating-point complex negation.
SFCPR Single-precision floating-point complex product.
SFCQ Single-precision floating-point complex quotient.
SFCRP Single-precision floating-point complex, real part.
SFCSUM Single-precision floating-point complex sum.

composition

AFPCMV Algebraic number field polynomial composition in main variable.
COMP Composition.
COMP2 Composition 2.
COMP3 Composition 3.
COMP4 Composition 4.

concatenation

CCONC Constructive concatenation.
CONC Concatenation.
LCONC List concatenation.

conjugation

SFCCON Single-precision floating-point complex conjugation.

constant

IPCONST Integral polynomial constant.
PCONST Polynomial constant. PCPV Polynomial cyclic permutation of variables.

construction

MUPBQP Modular univariate polynomial berlekamp Q polynomials construction.

constructive

CCONC Constructive concatenation.
CINV Constructive inverse.

content

IPC Integral polynomial content.
IPCPP Integral polynomial content and primitive part.
IPIC Integral polynomial integer content.
IPICPP Integral polynomial integer content and primitive part.
IPICS Integral polynomial integer content subroutine.
IPSCPP Integral polynomial sign, content, and primitive part.
MPUC Modular polynomial univariate content.
MPUCPP Modular polynomial univariate content and primitive part.
MPUCS Modular polynomial univariate content subroutine.

contents

IPLCPP Integral polynomial list of contents and primitive parts.

conversion

IIC Isolating interval conversion.

convert

AFCR Algebraic number field element convert representation.
AFICR Algebraic number field element inverse convert representation.
AFPCR Algebraic number field polynomial convert representation.
AFPICR Algebraic number field polynomial inverse convert representation.
GCA2PTR Convert garbage collected array handle to C pointer.

cosequence

DPCC Digit partial cosequence calculation.

cyclic

PCONST Polynomial constant. PCPV Polynomial cyclic permutation of variables.
PERMCY Permutation, cyclic.
PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.

deallocation

GCAFREE Garbage collected array memory deallocation.

decimal

AFDWRITE Algebraic number field, decimal write.
ANDWRITE Algebraic number decimal write.
RNDWRITE Rational number decimal write.

declare

GCGLOBAL Declare a global variable to the Garbage Collector.

decomposition

PSDSV Polynomial special decomposition, specified variable.

default

main Default main routine.

degree

DIPDEG Distributive polynomial degree.
DVCMP Degree vector comparison.
IUPFDS Integral univariate polynomial factor degree set.
MUPDDF Modular univariate polynomial distinct degree factorization.
PDEG Polynomial degree.
PDEGSV Polynomial degree, specified variable.
PDEGV Polynomial degree vector.
PMDEG Polynomial modified degree.

denominator

RNDEN Rational number denominator.

dense

DMPPRD Dense modular polynomial product.

DMPSUM Dense modular polynomial sum.

DMUPNR Dense modular univariate polynomial natural remainder.

DPFP Dense polynomial from polynomial.

PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.

derivative

AFPDMV Algebraic number field polynomial derivative, main variable.

AMPDMV Algebraic module polynomial derivative, main variable.

IPDER Integral polynomial derivative.

IPDMV Integral polynomial derivative, main variable.

IPFSD Integral polynomial factorization, second derivative.

IPHDMV Integral polynomial higher derivative, main variable.

IPSFSD Integral squarefree factorization, second derivative.

MUPDER Modular univariate polynomial derivative.

RPDMV Rational polynomial derivative, main variable.

determinant

MAIPDE Matrix of integral polynomials determinant, exact division algorithm.

MAIPDM Matrix of integral polynomials determinant, modular algorithm.

MMDDET Matrix of modular digits determinant.

MMPDMA Matrix of modular polynomials determinant, modular algorithm.

difference

AFDIF Algebraic number field element difference.

AFPDIF Algebraic number field polynomial difference.

IDIF Integer difference.

IPDIF Integral polynomial difference.

MDDIF Modular digit difference.

MIDIF Modular integer difference.

MIPDIF Modular integral polynomial difference.

MPDIF Modular polynomial difference.

RNDIF Rational number difference.

RPDIF Rational polynomial difference.

SDIFF Set difference.

SFCDIF Single-precision floating-point complex difference.

SFRDIF Single-precision floating-point real difference.

USDIFF Unordered set difference.

VIDIF Vector of integers difference.

digit

DAND Digit and.

DEGCD Digit extended greatest common divisor.

DGCD Digit greatest common divisor.

DIGIT Digit.

DLOG2 Digit logarithm, base 2.

DNIMP Digit non-implication.

DNOT Digit not.

DOR Digit or.

DPCC Digit partial cosequence calculation.

DPGEN Digit prime generator.

DPR Digit product.
DQR Digit quotient and remainder.
DRAN Digit, random.
DRANN Digit, random non-negative.
DSQRTF Digit square root function.
GDPGEN Gaussian digit prime generator.
IDIPR2 Integer digit inner product, length 2.
IDPR Integer-digit product.
IDQ Integer-digit quotient.
IDQR Integer-digit quotient and remainder.
IDREM Integer-digit remainder.
MDCRA Modular digit chinese remainder algorithm.
MDDIF Modular digit difference.
MDEXP Modular digit exponentiation.
MDHOM Modular digit homomorphism.
MDINV Modular digit inverse.
MDLCRA Modular digit list chinese remainder algorithm.
MDNEG Modular digit negative.
MDPROD Modular digit product.
MDQ Modular digit quotient.
MDRAN Modular digit, random.
MDSUM Modular digit sum.
MIDCRA Modular integer digit chinese remainder algorithm.
MPMDP Modular polynomial modular digit product.
REM GAMMA-digit remainder.

digits

MMDDET Matrix of modular digits determinant.
MMDNSB Matrix of modular digits null-space basis.

diophantine

LDSMKB Linear diophantine system solution, modified Kannan and Bachem algorithm.
LDSSBR Linear diophantine system solution, based on Rosser ideas.

discriminant

IPDSCR Integral polynomial discriminant.

disjoint

AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.
IPIIWS Integral polynomial isolating intervals weakly disjoint to strongly disjoint.
IPIIWS Integral polynomial isolating intervals weakly disjoint to strongly disjoint.
IPRIMW Integral polynomial real root isolation, modified Uspensky method,

weakly disjoint intervals.

display

DIELOC Display Input Error Location.

distinct

MUPDDF Modular univariate polynomial distinct degree factorization.

SDR System of distinct representatives.

distributive

DIIPREAD Distributive integral polynomial read.

DIIPWRITE Distributive integral polynomial write.

DIPDEG Distributive polynomial degree.

DIPFP Distributive polynomial from polynomial.

DIPINS Distributive polynomial, insert term.

DIRPREAD Distributive rational polynomial read.

DIRPWRITE Distributive rational polynomial write.

IPDWRITE Integral Polynomial Distributive Write.

PFDIP Polynomial from distributive polynomial.

RPDWRITE Rational Polynomial Distributive Write.

divided

PDBORD Polynomial divided by order.

division

IDP2 Integer division by power of 2.

MAIPDE Matrix of integral polynomials determinant, exact division algorithm.

PDPV Polynomial division by power of variable.

divisior

AFUPGS Algebraic number field polynomial greatest squarefree divisior.

divisor

AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.

DEGCD Digit extended greatest common divisor.

DGCD Digit greatest common divisor.

IDEGCD Integer doubly extended greatest common divisor algorithm.

IEGCD Integer extended greatest common divisor algorithm.

IGCD Integer greatest common divisor.

IGCDCF Integer greatest common divisor and cofactors.

IHEGCD Integer half-extended greatest common divisor.

ILPDS Integer large prime divisor search.

IMPDS Integer medium prime divisor search.

IPGCDC Integral polynomial greatest common divisor and cofactors.

IPPGSD Integral polynomial primitive greatest squarefree divisor.

MPGCDC Modular polynomial greatest common divisor and cofactors.

MUPEGC Modular univariate polynomial extended greatest common divisor.

MUPGCD Modular univariate polynomial greatest common divisor.

MUPHEG Modular univariate polynomial half-extended greatest common divisor.

RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.

divisors

ISPD Integer small prime divisors.

double

ANPEDE [Algebraic number primitive element for a double extension.

doubly

IDEGCD Integer doubly extended greatest common divisor algorithm.

element

AFCR Algebraic number field element convert representation.
AFDIF Algebraic number field element difference.
AFFINT Algebraic number field element from integer.
AFFRN Algebraic number field element from rational number.
AFICR Algebraic number field element inverse convert representation.
AFINV Algebraic number field element inverse.
AFPAFP Algebraic number field polynomial algebraic number field element product.
AFPAFQ Algebraic number field polynomial algebraic number field element quotient.
AFPROD Algebraic number field element product.
AFSUM Algebraic number field element sum.
AFWRITE Algebraic field element write.
ANFAF Algebraic number from algebraic number field element.
ANIIPE Algebraic number isolating interval for a primitive element.
ANPEDE [Algebraic number primitive element for a double extension.
ANREPE Algebraic number represent element of a primitive extension.
GCAGET Garbage collected array get element.
GCASET Garbage collected array set element.
LEINST List element insertion.
LELTI List element.
LEROT List element rotation.
LIST1 List, 1 element.
PFBRE Polynomial From Base Ring Element.
SFIRST Set first element.
SLELTI Set list element.
VIERED Vector of integers, element reduction.

elements

LIST10 List, 10 elements.
LIST2 List, 2 elements.
LIST3 List, 3 elements.
LIST4 List, 4 elements.
LIST5 List, 5 elements.

empty

ISLIST Test for non-empty list.
ISNIL Test for empty list.

end

ENDSACLIB End saclib.

entry

GC Garbage collection entry-point.

equal

EQUAL Equal.

equality

SEQUAL Set equality.

equation

MIPISE Modular integral polynomial mod ideal, solution of equation.

MIUPSE Modular integral univariate polynomial, solution of equation.

error

DIELOC Display Input Error Location.

evaluation

AFPEMV Algebraic number field polynomial evaluation of main variable.

AFPEV Algebraic number field polynomial evaluation.

AFPME Algebraic number field polynomial multiple evaluation.

AMUPBES Algebraic module univariate polynomial, binary rational evaluation of sign.

IPAFME Integral polynomial, algebraic number field multiple evaluation.

IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.

IPBREI Integral polynomial binary rational evaluation, integral polynomial result.

IPCEVP Integral polynomial, choice of evaluation points.

IPEMV Integral polynomial evaluation of main variable.

IPEVAL Integral polynomial evaluation.

IUPBEI Integral univariate polynomial binary rational evaluation, integer output.

IUPBES Integral univariate polynomial binary rational evaluation of sign.

IUPBRE Integral univariate polynomial binary rational evaluation.

MMPEV Matrix of modular polynomials evaluation.

MPEMV Modular polynomial evaluation of main variable.

MPEVAL Modular polynomial evaluation.

RPAFME Rational polynomial, algebraic number field multiple evaluation.

RPEMV Rational polynomial evaluation, main variable.

even

EVEN EVEN.

IEVEN Integer even.

exact

MAIPDE Matrix of integral polynomials determinant, exact division algorithm.

exponential

EXPF Exponential function.

exponentiation

IEXP Integer exponentiation.

IPEXP Integral polynomial exponentiation.

MDEXP Modular digit exponentiation.

MIEXP Modular integer exponentiation.

MPEXP Modular polynomial exponentiation.

expression

IPEXPREAD Integral polynomial expression read.

IPEXPREADR Integral polynomial expression read, remove terminating character.

RPEXPREAD Rational polynomial expression read.

extended

DEGCD Digit extended greatest common divisor.

IDEGCD Integer doubly extended greatest common divisor algorithm.

IEGCD Integer extended greatest common divisor algorithm.

IHEGCD Integer half-extended greatest common divisor.

MUPEGC Modular univariate polynomial extended greatest common divisor.
MUPHEG Modular univariate polynomial half-extended greatest common divisor.

extension

ANPEDE [Algebraic number primitive element for a double extension.
ANREPE Algebraic number represent element of a primitive extension.

extent

EXTENT Extent.

factor

IPFACTREAD Integral polynomial factor read.
IPFCB Integral polynomial factor coefficient bound.
IPFLC Integral polynomial factor list combine.
IPGFCB Integral polynomial Gelfond factor coefficient bound.
IUPFDS Integral univariate polynomial factor degree set.
RPFACTREAD Rational polynomial factor read.

factorial

IFACTL Integer factorial.

factorization

AFUPFAC Algebraic number field univariate polynomial factorization.
AFUPSF Algebraic number field univariate polynomial squarefree factorization.
IFACT Integer factorization.
IPFAC Integral polynomial factorization.
IPFSD Integral polynomial factorization, second derivative.
IPSF Integral polynomial squarefree factorization.
IPSFSD Integral squarefree factorization, second derivative.
ISFPF Integral squarefree polynomial factorization.
IUPFAC Integral univariate polynomial factorization.
IUSFPF Integral univariate squarefree polynomial factorization.
MUPDDF Modular univariate polynomial distinct degree factorization.
MUPFBL Modular univariate polynomial factorization-berlekamp algorithm.
MUPFS Modular univariate polynomial factorization, special.
MUPSFF Modular univariate polynomial squarefree factorization.

failure

FAIL Failure handler.

fermat

FRESL Fermat residue list.
FRLSM Fermat residue list, single modulus.

field

AFCOMP Algebraic number field comparison.
AFCR Algebraic number field element convert representation.
AFDIF Algebraic number field element difference.
AFDWRITE Algebraic number field, decimal write.
AFFINT Algebraic number field element from integer.
AFFRN Algebraic number field element from rational number.
AFICR Algebraic number field element inverse convert representation.
AFINV Algebraic number field element inverse.
AFNEG Algebraic number field negative.
AFPAFP Algebraic number field polynomial algebraic number field element product.

AFPAFP Algebraic number field polynomial algebraic number field element product.
AFPAFQ Algebraic number field polynomial algebraic number field element quotient.
AFPAFQ Algebraic number field polynomial algebraic number field element quotient.
AFPBRI Algebraic number field polynomial basis real root isolation.
AFPCMV Algebraic number field polynomial composition in main variable.
AFPCR Algebraic number field polynomial convert representation.
AFPDIF Algebraic number field polynomial difference.
AFPDMV Algebraic number field polynomial derivative, main variable.
AFPEMV Algebraic number field polynomial evaluation of main variable.
AFPEV Algebraic number field polynomial evaluation.
AFPFIP Algebraic number field polynomial from integral polynomial.
AFPFRP Algebraic number field polynomial from rational polynomial.
AFPICR Algebraic number field polynomial inverse convert representation.
AFPINT Algebraic number field polynomial integration.
AFPME Algebraic number field polynomial multiple evaluation.
AFPMON Algebraic number field polynomial monic.
AFPNEG Algebraic number field polynomial negative.
AFPNIP Algebraic number field polynomial normalize to integral polynomial.
AFPNORM Algebraic number field polynomial norm.
AFPPR Algebraic number field polynomial product.
AFPQR Algebraic number field polynomial quotient and remainder.
AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.
AFPRII Algebraic number field polynomial real root isolation induction.
AFPRLS Algebraic number field polynomial real root list separation.
AFPROD Algebraic number field element product.
AFPRRI Algebraic number field polynomial relative real root isolation.
AFPRRS Algebraic number field polynomial real root separation.
AFPSUM Algebraic number field polynomial sum.
AFPWRITE Algebraic number field polynomial write.
AFQ Algebraic number field quotient.
AFSIGN Algebraic number field sign.
AFSUM Algebraic number field element sum.
AFUPBRI Algebraic number field univariate polynomial basis real root isolation.
AFUPFAC Algebraic number field univariate polynomial factorization.
AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.
AFUPGS Algebraic number field polynomial greatest squarefree divisior.
AFUPIIR Algebraic number field polynomial isolating interval refinement.
AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.
AFUPRB Algebraic number field univariate polynomial root bound.
AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.

AFUPRII Algebraic number field univariate polynomial real root isolation induction.

AFUPRL Algebraic number field univariate polynomial, root of a linear polynomial.

AFUPRLS Algebraic number field univariate polynomial real root list separation.

AFUPRRI Algebraic number field univariate polynomial relative real root isolation.

AFUPRRS Algebraic number field univariate polynomial real root separation.

AFUPSF Algebraic number field univariate polynomial squarefree factorization.

AFUPSFN Algebraic number field univariate polynomial squarefree norm.

AFUPSR Algebraic number field univariate polynomial, sign at a rational point.

AFUPVAR Algebraic number field univariate polynomial variations.

AFUPWRITE Algebraic number field univariate polynomial write.

AFWRITE Algebraic field element write.

AMPSAFP Algebraic module polynomial similar to algebraic field polynomial.

ANFAF Algebraic number from algebraic number field element.

IPAFME Integral polynomial, algebraic number field multiple evaluation.

RPAFME Rational polynomial, algebraic number field multiple evaluation.

finest

IPFSFB Integral polynomial finest squarefree basis.

first

FIRST First.

FIRST2 First 2.

FIRST3 First 3.

FIRST4 First 4.

SFIRST Set first element.

floating

SFCCON Single-precision floating-point complex conjugation.

SFCDIF Single-precision floating-point complex difference.

SFCFR Single-precision floating-point complex from real.

SFCIP Single-precision floating-point complex, imaginary part.

SFCMSQ Single-precision floating-point complex modulus squared.

SFCNEG Single-precision floating-point complex negation.

SFCPR Single-precision floating-point complex product.

SFCQ Single-precision floating-point complex quotient.

SFCRP Single-precision floating-point complex, real part.

SFCSUM Single-precision floating-point complex sum.

SFIFI Single-precision floating-point interval from integer.

SFRABS Single-precision floating-point real absolute value.

SFRDIF Single-precision floating-point real difference.

SFRLS Single-precision floating-point real number lower sum.

SFRNEG Single-precision floating-point real negation.

SFRPR Single-precision floating-point real product.

SFRQ Single-precision floating-point real quotient.

SFRSUM Single-precision floating-point real sum.

floor

IFCL2 Integer, floor and ceiling, logarithm, base 2.
RNFCL2 Rational number floor and ceiling of logarithm, base 2.
RNFLOR Rational number, floor of.

flush

FILINE Flush the input stream line.

fourth

FOURTH Fourth.

from

AFFINT Algebraic number field element from integer.
AFFRN Algebraic number field element from rational number.
AFPFIP Algebraic number field polynomial from integral polynomial.
AFPFRP Algebraic number field polynomial from rational polynomial.
AIFAN Algebraic integer from algebraic number.
ANFAF Algebraic number from algebraic number field element.
CSFPAR Characteristic set from partition.
DIPFP Distributive polynomial from polynomial.
DPFP Dense polynomial from polynomial.
IPFRP Integral polynomial from rational polynomial.
IPSIFI Integral polynomial standard isolating interval from isolating interval.
LFS List from String.
MIPFSM Modular integral polynomial from symmetric modular.
PFBRE Polynomial From Base Ring Element.
PFDIP Polynomial from distributive polynomial.
PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.
PUFP Polynomial, univariate, from polynomial.
RNINT Rational number from integer.
RPFIP Rational polynomial from integral polynomial.
SFCFR Single-precision floating-point complex from real.
SFCS Set from characteristic set.
SFIFI Single-precision floating-point interval from integer.
SMFMI Symmetric modular from modular integer.
SMFMIP Symmetric modular from modular integral polynomial.

function

DSQRTF Digit square root function.
EXPF Exponential function.
IABSF Integer absolute value function.
ISIGNF Integer sign function.

gamma

GREAD Gamma-integer read.
GWRITE Gamma-integer write.
REM GAMMA-digit remainder.

garbage

ACLOCK Clock minus garbage collection time.
GC Garbage collection entry-point.
GCA2PTR Convert garbage collected array handle to C pointer.
GCAFREE Garbage collected array memory deallocation.
GCAGET Garbage collected array get element.
GCAMALLOC Garbage collected array memory allocation.
GCASET Garbage collected array set element.

GCGLOBAL Declare a global variable to the Garbage Collector.
GCSI Garbage collection, system independent.

gaussian
GDPGEN Gaussian digit prime generator.

gca
ISGCA Test for GCA handle.

gelfond
IPGFCB Integral polynomial Gelfond factor coefficient bound.

general
IPGSUB Integral polynomial general substitution.

generator
DPGEN Digit prime generator.
GDPGEN Gaussian digit prime generator.

get
GCAGET Garbage collected array get element.

global
GCGLOBAL Declare a global variable to the Garbage Collector.

greatest
AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.
AFUPGS Algebraic number field polynomial greatest squarefree divisior.
DEGCD Digit extended greatest common divisor.
DGCD Digit greatest common divisor.
IDEGCD Integer doubly extended greatest common divisor algorithm.
IEGCD Integer extended greatest common divisor algorithm.
IGCD Integer greatest common divisor.
IGCDCF Integer greatest common divisor and cofactors.
IHEGCD Integer half-extended greatest common divisor.
IPGCDC Integral polynomial greatest common divisor and cofactors.
IPPGSD Integral polynomial primitive greatest squarefree divisor.
MPGCDC Modular polynomial greatest common divisor and cofactors.
MUPEGC Modular univariate polynomial extended greatest common divisor.
MUPGCD Modular univariate polynomial greatest common divisor.
MUPHEG Modular univariate polynomial half-extended greatest common divisor.
RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.

half
IHEGCD Integer half-extended greatest common divisor.
IPVCHT Integral polynomial variations after circle to half-plane transformation.
IUPCHT Integral univariate polynomial circle to half-plane transformation.
MUPHEG Modular univariate polynomial half-extended greatest common divisor.

handle
GCA2PTR Convert garbage collected array handle to C pointer.
ISGCA Test for GCA handle.

handler
FAIL Failure handler.

hensel

IPIQH Integral polynomial mod ideal quadratic hensel lemma.
IUPQH Integral univariate polynomial quadratic hensel lemma.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
MPIQH Modular polynomial mod ideal, quadratic Hensel lemma.
MPIQHL Modular polynomial mod ideal quadratic hensel lemma, list.
MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.

high

IPRCH Integral polynomial real root calculation, high precision.
IPRCHS Integral polynomial real root calculation, high-precision special.

higher

IPHDMV Integral polynomial higher derivative, main variable.

homomorphism

IPIHOM Integral polynomial mod ideal homomorphism.
MAIPHM Matrix of integral polynomials homomorphism.
MDHOM Modular digit homomorphism.
MIHOM Modular integer homomorphism.
MIPHOM Modular integral polynomial homomorphism.
MPHOM Modular polynomial homomorphism.

homothetic

AMUPBHT Algebraic module univariate polynomial binary homothetic transformation.
AMUPRBH Algebraic module univariate polynomial root bound and homothetic transformation.
IPBHT Integral polynomial binary homothetic transformation.
IPBHTLV Integral polynomial binary homothetic transformation, leading variable.
IPBHTMV Integral polynomial binary homothetic transformation, main variable.
IUPBHT Integral univariate polynomial binary homothetic transformation.
IUPIHT Integral univariate polynomial integer homothetic transformation.

ideal

IPIHOM Integral polynomial mod ideal homomorphism.
IPIPR Integral polynomial mod ideal product.
IPIQH Integral polynomial mod ideal quadratic hensel lemma.
MIPIPR Modular integral polynomial mod ideal product.
MIPISE Modular integral polynomial mod ideal, solution of equation.
MMPIQR Modular monic polynomial mod ideal quotient and remainder.
MPIQH Modular polynomial mod ideal, quadratic Hensel lemma.
MPIQHL Modular polynomial mod ideal quadratic hensel lemma, list.
MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.

ideas

LDSSBR Linear diophantine system solution, based on Rosser ideas.

identity

MIAIM Matrix of integers, adjoin identity matrix.

imaginary

SFCIP Single-precision floating-point complex, imaginary part.

implication

DNIMP Digit non-implication.

in

AFPCMV Algebraic number field polynomial composition in main variable.

independent

GCSI Garbage collection, system independent.

induction

AFPRII Algebraic number field polynomial real root isolation induction.

AFUPRII Algebraic number field univariate polynomial real root isolation induction.

IBCIND Integer binomial coefficient induction.

IPRRII Integral polynomial real root isolation induction.

information

INFOSACLIB Write out usage information for SACLIB.

inner

IDIPR2 Integer digit inner product, length 2.

VMPIP Vector of modular polynomial inner product.

input

DIELOC Display Input Error Location.

FILINE Flush the input stream line.

insert

DIPINS Distributive polynomial, insert term.

insertion

LEINST List element insertion.

LINS List insertion.

LINSRT List insertion.

MICINS Matrix of integers column insertion.

integer

AFFINT Algebraic number field element from integer.

AIFAN Algebraic integer from algebraic number.

GREAD Gamma-integer read.

GWRITE Gamma-integer write.

IABSF Integer absolute value function.

IBCIND Integer binomial coefficient induction.

IBCOEF Integer binomial coefficient.

IBCPS Integer binomial coefficient partial sum.

ICOMP Integer comparison.

IDEGCD Integer doubly extended greatest common divisor algorithm.

IDIF Integer difference.

IDIPR2 Integer digit inner product, length 2.

IDP2 Integer division by power of 2.

IDPR Integer-digit product.

IDQ Integer-digit quotient.

IDQR Integer-digit quotient and remainder.

IDREM Integer-digit remainder.

IEGCD Integer extended greatest common divisor algorithm.

IEVEN Integer even.

IEXP Integer exponentiation.

IFACT Integer factorization.

IFACTL Integer factorial.

IFCL2 Integer, floor and ceiling, logarithm, base 2.

IGCD Integer greatest common divisor.
IGCDCF Integer greatest common divisor and cofactors.
IHEGCD Integer half-extended greatest common divisor.
ILCM Integer least common multiple.
ILCOMB Integer linear combination.
ILOG2 Integer logarithm, base 2.
ILPDS Integer large prime divisor search.
ILWRITE Integer list write.
IMAX Integer maximum.
IMIN Integer minimum.
IMP2 Integer multiplication by power of 2.
IMPDS Integer medium prime divisor search.
INEG Integer negation.
IODD Integer odd.
IORD2 Integer, order of 2.
IPIC Integral polynomial integer content.
IPICPP Integral polynomial integer content and primitive part.
IPICS Integral polynomial integer content subroutine.
IPIP Integral polynomial integer product.
IPIPP Integral polynomial integer primitive part.
IPIQ Integral polynomial integer quotient.
IPOWER Integer power.
IPROD Integer product.
IPRODK Integer product, karatsuba algorithm.
IQ Integer quotient.
IQR Integer quotient and remainder.
IRAND Integer, random.
IREAD Integer read.
IREM Integer remainder.
IROOT Integer root.
ISEG Integer segmentation.
ISIGNF Integer sign function.
ISPD Integer small prime divisors.
ISPT Integer selfridge primality test.
ISQRT Integer square root.
ISSUM Integer shifted sum.
ISUM Integer sum.
ITRUNC Integer truncation.
IUPBEI Integral univariate polynomial binary rational evaluation, integer output.
IUPIHT Integral univariate polynomial integer homothetic transformation.
IWRITE Integer write.
MIDCRA Modular integer digit chinese remainder algorithm.
MIDIF Modular integer difference.
MIEXP Modular integer exponentiation.
MIHOM Modular integer homomorphism.
MIINV Modular integer inverse.
MINEG Modular integer negation.
MIPROD Modular integer product.
MIQ Modular integer quotient.

MIRAN Modular integer, random.
MISUM Modular integer sum.
RNINT Rational number from integer.
SFIFI Single-precision floating-point interval from integer.
SMFMI Symmetric modular from modular integer.

integers

LBIBMS List of BETA-integers bubble-merge sort.
LBIBS List of BETA-integers bubble sort.
LBIM List of BETA-integers merge.
MIAIM Matrix of integers, adjoin identity matrix.
MICINS Matrix of integers column insertion.
MICS Matrix of integers column sort.
MINNCT Matrix of integers, non-negative column transformation.
VIAZ Vector of integers, adjoin zeros.
VIDIF Vector of integers difference.
VIERED Vector of integers, element reduction.
VILCOM Vector of integers linear combination.
VINEG Vector of integers negation.
VISPR Vector of integers scalar product.
VISUM Vector of integers sum.
VIUT Vector of integers, unimodular transformation.

integral

AFPFIP Algebraic number field polynomial from integral polynomial.
AFPNIP Algebraic number field polynomial normalize to integral polynomial.
DIIPREAD Distributive integral polynomial read.
DIIPWRITE Distributive integral polynomial write.
IPABS Integral polynomial absolute value.
IPAFME Integral polynomial, algebraic number field multiple evaluation.
IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.
IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.
IPBHT Integral polynomial binary homothetic transformation.
IPBHTLV Integral polynomial binary homothetic transformation, leading variable.
IPBHTMV Integral polynomial binary homothetic transformation, main variable.
IPBREI Integral polynomial binary rational evaluation, integral polynomial result.
IPBREI Integral polynomial binary rational evaluation, integral polynomial result.
IPC Integral polynomial content.
IPCEVP Integral polynomial, choice of evaluation points.
IPCONST Integral polynomial constant.
IPCPP Integral polynomial content and primitive part.
IPCRA Integral polynomial chinese remainder algorithm.
IPCSFB Integral polynomial coarsest squarefree basis.
IPDER Integral polynomial derivative.
IPDIF Integral polynomial difference.
IPDMV Integral polynomial derivative, main variable.

IPDSCR Integral polynomial discriminant.
IPDWRITE Integral Polynomial Distributive Write.
IPEMV Integral polynomial evaluation of main variable.
IPEVAL Integral polynomial evaluation.
IPEXP Integral polynomial exponentiation.
IPEXPREAD Integral polynomial expression read.
IPEXPREADR Integral polynomial expression read, remove terminating character.
IPFAC Integral polynomial factorization.
IPFACTREAD Integral polynomial factor read.
IPFCB Integral polynomial factor coefficient bound.
IPFLC Integral polynomial factor list combine.
IPFRP Integral polynomial from rational polynomial.
IPFSD Integral polynomial factorization, second derivative.
IPFSFB Integral polynomial finest squarefree basis.
IPGCDC Integral polynomial greatest common divisor and cofactors.
IPGFCB Integral polynomial Gelfond factor coefficient bound.
IPGSUB Integral polynomial general substitution.
IPHDMV Integral polynomial higher derivative, main variable.
IPIC Integral polynomial integer content.
IPICPP Integral polynomial integer content and primitive part.
IPICS Integral polynomial integer content subroutine.
IPIHOM Integral polynomial mod ideal homomorphism.
IPIIWS Integral polynomial isolating intervals weakly disjoint to strongly disjoint.
IPINT Integral polynomial integration.
IPIP Integral polynomial integer product.
IPIPP Integral polynomial integer primitive part.
IPIPR Integral polynomial mod ideal product.
IPIQ Integral polynomial integer quotient.
IPIQH Integral polynomial mod ideal quadratic hensel lemma.
IPLCPP Integral polynomial list of contents and primitive parts.
IPLRRI Integral polynomial list real root isolation.
IPMAXN Integral polynomial maximum norm.
IPNEG Integral polynomial negative.
IPNT Integral polynomial negative transformation.
IPONE Integral polynomial one.
IPP2P Integral polynomial power of 2 product.
IPPGSD Integral polynomial primitive greatest squarefree divisor.
IPPOWREAD Integral polynomial power read.
IPPP Integral polynomial primitive part.
IPPROD Integral polynomial product.
IPPSC Integral polynomial principal subresultant coefficients.
IPPSR Integral polynomial pseudo-remainder.
IPQ Integral polynomial quotient.
IPQR Integral polynomial quotient and remainder.
IPRAN Integral polynomial, random.
IPRCH Integral polynomial real root calculation, high precision.
IPRCHS Integral polynomial real root calculation, high-precision special.
IPRCN1 Integral polynomial real root calculation, 1 root.

IPRCNP Integral polynomial real root calculation, Newton method preparation.
IPREAD Integral polynomial read.
IPRES Integral polynomial resultant.
IPRICL Integral polynomial real root isolation, Collins-Loos algorithm.
IPRIM Integral polynomial real root isolation, modified Uspensky method.
IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.
IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.
IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.
IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.
IPRPRS Integral polynomial reduced polynomial remainder sequence.
IPRRII Integral polynomial real root isolation induction.
IPRRLS Integral polynomial real root list separation.
IPRRRI Integral polynomial relative real root isolation.
IPRRS Integral polynomial real root separation.
IPSCPP Integral polynomial sign, content, and primitive part.
IPSF Integral polynomial squarefree factorization.
IPSFBA Integral polynomial squarefree basis augmentation.
IPSFSD Integral squarefree factorization, second derivative.
IPSIFI Integral polynomial standard isolating interval from isolating interval.
IPSIGN Integral polynomial sign.
IPSMV Integral polynomial substitution for main variable.
IPSPRS Integral polynomial subresultant polynomial remainder sequence.
IPSRM Integral polynomial strong real root isolation, modified Uspensky method.
IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.
IPSRP Integral polynomial similiar to rational polynomial.
IPSUB Integral polynomial substitution.
IPSUM Integral polynomial sum.
IPSUMN Integral polynomial sum norm.
IPTERMREAD Integral polynomial term read.
IPTPR Integral polynomial truncated product.
IPTR Integral polynomial translation, specified variable.
IPTR1 Integral polynomial translation by one, specified variable.
IPTR1LV Integral polynomial translation by one, leading variable.
IPTRAN Integral polynomial translation.
IPTRLV Integral polynomial translation, leading variable.
IPTRMV Integral polynomial translation, main variable.
IPTRUN Integral polynomial truncation.
IPVCHT Integral polynomial variations after circle to half-plane transformation.
IPWRITE Integral polynomial write.
ISFPF Integral squarefree polynomial factorization.
ISFPIR Integral squarefree polynomial isolating interval refinement.
ISPSFB Integral squarefree polynomial squarefree basis.
IUPBEI Integral univariate polynomial binary rational evaluation, integer out-

put.

IUPBES Integral univariate polynomial binary rational evaluation of sign.

IUPBHT Integral univariate polynomial binary homothetic transformation.

IUPBRE Integral univariate polynomial binary rational evaluation.

IUPCHT Integral univariate polynomial circle to half-plane transformation.

IUPFAC Integral univariate polynomial factorization.

IUPFDS Integral univariate polynomial factor degree set.

IUPIHT Integral univariate polynomial integer homothetic transformation.

IUPIIR Integral univariate polynomial isolating interval refinement.

IUPNT Integral univariate polynomial negative transformation.

IUPQH Integral univariate polynomial quadratic hensel lemma.

IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.

IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.

IUPRB Integral univariate polynomial root bound.

IUPRC Integral univariate polynomial resultant and cofactor.

IUPRLP Integral univariate polynomial, root of a linear polynomial.

IUPSR Integral univariate polynomial semi-remainder.

IUPTPR Integral univariate polynomial truncated product.

IUPTR Integral univariate polynomial translation.

IUPTR1 Integral univariate polynomial translation by 1.

IUPVAR Integral univariate polynomial variations.

IUPVOI Integral univariate polynomial, variations for open interval.

IUPVSI Integral univariate polynomial, variations for standard interval.

IUPWRITE Integral univariate polynomial write.

IUSFPF Integral univariate squarefree polynomial factorization.

MAIPDE Matrix of integral polynomials determinant, exact division algorithm.

MAIPDM Matrix of integral polynomials determinant, modular algorithm.

MAIPHM Matrix of integral polynomials homomorphism.

MAIPP Matrix of integral polynomials product.

MIPDIF Modular integral polynomial difference.

MIPFSM Modular integral polynomial from symmetric modular.

MIPHOM Modular integral polynomial homomorphism.

MIPIPR Modular integral polynomial mod ideal product.

MIPISE Modular integral polynomial mod ideal, solution of equation.

MIPNEG Modular integral polynomial negation.

MIPPR Modular integral polynomial product.

MIPRAN Modular integral polynomial, random.

MIPSUM Modular integral polynomial sum.

MIUPQR Modular integral univariate polynomial quotient and remainder.

MIUPSE Modular integral univariate polynomial, solution of equation.

RPFIP Rational polynomial from integral polynomial.

RPMAIP Rational polynomial monic associate of integral polynomial.

SMFMIP Symmetric modular from modular integral polynomial.

integration

AFPINT Algebraic number field polynomial integration.

IPINT Integral polynomial integration.

RPIMV Rational polynomial integration, main variable.

interpolation

MPINT Modular polynomial interpolation.

intersection

CSINT Characteristic set intersection.

SINTER Set intersection.

USINT Unordered set intersection.

interval

AFUPIIR Algebraic number field polynomial isolating interval refinement.

AMSIGNIR Algebraic module sign, interval refinement.

AMUPIIR Algebraic module polynomial isolating interval refinement.

AMUPVARIR Algebraic module univariate polynomial variations, interval refinement.

ANIIPE Algebraic number isolating interval for a primitive element.

IIC Isolating interval conversion.

IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.

IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.

IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.

IPSIFI Integral polynomial standard isolating interval from isolating interval.

IPSIFI Integral polynomial standard isolating interval from isolating interval.

IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

ISFPIR Integral squarefree polynomial isolating interval refinement.

IUPIIR Integral univariate polynomial isolating interval refinement.

IUPVOI Integral univariate polynomial, variations for open interval.

IUPVSI Integral univariate polynomial, variations for standard interval.

RIB Rational interval bisection.

RIL Rational interval length.

RILC Rational interval length comparison.

RINEG Rational interval negation.

RINT Rational interval normalizing transformation.

RIPROD Rational interval product.

RIRNP Rational interval rational number product.

RISIGN Rational interval sign.

RISUM Rational interval sum.

SFIFI Single-precision floating-point interval from integer.

intervals

AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

IPIIWS Integral polynomial isolating intervals weakly disjoint to strongly disjoint.

IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.

introduction

PINV Polynomial introduction of new variables.

inverse

AFICR Algebraic number field element inverse convert representation.

AFINV Algebraic number field element inverse.

AFPICR Algebraic number field polynomial inverse convert representation.

CINV Constructive inverse.

INV Inverse.

MDINV Modular digit inverse.

MIINV Modular integer inverse.

PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.

RNINV Rational number inverse.

isolating

AFUPIIR Algebraic number field polynomial isolating interval refinement.

AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AMUPIIR Algebraic module polynomial isolating interval refinement.

AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

ANIIPE Algebraic number isolating interval for a primitive element.

IIC Isolating interval conversion.

IPIIWS Integral polynomial isolating intervals weakly disjoint to strongly disjoint.

IPSIFI Integral polynomial standard isolating interval from isolating interval.

IPSIFI Integral polynomial standard isolating interval from isolating interval.

ISFPIR Integral squarefree polynomial isolating interval refinement.

IUPIIR Integral univariate polynomial isolating interval refinement.

isolation

AFPBRI Algebraic number field polynomial basis real root isolation.

AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.

AFPRII Algebraic number field polynomial real root isolation induction.

AFPRRI Algebraic number field polynomial relative real root isolation.

AFUPBRI Algebraic number field univariate polynomial basis real root isolation.

AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.

AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.

AFUPRII Algebraic number field univariate polynomial real root isolation induction.

AFUPRRI Algebraic number field univariate polynomial relative real root isolation.

AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.

IPLRRI Integral polynomial list real root isolation.

IPRICL Integral polynomial real root isolation, Collins-Loos algorithm.
IPRIM Integral polynomial real root isolation, modified Uspensky method.
IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.
IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.
IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.
IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.
IPRRII Integral polynomial real root isolation induction.
IPRRRI Integral polynomial relative real root isolation.
IPSRM Integral polynomial strong real root isolation, modified Uspensky method.
IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

iupqs

IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.

kannan

LDSMKB Linear diophantine system solution, modified Kannan and Bachem algorithm.

karatsuba

IPRODK Integer product, karatsuba algorithm.

large

ILPDS Integer large prime divisor search.

last

LASTCELL Last cell.

leading

IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.
IPBHTLV Integral polynomial binary homothetic transformation, leading variable.
IPTR1LV Integral polynomial translation by one, leading variable.
IPTRLV Integral polynomial translation, leading variable.
PLBCF Polynomial leading base coefficient.
PLDCF Polynomial leading coefficient.

least

ILCM Integer least common multiple.
RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.

lemma

IPIQH Integral polynomial mod ideal quadratic hensel lemma.
IUPQH Integral univariate polynomial quadratic hensel lemma.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
MPIQH Modular polynomial mod ideal, quadratic Hensel lemma.
MPIQHL Modular polynomial mod ideal quadratic hensel lemma, list.
MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.

length

IDIPR2 Integer digit inner product, length 2.
LENGTH Length.
RIL Rational interval length.
RILC Rational interval length comparison.

letter

LETTER Letter.

lexicographically

CPLEXN Cartesian product, lexicographically next.
LEXNEX Lexicographically next.

line

ARGSACLIB Process the command line arguments.
FILINE Flush the input stream line.

linear

AFUPRL Algebraic number field univariate polynomial, root of a linear polynomial.
ILCOMB Integer linear combination.
IUPRLP Integral univariate polynomial, root of a linear polynomial.
LDSMKB Linear diophantine system solution, modified Kannan and Bachem algorithm.
LDSSBR Linear diophantine system solution, based on Rosser ideas.
VILCOM Vector of integers linear combination.

list

AFPRLS Algebraic number field polynomial real root list separation.
AFUPRLS Algebraic number field univariate polynomial real root list separation.
AMUPRLS Algebraic module univariate polynomial real root list separation.
CLOUT Character list out.
FRESL Fermat residue list.
FRLSM Fermat residue list, single modulus.
ILWRITE Integer list write.
IPFLC Integral polynomial factor list combine.
IPLCPP Integral polynomial list of contents and primitive parts.
IPLRRI Integral polynomial list real root isolation.
IPRRLS Integral polynomial real root list separation.
ISLIST Test for non-empty list.
ISNIL Test for empty list.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
LBIBMS List of BETA-integers bubble-merge sort.
LBIBS List of BETA-integers bubble sort.
LBIM List of BETA-integers merge.
LCONC List concatenation.
LEINST List element insertion.
LELTI List element.
LEROT List element rotation.
LFS List from String.
LINS List insertion.
LINSRT List insertion.
LIST1 List, 1 element.
LIST10 List, 10 elements.

LIST2 List, 2 elements.
LIST3 List, 3 elements.
LIST4 List, 4 elements.
LIST5 List, 5 elements.
LMERGE List merge.
LPERM List permute.
LREAD List read.
LSRCH List search.
LWRITE List write.
MDLCRA Modular digit list chinese remainder algorithm.
MPIQHL Modular polynomial mod ideal quadratic hensel lemma, list.
PCL Polynomial coefficient list.
SLELTI Set list element.
VLREAD Variable list read.
VLSRCH Variable list search.
VLWRITE Variable list write.

location

DIELOC Display Input Error Location.

logarithm

DLOG2 Digit logarithm, base 2.
IFCL2 Integer, floor and ceiling, logarithm, base 2.
ILOG2 Integer logarithm, base 2.
RNFCL2 Rational number floor and ceiling of logarithm, base 2.

lookahead

LKAHEAD Character lookahead.

loos

AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.
AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.
IPRICL Integral polynomial real root isolation, Collins-Loos algorithm.

lower

SFRLS Single-precision floating-point real number lower sum.

lowest

RNRED Rational number reduction to lowest terms.

main

AFPCMV Algebraic number field polynomial composition in main variable.
AFPDMV Algebraic number field polynomial derivative, main variable.
AFPEMV Algebraic number field polynomial evaluation of main variable.
AMPDMV Algebraic module polynomial derivative, main variable.
IPBHTMV Integral polynomial binary homothetic transformation, main variable.
IPDMV Integral polynomial derivative, main variable.
IPEMV Integral polynomial evaluation of main variable.
IPHDMV Integral polynomial higher derivative, main variable.
IPSMV Integral polynomial substitution for main variable.
IPTRMV Integral polynomial translation, main variable.
main Default main routine.
MCPMV Matrix of coefficients of polynomials, with respect to main variable.
MPEMV Modular polynomial evaluation of main variable.

PMPMV Polynomial multiplication by power of main variable.
PTMV Polynomial transpose main variables. PTV Polynomial transpose variables.
RPDMV Rational polynomial derivative, main variable.
RPEMV Rational polynomial evaluation, main variable.
RPIMV Rational polynomial integration, main variable.

mark

MARK Mark.

matrix

MAIPDE Matrix of integral polynomials determinant, exact division algorithm.
MAIPDM Matrix of integral polynomials determinant, modular algorithm.
MAIPHM Matrix of integral polynomials homomorphism.
MAIPP Matrix of integral polynomials product.
MCPMV Matrix of coefficients of polynomials, with respect to main variable.
MIAIM Matrix of integers, adjoin identity matrix.
MIAIM Matrix of integers, adjoin identity matrix.
MICINS Matrix of integers column insertion.
MICS Matrix of integers column sort.
MINNCT Matrix of integers, non-negative column transformation.
MMDDET Matrix of modular digits determinant.
MMDNSB Matrix of modular digits null-space basis.
MMPDMA Matrix of modular polynomials determinant, modular algorithm.
MMPEV Matrix of modular polynomials evaluation.

max

RNMAX Rational number max.

maximum

IMAX Integer maximum.
IPMAXN Integral polynomial maximum norm.
MAX Maximum.
VMAX Vector maximum.

medium

IMPDS Integer medium prime divisor search.

membership

MEMBER Membership test.

memory

GCAFREE Garbage collected array memory deallocation.
GCAMALLOC Garbage collected array memory allocation.

merge

LBIBMS List of BETA-integers bubble-merge sort.
LBIM List of BETA-integers merge.
LMERGE List merge.

method

AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.
AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.
AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.
AMUPRINCS Algebraic module univariate polynomial root isolation, nor-

malized coefficient sign variation method.
IPRCNP Integral polynomial real root calculation, Newton method preparation.
IPRIM Integral polynomial real root isolation, modified Uspensky method.
IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.
IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.
IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.
IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.
IPSRM Integral polynomial strong real root isolation, modified Uspensky method.
IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

min
RNMIN Rational number min.

minimal
AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.
AMUPMPR Algebraic module univariate polynomial minimal polynomial of a real root.

minimum
IMIN Integer minimum.
MIN Minimum.
VMIN Vector minimum.

minus
ACLOCK Clock minus garbage collection time.

mod
IPIHOM Integral polynomial mod ideal homomorphism.
IPIPR Integral polynomial mod ideal product.
IPIQH Integral polynomial mod ideal quadratic hensel lemma.
MIPIPR Modular integral polynomial mod ideal product.
MIPISE Modular integral polynomial mod ideal, solution of equation.
MMPIQR Modular monic polynomial mod ideal quotient and remainder.
MPIQH Modular polynomial mod ideal, quadratic Hensel lemma.
MPIQHL Modular polynomial mod ideal quadratic hensel lemma, list.
MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.

modified
IPRIM Integral polynomial real root isolation, modified Uspensky method.
IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.
IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.
IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.
IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.
IPSRM Integral polynomial strong real root isolation, modified Uspensky method.

IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

LDSMKB Linear diophantine system solution, modified Kannan and Bachem algorithm.

PMDEG Polynomial modified degree.

modular

DMPPRD Dense modular polynomial product.

DMPSUM Dense modular polynomial sum.

DMUPNR Dense modular univariate polynomial natural remainder.

MAIPDM Matrix of integral polynomials determinant, modular algorithm.

MDCRA Modular digit chinese remainder algorithm.

MDDIF Modular digit difference.

MDEXP Modular digit exponentiation.

MDHOM Modular digit homomorphism.

MDINV Modular digit inverse.

MDLCRA Modular digit list chinese remainder algorithm.

MDNEG Modular digit negative.

MDPROD Modular digit product.

MDQ Modular digit quotient.

MDRAN Modular digit, random.

MDSUM Modular digit sum.

MIDCRA Modular integer digit chinese remainder algorithm.

MIDIF Modular integer difference.

MIEXP Modular integer exponentiation.

MIHOM Modular integer homomorphism.

MIINV Modular integer inverse.

MINEG Modular integer negation.

MIPDIF Modular integral polynomial difference.

MIPFSM Modular integral polynomial from symmetric modular.

MIPFSM Modular integral polynomial from symmetric modular.

MIPHOM Modular integral polynomial homomorphism.

MIPIPR Modular integral polynomial mod ideal product.

MIPISE Modular integral polynomial mod ideal, solution of equation.

MIPNEG Modular integral polynomial negation.

MIPPR Modular integral polynomial product.

MIPRAN Modular integral polynomial, random.

MIPROD Modular integer product.

MIPSUM Modular integral polynomial sum.

MIQ Modular integer quotient.

MIRAN Modular integer, random.

MISUM Modular integer sum.

MIUPQR Modular integral univariate polynomial quotient and remainder.

MIUPSE Modular integral univariate polynomial, solution of equation.

MMDDET Matrix of modular digits determinant.

MMDNSB Matrix of modular digits null-space basis.

MMPDMA Matrix of modular polynomials determinant, modular algorithm.

MMPDMA Matrix of modular polynomials determinant, modular algorithm.

MMPEV Matrix of modular polynomials evaluation.

MMPIQR Modular monic polynomial mod ideal quotient and remainder.

MPDIF Modular polynomial difference.

MPEMV Modular polynomial evaluation of main variable.
MPEVAL Modular polynomial evaluation.
MPEXP Modular polynomial exponentiation.
MPGCDC Modular polynomial greatest common divisor and cofactors.
MPHOM Modular polynomial homomorphism.
MPINT Modular polynomial interpolation.
MPIQH Modular polynomial mod ideal, quadratic Hensel lemma.
MPIQHL Modular polynomial mod ideal quadratic hensel lemma, list.
MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.
MPMDP Modular polynomial modular digit product.
MPMDP Modular polynomial modular digit product.
MPMON Modular polynomial monic.
MPNEG Modular polynomial negative.
MPPROD Modular polynomial product.
MPPSR Modular polynomial pseudo-remainder.
MPQ Modular polynomial quotient.
MPQR Modular polynomial quotient and remainder.
MPRAN Modular polynomial, random.
MPRES Modular polynomial resultant.
MPSPRS Modular polynomial subresultant polynomial remainder sequence.
MPSUM Modular polynomial sum.
MPUC Modular polynomial univariate content.
MPUCPP Modular polynomial univariate content and primitive part.
MPUCS Modular polynomial univariate content subroutine.
MPUP Modular polynomial univariate product.
MPUPP Modular polynomial univariate primitive part.
MPUQ Modular polynomial univariate quotient.
MUPBQP Modular univariate polynomial berlekamp Q polynomials construction.
MUPDDF Modular univariate polynomial distinct degree factorization.
MUPDER Modular univariate polynomial derivative.
MUPEGC Modular univariate polynomial extended greatest common divisor.
MUPFBL Modular univariate polynomial factorization-berlekamp algorithm.
MUPFS Modular univariate polynomial factorization, special.
MUPGCD Modular univariate polynomial greatest common divisor.
MUPHEG Modular univariate polynomial half-extended greatest common divisor.
MUPRAN Modular univariate polynomial, random.
MUPRC Modular univariate polynomial resultant and cofactor.
MUPRES Modular univariate polynomial resultant.
MUPSFF Modular univariate polynomial squarefree factorization.
SMFMI Symmetric modular from modular integer.
SMFMI Symmetric modular from modular integer.
SMFMIP Symmetric modular from modular integral polynomial.
SMFMIP Symmetric modular from modular integral polynomial.
VMPIP Vector of modular polynomial inner product.

module

AMPDMV Algebraic module polynomial derivative, main variable.
AMPSAFP Algebraic module polynomial similar to algebraic field polyno-

mial.

AMSIGN Algebraic module sign.

AMSIGNIR Algebraic module sign, interval refinement.

AMUPBES Algebraic module univariate polynomial, binary rational evaluation of sign.

AMUPBHT Algebraic module univariate polynomial binary homothetic transformation.

AMUPIIR Algebraic module polynomial isolating interval refinement.

AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AMUPMPR Algebraic module univariate polynomial minimal polynomial of a real root.

AMUPNT Algebraic module univariate polynomial negative transformation.

AMUPRBH Algebraic module univariate polynomial root bound and homothetic transformation.

AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.

AMUPRLS Algebraic module univariate polynomial real root list separation.

AMUPRRS Algebraic module univariate polynomial real root separation.

AMUPSR Algebraic module univariate polynomial, sign at a rational point.

AMUPTR Algebraic module univariate polynomial translation.

AMUPTR1 Algebraic module univariate polynomial translation by 1.

AMUPVARIR Algebraic module univariate polynomial variations, interval refinement.

modulus

FRLSM Fermat residue list, single modulus.

SFCMSQ Single-precision floating-point complex modulus squared.

monic

AFPMON Algebraic number field polynomial monic.

MMPIQR Modular monic polynomial mod ideal quotient and remainder.

MPMON Modular polynomial monic.

RPMAIP Rational polynomial monic associate of integral polynomial.

monomial

PMON Polynomial monomial.

multiple

AFPME Algebraic number field polynomial multiple evaluation.

ILCM Integer least common multiple.

IPAFME Integral polynomial, algebraic number field multiple evaluation.

RPAFME Rational polynomial, algebraic number field multiple evaluation.

RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.

multiplication

IMP2 Integer multiplication by power of 2.

PMPMV Polynomial multiplication by power of main variable.

natural

DMUPNR Dense modular univariate polynomial natural remainder.

negation

INEG Integer negation.
MINEG Modular integer negation.
MIPNEG Modular integral polynomial negation.
RINEG Rational interval negation.
SFCNEG Single-precision floating-point complex negation.
SFRNEG Single-precision floating-point real negation.
VINEG Vector of integers negation.

negative

AFNEG Algebraic number field negative.
AFPNEG Algebraic number field polynomial negative.
AMUPNT Algebraic module univariate polynomial negative transformation.
DRANN Digit, random non-negative.
IPNEG Integral polynomial negative.
IPNT Integral polynomial negative transformation.
IUPNT Integral univariate polynomial negative transformation.
MDNEG Modular digit negative.
MINNCT Matrix of integers, non-negative column transformation.
MPNEG Modular polynomial negative.
RNNEG Rational number negative.
RPNEG Rational polynomial negative.

new

PINV Polynomial introduction of new variables.

newton

IPRCNP Integral polynomial real root calculation, Newton method preparation.

next

CPLEXN Cartesian product, lexicographically next.
LEXNEX Lexicographically next.
PARTN Partition, next.

non

DNIMP Digit non-implication.
DRANN Digit, random non-negative.
ISLIST Test for non-empty list.
MINNCT Matrix of integers, non-negative column transformation.

norm

AFPNORM Algebraic number field polynomial norm.
AFUPSFN Algebraic number field univariate polynomial squarefree norm.
IPMAXN Integral polynomial maximum norm.
IPSUMN Integral polynomial sum norm.

normalize

AFPNIP Algebraic number field polynomial normalize to integral polynomial.

normalized

AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.

normalizing

RINT Rational interval normalizing transformation.

not

DNOT Digit not.

null

MMDNSB Matrix of modular digits null-space basis.

number

AFCOMP Algebraic number field comparison.

AFCR Algebraic number field element convert representation.

AFDIF Algebraic number field element difference.

AFDWRITE Algebraic number field, decimal write.

AFFINT Algebraic number field element from integer.

AFFRN Algebraic number field element from rational number.

AFFRN Algebraic number field element from rational number.

AFICR Algebraic number field element inverse convert representation.

AFINV Algebraic number field element inverse.

AFNEG Algebraic number field negative.

AFPAFP Algebraic number field polynomial algebraic number field element product.

AFPAFP Algebraic number field polynomial algebraic number field element product.

AFPAFQ Algebraic number field polynomial algebraic number field element quotient.

AFPAFQ Algebraic number field polynomial algebraic number field element quotient.

AFPBRI Algebraic number field polynomial basis real root isolation.

AFPCMV Algebraic number field polynomial composition in main variable.

AFPCR Algebraic number field polynomial convert representation.

AFPDIF Algebraic number field polynomial difference.

AFPDMV Algebraic number field polynomial derivative, main variable.

AFPEMV Algebraic number field polynomial evaluation of main variable.

AFPEV Algebraic number field polynomial evaluation.

AFPFIP Algebraic number field polynomial from integral polynomial.

AFPFRP Algebraic number field polynomial from rational polynomial.

AFPICR Algebraic number field polynomial inverse convert representation.

AFPINT Algebraic number field polynomial integration.

AFPME Algebraic number field polynomial multiple evaluation.

AFPMON Algebraic number field polynomial monic.

AFPNEG Algebraic number field polynomial negative.

AFPNIP Algebraic number field polynomial normalize to integral polynomial.

AFPNORM Algebraic number field polynomial norm.

AFPPR Algebraic number field polynomial product.

AFPQR Algebraic number field polynomial quotient and remainder.

AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.

AFPRII Algebraic number field polynomial real root isolation induction.

AFPRLS Algebraic number field polynomial real root list separation.

AFPROD Algebraic number field element product.

AFPRRI Algebraic number field polynomial relative real root isolation.

AFPRRS Algebraic number field polynomial real root separation.

AFPSUM Algebraic number field polynomial sum.

AFPWRITE Algebraic number field polynomial write.

AFQ Algebraic number field quotient.

AFSIGN Algebraic number field sign.

AFSUM Algebraic number field element sum.

AFUPBRI Algebraic number field univariate polynomial basis real root isolation.
AFUPFAC Algebraic number field univariate polynomial factorization.
AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.
AFUPGS Algebraic number field polynomial greatest squarefree divisior.
AFUPIIR Algebraic number field polynomial isolating interval refinement.
AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.
AFUPRB Algebraic number field univariate polynomial root bound.
AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.
AFUPRII Algebraic number field univariate polynomial real root isolation induction.
AFUPRL Algebraic number field univariate polynomial, root of a linear polynomial.
AFUPRLS Algebraic number field univariate polynomial real root list separation.
AFUPRRI Algebraic number field univariate polynomial relative real root isolation.
AFUPRRS Algebraic number field univariate polynomial real root separation.
AFUPSF Algebraic number field univariate polynomial squarefree factorization.
AFUPSFN Algebraic number field univariate polynomial squarefree norm.
AFUPSR Algebraic number field univariate polynomial, sign at a rational point.
AFUPVAR Algebraic number field univariate polynomial variations.
AFUPWRITE Algebraic number field univariate polynomial write.
AIFAN Algebraic integer from algebraic number.
ANDWRITE Algebraic number decimal write.
ANFAF Algebraic number from algebraic number field element.
ANFAF Algebraic number from algebraic number field element.
ANIIPE Algebraic number isolating interval for a primitive element.
ANPEDE [Algebraic number primitive element for a double extension.
ANPROD Algebraic number product.
ANREPE Algebraic number represent element of a primitive extension.
ANSUM Algebraic number sum.
IPAFME Integral polynomial, algebraic number field multiple evaluation.
RIRNP Rational interval rational number product.
RNABS Rational number absolute value.
RNBCR Rational number binary common representation.
RNCEIL Rational number, ceiling of.
RNCOMP Rational number comparison.
RNDEN Rational number denominator.
RNDIF Rational number difference.
RNDWRITE Rational number decimal write.
RNFCL2 Rational number floor and ceiling of logarithm, base 2.
RNFLOR Rational number, floor of.

RNINT Rational number from integer.
RNINV Rational number inverse.
RNMAX Rational number max.
RNMIN Rational number min.
RNNEG Rational number negative.
RNNUM Rational number numerator.
RNP2 Rational number power of 2.
RNPROD Rational number product.
RNQ Rational number quotient.
RNRAND Rational number, random.
RNREAD Rational number read.
RNRED Rational number reduction to lowest terms.
RNSIGN Rational number sign.
RNSUM Rational number sum.
RNWRITE Rational number write.
RPAFME Rational polynomial, algebraic number field multiple evaluation.
RPRNP Rational polynomial rational number product.
SFRLS Single-precision floating-point real number lower sum.

numerator

RNNUM Rational number numerator.

object

ISOBJECT Test for object.
OREAD Object read.
OWRITE Object write.

odd

IODD Integer odd.
ODD Odd.

one

IPONE Integral polynomial one.
IPTR1 Integral polynomial translation by one, specified variable.
IPTR1LV Integral polynomial translation by one, leading variable.

open

IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.
IUPVOI Integral univariate polynomial, variations for open interval.

or

DOR Digit or.

order

IORD2 Integer, order of 2.
ORDER Order.
PDBORD Polynomial divided by order.
PORD Polynomial order.

out

CLOUT Character list out.
INFOSACLIB Write out usage information for SACLIB.

output

IUPBEI Integral univariate polynomial binary rational evaluation, integer output.

pair

PAIR Pair.

part

IPCPP Integral polynomial content and primitive part.
IPICPP Integral polynomial integer content and primitive part.
IPIPP Integral polynomial integer primitive part.
IPPP Integral polynomial primitive part.
IPSCPP Integral polynomial sign, content, and primitive part.
MPUCPP Modular polynomial univariate content and primitive part.
MPUPP Modular polynomial univariate primitive part.
SFCIP Single-precision floating-point complex, imaginary part.
SFCRP Single-precision floating-point complex, real part.

partial

DPCC Digit partial cosequence calculation.
IBCPS Integer binomial coefficient partial sum.

partition

CSFPAR Characteristic set from partition.
PARTN Partition, next.
PARTR Partition, random.
PARTSS Partition sumset.

parts

IPLCPP Integral polynomial list of contents and primitive parts.

pcpv

PCONST Polynomial constant. PCPV Polynomial cyclic permutation of variables.

permutation

PCONST Polynomial constant. PCPV Polynomial cyclic permutation of variables.
PERMCY Permutation, cyclic.
PERMR Permutation, random.
PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.
PPERMV Polynomial permutation of variables.

permute

LPERM List permute.

picpv

PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.

plane

IPVCHT Integral polynomial variations after circle to half-plane transformation.
IUPCHT Integral univariate polynomial circle to half-plane transformation.

point

AFUPSR Algebraic number field univariate polynomial, sign at a rational point.
AMUPSR Algebraic module univariate polynomial, sign at a rational point.
GC Garbage collection entry-point.
SFCCON Single-precision floating-point complex conjugation.
SFCDIF Single-precision floating-point complex difference.
SFCFR Single-precision floating-point complex from real.
SFCIP Single-precision floating-point complex, imaginary part.
SFCMSQ Single-precision floating-point complex modulus squared.

SFCNEG Single-precision floating-point complex negation.
SFCPR Single-precision floating-point complex product.
SFCQ Single-precision floating-point complex quotient.
SFCRP Single-precision floating-point complex, real part.
SFCSUM Single-precision floating-point complex sum.
SFIFI Single-precision floating-point interval from integer.
SFRABS Single-precision floating-point real absolute value.
SFRDIF Single-precision floating-point real difference.
SFRLS Single-precision floating-point real number lower sum.
SFRNEG Single-precision floating-point real negation.
SFRPR Single-precision floating-point real product.
SFRQ Single-precision floating-point real quotient.
SFRSUM Single-precision floating-point real sum.

pointer

GCA2PTR Convert garbage collected array handle to C pointer.

points

IPCEVP Integral polynomial, choice of evaluation points.

polynomial

AFPAFP Algebraic number field polynomial algebraic number field element product.
AFPAFQ Algebraic number field polynomial algebraic number field element quotient.
AFPBRI Algebraic number field polynomial basis real root isolation.
AFPCMV Algebraic number field polynomial composition in main variable.
AFPCR Algebraic number field polynomial convert representation.
AFPDIF Algebraic number field polynomial difference.
AFPDMV Algebraic number field polynomial derivative, main variable.
AFPEMV Algebraic number field polynomial evaluation of main variable.
AFPEV Algebraic number field polynomial evaluation.
AFPFIP Algebraic number field polynomial from integral polynomial.
AFPFIP Algebraic number field polynomial from integral polynomial.
AFPFRP Algebraic number field polynomial from rational polynomial.
AFPFRP Algebraic number field polynomial from rational polynomial.
AFPICR Algebraic number field polynomial inverse convert representation.
AFPINT Algebraic number field polynomial integration.
AFPME Algebraic number field polynomial multiple evaluation.
AFPMON Algebraic number field polynomial monic.
AFPNEG Algebraic number field polynomial negative.
AFPNIP Algebraic number field polynomial normalize to integral polynomial.
AFPNIP Algebraic number field polynomial normalize to integral polynomial.
AFPNORM Algebraic number field polynomial norm.
AFPPR Algebraic number field polynomial product.
AFPQR Algebraic number field polynomial quotient and remainder.
AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.
AFPRII Algebraic number field polynomial real root isolation induction.
AFPRLS Algebraic number field polynomial real root list separation.
AFPRRI Algebraic number field polynomial relative real root isolation.
AFPRRS Algebraic number field polynomial real root separation.
AFPSUM Algebraic number field polynomial sum.

AFPWRITE Algebraic number field polynomial write.
AFUPBRI Algebraic number field univariate polynomial basis real root isolation.
AFUPFAC Algebraic number field univariate polynomial factorization.
AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.
AFUPGS Algebraic number field polynomial greatest squarefree divisior.
AFUPIIR Algebraic number field polynomial isolating interval refinement.
AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.
AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.
AFUPRB Algebraic number field univariate polynomial root bound.
AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.
AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.
AFUPRII Algebraic number field univariate polynomial real root isolation induction.
AFUPRL Algebraic number field univariate polynomial, root of a linear polynomial.
AFUPRL Algebraic number field univariate polynomial, root of a linear polynomial.
AFUPRLS Algebraic number field univariate polynomial real root list separation.
AFUPRRI Algebraic number field univariate polynomial relative real root isolation.
AFUPRRS Algebraic number field univariate polynomial real root separation.
AFUPSF Algebraic number field univariate polynomial squarefree factorization.
AFUPSFN Algebraic number field univariate polynomial squarefree norm.
AFUPSR Algebraic number field univariate polynomial, sign at a rational point.
AFUPVAR Algebraic number field univariate polynomial variations.
AFUPWRITE Algebraic number field univariate polynomial write.
AMPDMV Algebraic module polynomial derivative, main variable.
AMPSAFP Algebraic module polynomial similar to algebraic field polynomial.
AMPSAFP Algebraic module polynomial similar to algebraic field polynomial.
AMUPBES Algebraic module univariate polynomial, binary rational evaluation of sign.
AMUPBHT Algebraic module univariate polynomial binary homothetic transformation.
AMUPIIR Algebraic module polynomial isolating interval refinement.
AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.
AMUPMPR Algebraic module univariate polynomial minimal polynomial of

a real root.

AMUPMPR Algebraic module univariate polynomial minimal polynomial of a real root.

AMUPNT Algebraic module univariate polynomial negative transformation.

AMUPRBH Algebraic module univariate polynomial root bound and homothetic transformation.

AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.

AMUPRLS Algebraic module univariate polynomial real root list separation.

AMUPRRS Algebraic module univariate polynomial real root separation.

AMUPSR Algebraic module univariate polynomial, sign at a rational point.

AMUPTR Algebraic module univariate polynomial translation.

AMUPTR1 Algebraic module univariate polynomial translation by 1.

AMUPVARIR Algebraic module univariate polynomial variations, interval refinement.

DIIPREAD Distributive integral polynomial read.

DIIPWRITE Distributive integral polynomial write.

DIPDEG Distributive polynomial degree.

DIPFP Distributive polynomial from polynomial.

DIPFP Distributive polynomial from polynomial.

DIPINS Distributive polynomial, insert term.

DIRPREAD Distributive rational polynomial read.

DIRPWRITE Distributive rational polynomial write.

DMPPRD Dense modular polynomial product.

DMPSUM Dense modular polynomial sum.

DMUPNR Dense modular univariate polynomial natural remainder.

DPFP Dense polynomial from polynomial.

DPFP Dense polynomial from polynomial.

IPABS Integral polynomial absolute value.

IPAFME Integral polynomial, algebraic number field multiple evaluation.

IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.

IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.

IPBHT Integral polynomial binary homothetic transformation.

IPBHTLV Integral polynomial binary homothetic transformation, leading variable.

IPBHTMV Integral polynomial binary homothetic transformation, main variable.

IPBREI Integral polynomial binary rational evaluation, integral polynomial result.

IPBREI Integral polynomial binary rational evaluation, integral polynomial result.

IPC Integral polynomial content.

IPCEVP Integral polynomial, choice of evaluation points.

IPCONST Integral polynomial constant.

IPCPP Integral polynomial content and primitive part.
IPCRA Integral polynomial chinese remainder algorithm.
IPCSFB Integral polynomial coarsest squarefree basis.
IPDER Integral polynomial derivative.
IPDIF Integral polynomial difference.
IPDMV Integral polynomial derivative, main variable.
IPDSCR Integral polynomial discriminant.
IPDWRITE Integral Polynomial Distributive Write.
IPEMV Integral polynomial evaluation of main variable.
IPEVAL Integral polynomial evaluation.
IPEXP Integral polynomial exponentiation.
IPEXPREAD Integral polynomial expression read.
IPEXPREADR Integral polynomial expression read, remove terminating character.
IPFAC Integral polynomial factorization.
IPFACTREAD Integral polynomial factor read.
IPFCB Integral polynomial factor coefficient bound.
IPFLC Integral polynomial factor list combine.
IPFRP Integral polynomial from rational polynomial.
IPFRP Integral polynomial from rational polynomial.
IPFSD Integral polynomial factorization, second derivative.
IPFSFB Integral polynomial finest squarefree basis.
IPGCDC Integral polynomial greatest common divisor and cofactors.
IPGFCB Integral polynomial Gelfond factor coefficient bound.
IPGSUB Integral polynomial general substitution.
IPHDMV Integral polynomial higher derivative, main variable.
IPIC Integral polynomial integer content.
IPICPP Integral polynomial integer content and primitive part.
IPICS Integral polynomial integer content subroutine.
IPIHOM Integral polynomial mod ideal homomorphism.
IPIIWS Integral polynomial isolating intervals weakly disjoint to strongly disjoint.
IPINT Integral polynomial integration.
IPIP Integral polynomial integer product.
IPIPP Integral polynomial integer primitive part.
IPIPR Integral polynomial mod ideal product.
IPIQ Integral polynomial integer quotient.
IPIQH Integral polynomial mod ideal quadratic hensel lemma.
IPLCPP Integral polynomial list of contents and primitive parts.
IPLRRI Integral polynomial list real root isolation.
IPMAXN Integral polynomial maximum norm.
IPNEG Integral polynomial negative.
IPNT Integral polynomial negative transformation.
IPONE Integral polynomial one.
IPP2P Integral polynomial power of 2 product.
IPPGSD Integral polynomial primitive greatest squarefree divisor.
IPPOWREAD Integral polynomial power read.
IPPP Integral polynomial primitive part.
IPPROD Integral polynomial product.
IPPSC Integral polynomial principal subresultant coefficients.

IPPSR Integral polynomial pseudo-remainder.
IPQ Integral polynomial quotient.
IPQR Integral polynomial quotient and remainder.
IPRAN Integral polynomial, random.
IPRCH Integral polynomial real root calculation, high precision.
IPRCHS Integral polynomial real root calculation, high-precision special.
IPRCN1 Integral polynomial real root calculation, 1 root.
IPRCNP Integral polynomial real root calculation, Newton method preparation.
IPREAD Integral polynomial read.
IPRES Integral polynomial resultant.
IPRICL Integral polynomial real root isolation, Collins-Loos algorithm.
IPRIM Integral polynomial real root isolation, modified Uspensky method.
IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.
IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.
IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.
IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.
IPRPRS Integral polynomial reduced polynomial remainder sequence.
IPRPRS Integral polynomial reduced polynomial remainder sequence.
IPRRII Integral polynomial real root isolation induction.
IPRRLS Integral polynomial real root list separation.
IPRRRI Integral polynomial relative real root isolation.
IPRRS Integral polynomial real root separation.
IPSCPP Integral polynomial sign, content, and primitive part.
IPSF Integral polynomial squarefree factorization.
IPSFBA Integral polynomial squarefree basis augmentation.
IPSIFI Integral polynomial standard isolating interval from isolating interval.
IPSIGN Integral polynomial sign.
IPSMV Integral polynomial substitution for main variable.
IPSPRS Integral polynomial subresultant polynomial remainder sequence.
IPSPRS Integral polynomial subresultant polynomial remainder sequence.
IPSRM Integral polynomial strong real root isolation, modified Uspensky method.
IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.
IPSRP Integral polynomial similiar to rational polynomial.
IPSRP Integral polynomial similiar to rational polynomial.
IPSUB Integral polynomial substitution.
IPSUM Integral polynomial sum.
IPSUMN Integral polynomial sum norm.
IPTERMREAD Integral polynomial term read.
IPTPR Integral polynomial truncated product.
IPTR Integral polynomial translation, specified variable.
IPTR1 Integral polynomial translation by one, specified variable.
IPTR1LV Integral polynomial translation by one, leading variable.
IPTRAN Integral polynomial translation.
IPTRLV Integral polynomial translation, leading variable.

IPTRMV Integral polynomial translation, main variable.
IPTRUN Integral polynomial truncation.
IPVCHT Integral polynomial variations after circle to half-plane transformation.
IPWRITE Integral polynomial write.
ISFPF Integral squarefree polynomial factorization.
ISFPIR Integral squarefree polynomial isolating interval refinement.
ISPSFB Integral squarefree polynomial squarefree basis.
IUPBEI Integral univariate polynomial binary rational evaluation, integer output.
IUPBES Integral univariate polynomial binary rational evaluation of sign.
IUPBHT Integral univariate polynomial binary homothetic transformation.
IUPBRE Integral univariate polynomial binary rational evaluation.
IUPCHT Integral univariate polynomial circle to half-plane transformation.
IUPFAC Integral univariate polynomial factorization.
IUPFDS Integral univariate polynomial factor degree set.
IUPIHT Integral univariate polynomial integer homothetic transformation.
IUPIIR Integral univariate polynomial isolating interval refinement.
IUPNT Integral univariate polynomial negative transformation.
IUPQH Integral univariate polynomial quadratic hensel lemma.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
IUPRB Integral univariate polynomial root bound.
IUPRC Integral univariate polynomial resultant and cofactor.
IUPRLP Integral univariate polynomial, root of a linear polynomial.
IUPRLP Integral univariate polynomial, root of a linear polynomial.
IUPSR Integral univariate polynomial semi-remainder.
IUPTPR Integral univariate polynomial truncated product.
IUPTR Integral univariate polynomial translation.
IUPTR1 Integral univariate polynomial translation by 1.
IUPVAR Integral univariate polynomial variations.
IUPVOI Integral univariate polynomial, variations for open interval.
IUPVSI Integral univariate polynomial, variations for standard interval.
IUPWRITE Integral univariate polynomial write.
IUSFPF Integral univariate squarefree polynomial factorization.
MIPDIF Modular integral polynomial difference.
MIPFSM Modular integral polynomial from symmetric modular.
MIPHOM Modular integral polynomial homomorphism.
MIPIPR Modular integral polynomial mod ideal product.
MIPISE Modular integral polynomial mod ideal, solution of equation.
MIPNEG Modular integral polynomial negation.
MIPPR Modular integral polynomial product.
MIPRAN Modular integral polynomial, random.
MIPSUM Modular integral polynomial sum.
MIUPQR Modular integral univariate polynomial quotient and remainder.
MIUPSE Modular integral univariate polynomial, solution of equation.
MMPIQR Modular monic polynomial mod ideal quotient and remainder.
MPDIF Modular polynomial difference.

MPEMV Modular polynomial evaluation of main variable.
MPEVAL Modular polynomial evaluation.
MPEXP Modular polynomial exponentiation.
MPGCDC Modular polynomial greatest common divisor and cofactors.
MPHOM Modular polynomial homomorphism.
MPINT Modular polynomial interpolation.
MPIQH Modular polynomial mod ideal, quadratic Hensel lemma.
MPIQHL Modular polynomial mod ideal quadratic hensel lemma, list.
MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.
MPMDP Modular polynomial modular digit product.
MPMON Modular polynomial monic.
MPNEG Modular polynomial negative.
MPPROD Modular polynomial product.
MPPSR Modular polynomial pseudo-remainder.
MPQ Modular polynomial quotient.
MPQR Modular polynomial quotient and remainder.
MPRAN Modular polynomial, random.
MPRES Modular polynomial resultant.
MPSPRS Modular polynomial subresultant polynomial remainder sequence.
MPSPRS Modular polynomial subresultant polynomial remainder sequence.
MPSUM Modular polynomial sum.
MPUC Modular polynomial univariate content.
MPUCPP Modular polynomial univariate content and primitive part.
MPUCS Modular polynomial univariate content subroutine.
MPUP Modular polynomial univariate product.
MPUPP Modular polynomial univariate primitive part.
MPUQ Modular polynomial univariate quotient.
MUPBQP Modular univariate polynomial berlekamp Q polynomials construction.
MUPDDF Modular univariate polynomial distinct degree factorization.
MUPDER Modular univariate polynomial derivative.
MUPEGC Modular univariate polynomial extended greatest common divisor.
MUPFBL Modular univariate polynomial factorization-berlekamp algorithm.
MUPFS Modular univariate polynomial factorization, special.
MUPGCD Modular univariate polynomial greatest common divisor.
MUPHEG Modular univariate polynomial half-extended greatest common divisor.
MUPRAN Modular univariate polynomial, random.
MUPRC Modular univariate polynomial resultant and cofactor.
MUPRES Modular univariate polynomial resultant.
MUPSFF Modular univariate polynomial squarefree factorization.
PBIN Polynomial binomial.
PCL Polynomial coefficient list.
PCONST Polynomial constant. PCPV Polynomial cyclic permutation of variables.
PCONST Polynomial constant. PCPV Polynomial cyclic permutation of variables.
PDBORD Polynomial divided by order.
PDEG Polynomial degree.

PDEGSV Polynomial degree, specified variable.
PDEGV Polynomial degree vector.
PDPV Polynomial division by power of variable.
PFBRE Polynomial From Base Ring Element.
PFDIP Polynomial from distributive polynomial.
PFDIP Polynomial from distributive polynomial.
PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.
PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.
PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.
PINV Polynomial introduction of new variables.
PLBCF Polynomial leading base coefficient.
PLDCF Polynomial leading coefficient.
PMDEG Polynomial modified degree.
PMON Polynomial monomial.
PMPMV Polynomial multiplication by power of main variable.
PORD Polynomial order.
PPERMV Polynomial permutation of variables.
PRED Polynomial reductum.
PRT Polynomial reciprocal transformation.
PSDSV Polynomial special decomposition, specified variable.
PTBCF Polynomial trailing base coefficient.
PTMV Polynomial transpose main variables. PTV Polynomial transpose variables.
PTMV Polynomial transpose main variables. PTV Polynomial transpose variables.
PUFP Polynomial, univariate, from polynomial.
PUFP Polynomial, univariate, from polynomial.
PUNT Polynomial univariate test.
RPAFME Rational polynomial, algebraic number field multiple evaluation.
RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.
RPDIF Rational polynomial difference.
RPDMV Rational polynomial derivative, main variable.
RPDWRITE Rational Polynomial Distributive Write.
RPEMV Rational polynomial evaluation, main variable.
RPEXPREAD Rational polynomial expression read.
RPFACTREAD Rational polynomial factor read.
RPFIP Rational polynomial from integral polynomial.
RPFIP Rational polynomial from integral polynomial.
RPIMV Rational polynomial integration, main variable.
RPMAIP Rational polynomial monic associate of integral polynomial.
RPMAIP Rational polynomial monic associate of integral polynomial.
RPNEG Rational polynomial negative.
RPPOWREAD Rational polynomial power read.
RPPROD Rational polynomial product.
RPQR Rational polynomial quotient and remainder.
RPREAD Rational polynomial read.

RPRNP Rational polynomial rational number product.
RPSUM Rational polynomial sum.
RPTERMREAD Rational polynomial term read.
RPWRITE Rational polynomial write.
RUPWRITE Rational univariate polynomial write.
SMFMIP Symmetric modular from modular integral polynomial.
VMPIP Vector of modular polynomial inner product.

polynomials

MAIPDE Matrix of integral polynomials determinant, exact division algorithm.
MAIPDM Matrix of integral polynomials determinant, modular algorithm.
MAIPHM Matrix of integral polynomials homomorphism.
MAIPP Matrix of integral polynomials product.
MCPMV Matrix of coefficients of polynomials, with respect to main variable.
MMPDMA Matrix of modular polynomials determinant, modular algorithm.
MMPEV Matrix of modular polynomials evaluation.
MUPBQP Modular univariate polynomial berlekamp Q polynomials construction.

power

IDP2 Integer division by power of 2.
IMP2 Integer multiplication by power of 2.
IPOWER Integer power.
IPP2P Integral polynomial power of 2 product.
IPPOWREAD Integral polynomial power read.
PDPV Polynomial division by power of variable.
PMPMV Polynomial multiplication by power of main variable.
RNP2 Rational number power of 2.
RPPOWREAD Rational polynomial power read.

precision

IPRCH Integral polynomial real root calculation, high precision.
IPRCHS Integral polynomial real root calculation, high-precision special.
SFCCON Single-precision floating-point complex conjugation.
SFCDIF Single-precision floating-point complex difference.
SFCFR Single-precision floating-point complex from real.
SFCIP Single-precision floating-point complex, imaginary part.
SFCMSQ Single-precision floating-point complex modulus squared.
SFCNEG Single-precision floating-point complex negation.
SFCPR Single-precision floating-point complex product.
SFCQ Single-precision floating-point complex quotient.
SFCRP Single-precision floating-point complex, real part.
SFCSUM Single-precision floating-point complex sum.
SFIFI Single-precision floating-point interval from integer.
SFRABS Single-precision floating-point real absolute value.
SFRDIF Single-precision floating-point real difference.
SFRLS Single-precision floating-point real number lower sum.
SFRNEG Single-precision floating-point real negation.
SFRPR Single-precision floating-point real product.
SFRQ Single-precision floating-point real quotient.
SFRSUM Single-precision floating-point real sum.

preparation

IPRCNP Integral polynomial real root calculation, Newton method preparation.

primality

ISPT Integer selfridge primality test.

prime

DPGEN Digit prime generator.
GDPGEN Gaussian digit prime generator.
ILPDS Integer large prime divisor search.
IMPDS Integer medium prime divisor search.
ISPD Integer small prime divisors.

primitive

ANIIPE Algebraic number isolating interval for a primitive element.
ANPEDE [Algebraic number primitive element for a double extension.
ANREPE Algebraic number represent element of a primitive extension.
IPCPP Integral polynomial content and primitive part.
IPICPP Integral polynomial integer content and primitive part.
IPIPP Integral polynomial integer primitive part.
IPLCPP Integral polynomial list of contents and primitive parts.
IPPGSD Integral polynomial primitive greatest squarefree divisor.
IPPP Integral polynomial primitive part.
IPSCPP Integral polynomial sign, content, and primitive part.
MPUCPP Modular polynomial univariate content and primitive part.
MPUPP Modular polynomial univariate primitive part.

principal

IPPSC Integral polynomial principal subresultant coefficients.

problem

ASSPR Assignment problem.

process

ARGSACLIB Process the command line arguments.

product

AFPAFP Algebraic number field polynomial algebraic number field element product.
AFPPR Algebraic number field polynomial product.
AFPROD Algebraic number field element product.
ANPROD Algebraic number product.
CPLEXN Cartesian product, lexicographically next.
DMPPRD Dense modular polynomial product.
DPR Digit product.
IDIPR2 Integer digit inner product, length 2.
IDPR Integer-digit product.
IPIP Integral polynomial integer product.
IPIPR Integral polynomial mod ideal product.
IPP2P Integral polynomial power of 2 product.
IPPROD Integral polynomial product.
IPROD Integer product.
IPRODK Integer product, karatsuba algorithm.
IPTPR Integral polynomial truncated product.
IUPTPR Integral univariate polynomial truncated product.
MAIPP Matrix of integral polynomials product.
MDPROD Modular digit product.

MIPIPR Modular integral polynomial mod ideal product.
MIPPR Modular integral polynomial product.
MIPROD Modular integer product.
MPMDP Modular polynomial modular digit product.
MPPROD Modular polynomial product.
MPUP Modular polynomial univariate product.
RIPROD Rational interval product.
RIRNP Rational interval rational number product.
RNPROD Rational number product.
RPPROD Rational polynomial product.
RPRNP Rational polynomial rational number product.
SFCPR Single-precision floating-point complex product.
SFRPR Single-precision floating-point real product.
VISPR Vector of integers scalar product.
VMPIP Vector of modular polynomial inner product.

pseudo

IPPSR Integral polynomial pseudo-remainder.
MPPSR Modular polynomial pseudo-remainder.

ptv

PTMV Polynomial transpose main variables. PTV Polynomial transpose variables.

q

MUPBQP Modular univariate polynomial berlekamp Q polynomials construction.

quadratic

IPIQH Integral polynomial mod ideal quadratic hensel lemma.
IUPQH Integral univariate polynomial quadratic hensel lemma.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
MPIQH Modular polynomial mod ideal, quadratic Hensel lemma.
MPIQHL Modular polynomial mod ideal quadratic hensel lemma, list.
MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.

quotient

AFPAFQ Algebraic number field polynomial algebraic number field element quotient.
AFPQR Algebraic number field polynomial quotient and remainder.
AFQ Algebraic number field quotient.
DQR Digit quotient and remainder.
IDQ Integer-digit quotient.
IDQR Integer-digit quotient and remainder.
IPIQ Integral polynomial integer quotient.
IPQ Integral polynomial quotient.
IPQR Integral polynomial quotient and remainder.
IQ Integer quotient.
IQR Integer quotient and remainder.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
MDQ Modular digit quotient.
MIQ Modular integer quotient.

MIUPQR Modular integral univariate polynomial quotient and remainder.
MMPIQR Modular monic polynomial mod ideal quotient and remainder.
MPQ Modular polynomial quotient.
MPQR Modular polynomial quotient and remainder.
MPUQ Modular polynomial univariate quotient.
QREM Quotient and remainder.
RNQ Rational number quotient.
RPQR Rational polynomial quotient and remainder.
SFCQ Single-precision floating-point complex quotient.
SFRQ Single-precision floating-point real quotient.

random

BITRAN Bit, random.
DRAN Digit, random.
DRANN Digit, random non-negative.
IPRAN Integral polynomial, random.
IRAND Integer, random.
MDRAN Modular digit, random.
MIPRAN Modular integral polynomial, random.
MIRAN Modular integer, random.
MPRAN Modular polynomial, random.
MUPRAN Modular univariate polynomial, random.
PARTR Partition, random.
PERMR Permutation, random.
RNRAND Rational number, random.

rational

AFFRN Algebraic number field element from rational number.
AFPFRP Algebraic number field polynomial from rational polynomial.
AFUPSR Algebraic number field univariate polynomial, sign at a rational point.
AMUPBES Algebraic module univariate polynomial, binary rational evaluation of sign.
AMUPSR Algebraic module univariate polynomial, sign at a rational point.
DIRPREAD Distributive rational polynomial read.
DIRPWRITE Distributive rational polynomial write.
IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.
IPBREI Integral polynomial binary rational evaluation, integral polynomial result.
IPFRP Integral polynomial from rational polynomial.
IPSRP Integral polynomial similiar to rational polynomial.
IUPBEI Integral univariate polynomial binary rational evaluation, integer output.
IUPBES Integral univariate polynomial binary rational evaluation of sign.
IUPBRE Integral univariate polynomial binary rational evaluation.
RIB Rational interval bisection.
RIL Rational interval length.
RILC Rational interval length comparison.
RINEG Rational interval negation.
RINT Rational interval normalizing transformation.
RIPROD Rational interval product.

RIRNP Rational interval rational number product.
RIRNP Rational interval rational number product.
RISIGN Rational interval sign.
RISUM Rational interval sum.
RNABS Rational number absolute value.
RNBCR Rational number binary common representation.
RNCEIL Rational number, ceiling of.
RNCOMP Rational number comparison.
RNDEN Rational number denominator.
RNDIF Rational number difference.
RNDWRITE Rational number decimal write.
RNFCL2 Rational number floor and ceiling of logarithm, base 2.
RNFLOR Rational number, floor of.
RNINT Rational number from integer.
RNINV Rational number inverse.
RNMAX Rational number max.
RNMIN Rational number min.
RNNEG Rational number negative.
RNNUM Rational number numerator.
RNP2 Rational number power of 2.
RNPROD Rational number product.
RNQ Rational number quotient.
RNRAND Rational number, random.
RNREAD Rational number read.
RNRED Rational number reduction to lowest terms.
RNSIGN Rational number sign.
RNSUM Rational number sum.
RNWRITE Rational number write.
RPAFME Rational polynomial, algebraic number field multiple evaluation.
RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.
RPDIF Rational polynomial difference.
RPDMV Rational polynomial derivative, main variable.
RPDWRITE Rational Polynomial Distributive Write.
RPEMV Rational polynomial evaluation, main variable.
RPEXPREAD Rational polynomial expression read.
RPFACTREAD Rational polynomial factor read.
RPFIP Rational polynomial from integral polynomial.
RPIMV Rational polynomial integration, main variable.
RPMAIP Rational polynomial monic associate of integral polynomial.
RPNEG Rational polynomial negative.
RPPOWREAD Rational polynomial power read.
RPPROD Rational polynomial product.
RPQR Rational polynomial quotient and remainder.
RPREAD Rational polynomial read.
RPRNP Rational polynomial rational number product.
RPRNP Rational polynomial rational number product.
RPSUM Rational polynomial sum.
RPTERMREAD Rational polynomial term read.
RPWRITE Rational polynomial write.

RUPWRITE Rational univariate polynomial write.

read

AREAD Atom read.
CREAD Character read.
CREADB Character read.
DIIPREAD Distributive integral polynomial read.
DIRPREAD Distributive rational polynomial read.
GREAD Gamma-integer read.
IPEXPREAD Integral polynomial expression read.
IPEXPREADR Integral polynomial expression read, remove terminating character.
IPFACTREAD Integral polynomial factor read.
IPPOWREAD Integral polynomial power read.
IPREAD Integral polynomial read.
IPTERMREAD Integral polynomial term read.
IREAD Integer read.
LREAD List read.
OREAD Object read.
RNREAD Rational number read.
RPEXPREAD Rational polynomial expression read.
RPFACTREAD Rational polynomial factor read.
RPPOWREAD Rational polynomial power read.
RPREAD Rational polynomial read.
RPTERMREAD Rational polynomial term read.
VLREAD Variable list read.
VREAD Variable read.

real

AFPBRI Algebraic number field polynomial basis real root isolation.
AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.
AFPRII Algebraic number field polynomial real root isolation induction.
AFPRLS Algebraic number field polynomial real root list separation.
AFPRRI Algebraic number field polynomial relative real root isolation.
AFPRRS Algebraic number field polynomial real root separation.
AFUPBRI Algebraic number field univariate polynomial basis real root isolation.
AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.
AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.
AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.
AFUPRII Algebraic number field univariate polynomial real root isolation induction.
AFUPRLS Algebraic number field univariate polynomial real root list separation.
AFUPRRI Algebraic number field univariate polynomial relative real root isolation.
AFUPRRS Algebraic number field univariate polynomial real root separation.
AMUPMPR Algebraic module univariate polynomial minimal polynomial of

a real root.

AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

AMUPRLS Algebraic module univariate polynomial real root list separation.

AMUPRRS Algebraic module univariate polynomial real root separation.

IPLRRI Integral polynomial list real root isolation.

IPRCH Integral polynomial real root calculation, high precision.

IPRCHS Integral polynomial real root calculation, high-precision special.

IPRCN1 Integral polynomial real root calculation, 1 root.

IPRCNP Integral polynomial real root calculation, Newton method preparation.

IPRICL Integral polynomial real root isolation, Collins-Loos algorithm.

IPRIM Integral polynomial real root isolation, modified Uspensky method.

IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.

IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.

IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.

IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.

IPRRII Integral polynomial real root isolation induction.

IPRRLS Integral polynomial real root list separation.

IPRRRI Integral polynomial relative real root isolation.

IPRRS Integral polynomial real root separation.

IPSRM Integral polynomial strong real root isolation, modified Uspensky method.

IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

SFCFR Single-precision floating-point complex from real.

SFCRP Single-precision floating-point complex, real part.

SFRABS Single-precision floating-point real absolute value.

SFRDIF Single-precision floating-point real difference.

SFRLS Single-precision floating-point real number lower sum.

SFRNEG Single-precision floating-point real negation.

SFRPR Single-precision floating-point real product.

SFRQ Single-precision floating-point real quotient.

SFRSUM Single-precision floating-point real sum.

reciprocal

PRT Polynomial reciprocal transformation.

reduced

IPRPRS Integral polynomial reduced polynomial remainder sequence.

reduction

RNRED Rational number reduction to lowest terms.

VIERED Vector of integers, element reduction.

reductum

PRED Polynomial reductum.

RED Reductum 1.

RED2 Reductum 2.

RED3 Reductum 3.
RED4 Reductum 4.
REDI Reductum.
SRED Set reductum.

refinement

AFUPIIR Algebraic number field polynomial isolating interval refinement.
AMSIGNIR Algebraic module sign, interval refinement.
AMUPIIR Algebraic module polynomial isolating interval refinement.
AMUPVARIR Algebraic module univariate polynomial variations, interval refinement.
ISFPIR Integral squarefree polynomial isolating interval refinement.
IUPIIR Integral univariate polynomial isolating interval refinement.

relative

AFPRRI Algebraic number field polynomial relative real root isolation.
AFUPRRI Algebraic number field univariate polynomial relative real root isolation.
IPRRRI Integral polynomial relative real root isolation.

remainder

AFPQR Algebraic number field polynomial quotient and remainder.
DMUPNR Dense modular univariate polynomial natural remainder.
DQR Digit quotient and remainder.
IDQR Integer-digit quotient and remainder.
IDREM Integer-digit remainder.
IPCRA Integral polynomial chinese remainder algorithm.
IPPSR Integral polynomial pseudo-remainder.
IPQR Integral polynomial quotient and remainder.
IPRPRS Integral polynomial reduced polynomial remainder sequence.
IPSPRS Integral polynomial subresultant polynomial remainder sequence.
IQR Integer quotient and remainder.
IREM Integer remainder.
IUPSR Integral univariate polynomial semi-remainder.
MDCRA Modular digit chinese remainder algorithm.
MDLCRA Modular digit list chinese remainder algorithm.
MIDCRA Modular integer digit chinese remainder algorithm.
MIUPQR Modular integral univariate polynomial quotient and remainder.
MMPIQR Modular monic polynomial mod ideal quotient and remainder.
MPPSR Modular polynomial pseudo-remainder.
MPQR Modular polynomial quotient and remainder.
MPSPRS Modular polynomial subresultant polynomial remainder sequence.
QREM Quotient and remainder.
REM GAMMA-digit remainder.
RPQR Rational polynomial quotient and remainder.

remove

IPEXPREADR Integral polynomial expression read, remove terminating character.

represent

ANREPE Algebraic number represent element of a primitive extension.

representation

AFCR Algebraic number field element convert representation.
AFICR Algebraic number field element inverse convert representation.

AFPCR Algebraic number field polynomial convert representation.
AFPICR Algebraic number field polynomial inverse convert representation.
RNBCR Rational number binary common representation.

representatives

SDR System of distinct representatives.

residue

FRESL Fermat residue list.
FRLSM Fermat residue list, single modulus.

respect

MCPMV Matrix of coefficients of polynomials, with respect to main variable.

result

IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.
IPBREI Integral polynomial binary rational evaluation, integral polynomial result.

resultant

IPRES Integral polynomial resultant.
IUPRC Integral univariate polynomial resultant and cofactor.
MPRES Modular polynomial resultant.
MUPRC Modular univariate polynomial resultant and cofactor.
MUPRES Modular univariate polynomial resultant.

ring

PFBRE Polynomial From Base Ring Element.

root

AFPBRI Algebraic number field polynomial basis real root isolation.
AFPRCL Algebraic number field polynomial real root isolation, collins-loos algorithm.
AFPRII Algebraic number field polynomial real root isolation induction.
AFPRLS Algebraic number field polynomial real root list separation.
AFPRRI Algebraic number field polynomial relative real root isolation.
AFPRRS Algebraic number field polynomial real root separation.
AFUPBRI Algebraic number field univariate polynomial basis real root isolation.
AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.
AFUPRB Algebraic number field univariate polynomial root bound.
AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.
AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.
AFUPRII Algebraic number field univariate polynomial real root isolation induction.
AFUPRL Algebraic number field univariate polynomial, root of a linear polynomial.
AFUPRLS Algebraic number field univariate polynomial real root list separation.
AFUPRRI Algebraic number field univariate polynomial relative real root isolation.
AFUPRRS Algebraic number field univariate polynomial real root separation.
AMUPMPR Algebraic module univariate polynomial minimal polynomial of

a real root.

AMUPRBH Algebraic module univariate polynomial root bound and homothetic transformation.

AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.

AMUPRLS Algebraic module univariate polynomial real root list separation.

AMUPRRS Algebraic module univariate polynomial real root separation.

DSQRTF Digit square root function.

IPLRRI Integral polynomial list real root isolation.

IPRCH Integral polynomial real root calculation, high precision.

IPRCHS Integral polynomial real root calculation, high-precision special.

IPRCN1 Integral polynomial real root calculation, 1 root.

IPRCN1 Integral polynomial real root calculation, 1 root.

IPRCNP Integral polynomial real root calculation, Newton method preparation.

IPRICL Integral polynomial real root isolation, Collins-Loos algorithm.

IPRIM Integral polynomial real root isolation, modified Uspensky method.

IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.

IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.

IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.

IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.

IPRRII Integral polynomial real root isolation induction.

IPRRLS Integral polynomial real root list separation.

IPRRRI Integral polynomial relative real root isolation.

IPRRS Integral polynomial real root separation.

IPSRM Integral polynomial strong real root isolation, modified Uspensky method.

IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

IROOT Integer root.

ISQRT Integer square root.

IUPRB Integral univariate polynomial root bound.

IUPRLP Integral univariate polynomial, root of a linear polynomial.

rosser

LDSSBR Linear diophantine system solution, based on Rosser ideas.

rotation

LEROT List element rotation.

routine

main Default main routine.

saclib

BEGINSACLIB Begin SACLIB.

ENDSACLIB End saclib.

INFOSACLIB Write out usage information for SACLIB.

STATSACLIB Statistics of saclib.

scalar

VISPR Vector of integers scalar product.

search

ILPDS Integer large prime divisor search.

IMPDS Integer medium prime divisor search.

LSRCH List search.

VLSRCH Variable list search.

second

IPFSD Integral polynomial factorization, second derivative.

IPSFSD Integral squarefree factorization, second derivative.

SECOND Second.

segmentation

ISEG Integer segmentation.

selfridge

ISPT Integer selfridge primality test.

semi

IUPSR Integral univariate polynomial semi-remainder.

separation

AFPRLS Algebraic number field polynomial real root list separation.

AFPRRS Algebraic number field polynomial real root separation.

AFUPRLS Algebraic number field univariate polynomial real root list separation.

AFUPRRS Algebraic number field univariate polynomial real root separation.

AMUPRLS Algebraic module univariate polynomial real root list separation.

AMUPRRS Algebraic module univariate polynomial real root separation.

IPRRLS Integral polynomial real root list separation.

IPRRS Integral polynomial real root separation.

sequence

IPRPRS Integral polynomial reduced polynomial remainder sequence.

IPSPRS Integral polynomial subresultant polynomial remainder sequence.

MPSPRS Modular polynomial subresultant polynomial remainder sequence.

set

CSFPAR Characteristic set from partition.

CSINT Characteristic set intersection.

CSSUB Characteristic set subset.

CSUN Characteristic set union.

GCASET Garbage collected array set element.

IUPFDS Integral univariate polynomial factor degree set.

SDIFF Set difference.

SEQUAL Set equality.

SFCS Set from characteristic set.

SFCS Set from characteristic set.

SFIRST Set first element.

SINTER Set intersection.

SLELTI Set list element.

SRED Set reductum.

SUNION Set union.

USDIFF Unordered set difference.

USINT Unordered set intersection.

USUN Unordered set union.

shifted

ISSUM Integer shifted sum.

sign

AFSIGN Algebraic number field sign.

AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.

AFUPSR Algebraic number field univariate polynomial, sign at a rational point.

AMSIGN Algebraic module sign.

AMSIGNIR Algebraic module sign, interval refinement.

AMUPBES Algebraic module univariate polynomial, binary rational evaluation of sign.

AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.

AMUPSR Algebraic module univariate polynomial, sign at a rational point.

IPSCPP Integral polynomial sign, content, and primitive part.

IPSIGN Integral polynomial sign.

ISIGNF Integer sign function.

IUPBES Integral univariate polynomial binary rational evaluation of sign.

RISIGN Rational interval sign.

RNSIGN Rational number sign.

RPBLGS Rational polynomial base coefficients least common multiple, greatest common divisor, and sign.

SIGN Sign.

similar

AMPSAFP Algebraic module polynomial similar to algebraic field polynomial.

similiar

IPSRP Integral polynomial similiar to rational polynomial.

single

FRLSM Fermat residue list, single modulus.

MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.

SFCCON Single-precision floating-point complex conjugation.

SFCDIF Single-precision floating-point complex difference.

SFCFR Single-precision floating-point complex from real.

SFCIP Single-precision floating-point complex, imaginary part.

SFCMSQ Single-precision floating-point complex modulus squared.

SFCNEG Single-precision floating-point complex negation.

SFCPR Single-precision floating-point complex product.

SFCQ Single-precision floating-point complex quotient.

SFCRP Single-precision floating-point complex, real part.

SFCSUM Single-precision floating-point complex sum.

SFIFI Single-precision floating-point interval from integer.

SFRABS Single-precision floating-point real absolute value.

SFRDIF Single-precision floating-point real difference.
SFRLS Single-precision floating-point real number lower sum.
SFRNEG Single-precision floating-point real negation.
SFRPR Single-precision floating-point real product.
SFRQ Single-precision floating-point real quotient.
SFRSUM Single-precision floating-point real sum.

small

ISPD Integer small prime divisors.

solution

LDSMKB Linear diophantine system solution, modified Kannan and Bachem algorithm.
LDSSBR Linear diophantine system solution, based on Rosser ideas.
MIPISE Modular integral polynomial mod ideal, solution of equation.
MIUPSE Modular integral univariate polynomial, solution of equation.

sort

LBIBMS List of BETA-integers bubble-merge sort.
LBIBS List of BETA-integers bubble sort.
MICS Matrix of integers column sort.

space

MMDNSB Matrix of modular digits null-space basis.

special

IPRCHS Integral polynomial real root calculation, high-precision special.
MUPFS Modular univariate polynomial factorization, special.
PSDSV Polynomial special decomposition, specified variable.

specified

IPTR Integral polynomial translation, specified variable.
IPTR1 Integral polynomial translation by one, specified variable.
PDEGSV Polynomial degree, specified variable.
PSDSV Polynomial special decomposition, specified variable.

square

DSQRTF Digit square root function.
ISQRT Integer square root.

squared

SFCMSQ Single-precision floating-point complex modulus squared.

squarefree

AFUPGS Algebraic number field polynomial greatest squarefree divisior.
AFUPSF Algebraic number field univariate polynomial squarefree factorization.
AFUPSFN Algebraic number field univariate polynomial squarefree norm.
IPCSFB Integral polynomial coarsest squarefree basis.
IPFSFB Integral polynomial finest squarefree basis.
IPPGSD Integral polynomial primitive greatest squarefree divisor.
IPSF Integral polynomial squarefree factorization.
IPSFBA Integral polynomial squarefree basis augmentation.
IPSFSD Integral squarefree factorization, second derivative.
ISFPF Integral squarefree polynomial factorization.
ISFPIR Integral squarefree polynomial isolating interval refinement.
ISPSFB Integral squarefree polynomial squarefree basis.
ISPSFB Integral squarefree polynomial squarefree basis.
IUSFPF Integral univariate squarefree polynomial factorization.

MUPSFF Modular univariate polynomial squarefree factorization.

standard

IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.

IPSIFI Integral polynomial standard isolating interval from isolating interval.

IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

IUPVSI Integral univariate polynomial, variations for standard interval.

statistics

STATSACLIB Statistics of saclib.

stream

FILINE Flush the input stream line.

string

LFS List from String.

SWRITE String write.

strong

IPSRM Integral polynomial strong real root isolation, modified Uspensky method.

IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

strongly

AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

IPIIWS Integral polynomial isolating intervals weakly disjoint to strongly disjoint.

subresultant

IPPSC Integral polynomial principal subresultant coefficients.

IPSPRS Integral polynomial subresultant polynomial remainder sequence.

MPSPRS Modular polynomial subresultant polynomial remainder sequence.

subroutine

IPICS Integral polynomial integer content subroutine.

MPUCS Modular polynomial univariate content subroutine.

subset

CSSUB Characteristic set subset.

substitution

IPGSUB Integral polynomial general substitution.

IPSMV Integral polynomial substitution for main variable.

IPSUB Integral polynomial substitution.

IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.

suffix

SUFFIX Suffix.

sum

AFPSUM Algebraic number field polynomial sum.

AFSUM Algebraic number field element sum.

ANSUM Algebraic number sum.

DMPSUM Dense modular polynomial sum.

IBCPS Integer binomial coefficient partial sum.

IPSUM Integral polynomial sum.

IPSUMN Integral polynomial sum norm.
ISSUM Integer shifted sum.
ISUM Integer sum.
MDSUM Modular digit sum.
MIPSUM Modular integral polynomial sum.
MISUM Modular integer sum.
MPSUM Modular polynomial sum.
RISUM Rational interval sum.
RNSUM Rational number sum.
RPSUM Rational polynomial sum.
SFCSUM Single-precision floating-point complex sum.
SFRLS Single-precision floating-point real number lower sum.
SFRSUM Single-precision floating-point real sum.
VISUM Vector of integers sum.

sumset

PARTSS Partition sumset.

symmetric

MIPFSM Modular integral polynomial from symmetric modular.
SMFMI Symmetric modular from modular integer.
SMFMIP Symmetric modular from modular integral polynomial.

system

GCSI Garbage collection, system independent.
LDSMKB Linear diophantine system solution, modified Kannan and Bachem algorithm.
LDSSBR Linear diophantine system solution, based on Rosser ideas.
SDR System of distinct representatives.

term

DIPINS Distributive polynomial, insert term.
IPTERMREAD Integral polynomial term read.
RPTERMREAD Rational polynomial term read.

terminating

IPEXPREADR Integral polynomial expression read, remove terminating character.

terms

RNRED Rational number reduction to lowest terms.

test

ISATOM Test for atom.
ISGCA Test for GCA handle.
ISLIST Test for non-empty list.
ISNIL Test for empty list.
ISOBJECT Test for object.
ISPT Integer selfridge primality test.
ISZERO Test for zero.
MEMBER Membership test.
PUNT Polynomial univariate test.

third

THIRD Third.

time

ACLOCK Clock minus garbage collection time.

trailing

PTBCF Polynomial trailing base coefficient.

transformation

AMUPBHT Algebraic module univariate polynomial binary homothetic transformation.

AMUPNT Algebraic module univariate polynomial negative transformation.

AMUPRBH Algebraic module univariate polynomial root bound and homothetic transformation.

IPBHT Integral polynomial binary homothetic transformation.

IPBHTLV Integral polynomial binary homothetic transformation, leading variable.

IPBHTMV Integral polynomial binary homothetic transformation, main variable.

IPNT Integral polynomial negative transformation.

IPVCHT Integral polynomial variations after circle to half-plane transformation.

IUPBHT Integral univariate polynomial binary homothetic transformation.

IUPCHT Integral univariate polynomial circle to half-plane transformation.

IUPIHT Integral univariate polynomial integer homothetic transformation.

IUPNT Integral univariate polynomial negative transformation.

MINNCT Matrix of integers, non-negative column transformation.

PRT Polynomial reciprocal transformation.

RINT Rational interval normalizing transformation.

VIUT Vector of integers, unimodular transformation.

translation

AMUPTR Algebraic module univariate polynomial translation.

AMUPTR1 Algebraic module univariate polynomial translation by 1.

IPTR Integral polynomial translation, specified variable.

IPTR1 Integral polynomial translation by one, specified variable.

IPTR1LV Integral polynomial translation by one, leading variable.

IPTRAN Integral polynomial translation.

IPTRLV Integral polynomial translation, leading variable.

IPTRMV Integral polynomial translation, main variable.

IUPTR Integral univariate polynomial translation.

IUPTR1 Integral univariate polynomial translation by 1.

transpose

PTMV Polynomial transpose main variables. PTV Polynomial transpose variables.

PTMV Polynomial transpose main variables. PTV Polynomial transpose variables.

truncated

IPTPR Integral polynomial truncated product.

IUPTPR Integral univariate polynomial truncated product.

truncation

IPTRUN Integral polynomial truncation.

ITRUNC Integer truncation.

unimodular

VIUT Vector of integers, unimodular transformation.

union

CSUN Characteristic set union.

SUNION Set union.

USUN Unordered set union.

unit

IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.

univariate

AFUPBRI Algebraic number field univariate polynomial basis real root isolation.

AFUPFAC Algebraic number field univariate polynomial factorization.

AFUPGC Algebraic number field univariate polynomial greatest common divisor and cofactors.

AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AFUPMPR Algebraic number field univariate polynomial minimal polynomial of a real root.

AFUPRB Algebraic number field univariate polynomial root bound.

AFUPRICL Algebraic number field univariate polynomial real root isolation, Collins-Loos algorithm.

AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.

AFUPRII Algebraic number field univariate polynomial real root isolation induction.

AFUPRL Algebraic number field univariate polynomial, root of a linear polynomial.

AFUPRLS Algebraic number field univariate polynomial real root list separation.

AFUPRRI Algebraic number field univariate polynomial relative real root isolation.

AFUPRRS Algebraic number field univariate polynomial real root separation.

AFUPSF Algebraic number field univariate polynomial squarefree factorization.

AFUPSFN Algebraic number field univariate polynomial squarefree norm.

AFUPSR Algebraic number field univariate polynomial, sign at a rational point.

AFUPVAR Algebraic number field univariate polynomial variations.

AFUPWRITE Algebraic number field univariate polynomial write.

AMUPBES Algebraic module univariate polynomial, binary rational evaluation of sign.

AMUPBHT Algebraic module univariate polynomial binary homothetic transformation.

AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AMUPMPR Algebraic module univariate polynomial minimal polynomial of a real root.

AMUPNT Algebraic module univariate polynomial negative transformation.

AMUPRBH Algebraic module univariate polynomial root bound and homothetic transformation.

AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.
AMUPRLS Algebraic module univariate polynomial real root list separation.
AMUPRRS Algebraic module univariate polynomial real root separation.
AMUPSR Algebraic module univariate polynomial, sign at a rational point.
AMUPTR Algebraic module univariate polynomial translation.
AMUPTR1 Algebraic module univariate polynomial translation by 1.
AMUPVARIR Algebraic module univariate polynomial variations, interval refinement.
DMUPNR Dense modular univariate polynomial natural remainder.
IUPBEI Integral univariate polynomial binary rational evaluation, integer output.
IUPBES Integral univariate polynomial binary rational evaluation of sign.
IUPBHT Integral univariate polynomial binary homothetic transformation.
IUPBRE Integral univariate polynomial binary rational evaluation.
IUPCHT Integral univariate polynomial circle to half-plane transformation.
IUPFAC Integral univariate polynomial factorization.
IUPFDS Integral univariate polynomial factor degree set.
IUPIHT Integral univariate polynomial integer homothetic transformation.
IUPIIR Integral univariate polynomial isolating interval refinement.
IUPNT Integral univariate polynomial negative transformation.
IUPQH Integral univariate polynomial quadratic hensel lemma.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
IUPQHL Integral univariate polynomial quadratic hensel lemma, list. IUPQS Integral univariate polynomial quotient substitution.
IUPRB Integral univariate polynomial root bound.
IUPRC Integral univariate polynomial resultant and cofactor.
IUPRLP Integral univariate polynomial, root of a linear polynomial.
IUPSR Integral univariate polynomial semi-remainder.
IUPTPR Integral univariate polynomial truncated product.
IUPTR Integral univariate polynomial translation.
IUPTR1 Integral univariate polynomial translation by 1.
IUPVAR Integral univariate polynomial variations.
IUPVOI Integral univariate polynomial, variations for open interval.
IUPVSI Integral univariate polynomial, variations for standard interval.
IUPWRITE Integral univariate polynomial write.
IUSFPF Integral univariate squarefree polynomial factorization.
MIUPQR Modular integral univariate polynomial quotient and remainder.
MIUPSE Modular integral univariate polynomial, solution of equation.
MPUC Modular polynomial univariate content.
MPUCPP Modular polynomial univariate content and primitive part.
MPUCS Modular polynomial univariate content subroutine.
MPUP Modular polynomial univariate product.
MPUPP Modular polynomial univariate primitive part.
MPUQ Modular polynomial univariate quotient.
MUPBQP Modular univariate polynomial berlekamp Q polynomials construction.
MUPDDF Modular univariate polynomial distinct degree factorization.
MUPDER Modular univariate polynomial derivative.

MUPEGC Modular univariate polynomial extended greatest common divisor.
MUPFBL Modular univariate polynomial factorization-berlekamp algorithm.
MUPFS Modular univariate polynomial factorization, special.
MUPGCD Modular univariate polynomial greatest common divisor.
MUPHEG Modular univariate polynomial half-extended greatest common divisor.
MUPRAN Modular univariate polynomial, random.
MUPRC Modular univariate polynomial resultant and cofactor.
MUPRES Modular univariate polynomial resultant.
MUPSFF Modular univariate polynomial squarefree factorization.
PUFP Polynomial, univariate, from polynomial.
PUNT Polynomial univariate test.
RUPWRITE Rational univariate polynomial write.

unordered

USDIFF Unordered set difference.
USINT Unordered set intersection.
USUN Unordered set union.

usage

INFOSACLIB Write out usage information for SACLIB.

uspensky

IPRIM Integral polynomial real root isolation, modified Uspensky method.
IPRIMO Integral polynomial real root isolation, modified Uspensky method, open interval.
IPRIMS Integral polynomial real root isolation, modified Uspensky method, standard interval.
IPRIMU Integral polynomial real root isolation, modified Uspensky method, unit interval.
IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.
IPSRM Integral polynomial strong real root isolation, modified Uspensky method.
IPSRMS Integral polynomial strong real root isolation, modified Uspensky method, standard interval.

value

ABS Absolute value.
IABSF Integer absolute value function.
IPABS Integral polynomial absolute value.
RNABS Rational number absolute value.
SFRABS Single-precision floating-point real absolute value.

variable

AFPCMV Algebraic number field polynomial composition in main variable.
AFPDMV Algebraic number field polynomial derivative, main variable.
AFPEMV Algebraic number field polynomial evaluation of main variable.
AMPDMV Algebraic module polynomial derivative, main variable.
GCGLOBAL Declare a global variable to the Garbage Collector.
IPBEILV Integral polynomial binary rational evaluation, integral polynomial result, leading variable.
IPBHTLV Integral polynomial binary homothetic transformation, leading variable.
IPBHTMV Integral polynomial binary homothetic transformation, main variable.

IPDMV Integral polynomial derivative, main variable.
IPEMV Integral polynomial evaluation of main variable.
IPHDMV Integral polynomial higher derivative, main variable.
IPSMV Integral polynomial substitution for main variable.
IPTR Integral polynomial translation, specified variable.
IPTR1 Integral polynomial translation by one, specified variable.
IPTR1LV Integral polynomial translation by one, leading variable.
IPTRLV Integral polynomial translation, leading variable.
IPTRMV Integral polynomial translation, main variable.
MCPMV Matrix of coefficients of polynomials, with respect to main variable.
MPEMV Modular polynomial evaluation of main variable.
MPIQHS Modular polynomial mod ideal, quadratic Hensel lemma on a single variable.
PDEGSV Polynomial degree, specified variable.
PDPV Polynomial division by power of variable.
PMPMV Polynomial multiplication by power of main variable.
PSDSV Polynomial special decomposition, specified variable.
RPDMV Rational polynomial derivative, main variable.
RPEMV Rational polynomial evaluation, main variable.
RPIMV Rational polynomial integration, main variable.
VLREAD Variable list read.
VLSRCH Variable list search.
VLWRITE Variable list write.
VREAD Variable read.
VWRITE Variable write.

variables

PCONST Polynomial constant. PCPV Polynomial cyclic permutation of variables.
PFDP Polynomial from dense polynomial. PICPV Polynomial inverse cyclic permutation of variables.
PINV Polynomial introduction of new variables.
PPERMV Polynomial permutation of variables.
PTMV Polynomial transpose main variables. PTV Polynomial transpose variables.
PTMV Polynomial transpose main variables. PTV Polynomial transpose variables.

variation

AFUPRICS Algebraic univariate polynomial real root isolation, coefficient sign variation method.
AMUPRICS Algebraic module univariate polynomial real root isolation, coefficient sign variation method.
AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.
AMUPRINCS Algebraic module univariate polynomial root isolation, normalized coefficient sign variation method.

variations

AFUPVAR Algebraic number field univariate polynomial variations.
AMUPVARIR Algebraic module univariate polynomial variations, interval refinement.
IPVCHT Integral polynomial variations after circle to half-plane transforma-

tion.

IUPVAR Integral univariate polynomial variations.

IUPVOI Integral univariate polynomial, variations for open interval.

IUPVSI Integral univariate polynomial, variations for standard interval.

vector

DVCMP Degree vector comparison.

PDEGV Polynomial degree vector.

VCOMP Vector comparison.

VIAZ Vector of integers, adjoin zeros.

VIDIF Vector of integers difference.

VIERED Vector of integers, element reduction.

VILCOM Vector of integers linear combination.

VINEG Vector of integers negation.

VISPR Vector of integers scalar product.

VISUM Vector of integers sum.

VIUT Vector of integers, unimodular transformation.

VMAX Vector maximum.

VMIN Vector minimum.

VMPIP Vector of modular polynomial inner product.

weakly

AFUPIIWS Algebraic number field univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AMUPIIWS Algebraic module univariate polynomial isolating intervals weakly disjoint to strongly disjoint.

AMUPRICSW Algebraic module univariate polynomial real root isolation, coefficient sign variation method, weakly disjoint intervals.

IPIIWS Integral polynomial isolating intervals weakly disjoint to strongly disjoint.

IPRIMW Integral polynomial real root isolation, modified Uspensky method, weakly disjoint intervals.

with

MCPMV Matrix of coefficients of polynomials, with respect to main variable.

write

AFDWRITE Algebraic number field, decimal write.

AFPWRITE Algebraic number field polynomial write.

AFUPWRITE Algebraic number field univariate polynomial write.

AFWRITE Algebraic field element write.

ANDWRITE Algebraic number decimal write.

AWRITE Atom write.

CWRITE Character write.

DIIPWRITE Distributive integral polynomial write.

DIRPWRITE Distributive rational polynomial write.

GWRITE Gamma-integer write.

ILWRITE Integer list write.

INFOSACLIB Write out usage information for SACLIB.

IPDWRITE Integral Polynomial Distributive Write.

IPWRITE Integral polynomial write.

IUPWRITE Integral univariate polynomial write.

IWRITE Integer write.

LWRITE List write.

OWRITE Object write.
RNDWRITE Rational number decimal write.
RNWRITE Rational number write.
RPDWRITE Rational Polynomial Distributive Write.
RPWRITE Rational polynomial write.
RUPWRITE Rational univariate polynomial write.
SWRITE String write.
VLWRITE Variable list write.
VWRITE Variable write.

zero

ISZERO Test for zero.

zeros

VIAZ Vector of integers, adjoin zeros.

[**algebraic**

ANPEDE [Algebraic number primitive element for a double extension.