```
> restart :
> with(LinearAlgebra)
```

[&x, Add, Adjoint, BackwardSubstitute, BandMatrix, Basis, BezoutMatrix, BidiagonalForm, BilinearForm, CARE, CharacteristicMatrix, CharacteristicPolynomial, Column, ColumnDimension, ColumnOperation, ColumnSpace, CompanionMatrix, ConditionNumber, ConstantMatrix, ConstantVector, Copy, CreatePermutation, CrossProduct, DARE, DeleteColumn, DeleteRow, Determinant, Diagonal, DiagonalMatrix, Dimension, Dimensions, DotProduct, EigenConditionNumbers, Eigenvalues, Eigenvectors, Equal, ForwardSubstitute, FrobeniusForm, GaussianElimination, GenerateEquations, GenerateMatrix, Generic, GetResultDataType, GetResultShape, GivensRotationMatrix, GramSchmidt, HankelMatrix, HermiteForm, HermitianTranspose, HessenbergForm, HilbertMatrix, HouseholderMatrix, IdentityMatrix, IntersectionBasis, IsDefinite, IsOrthogonal, IsSimilar, IsUnitary, JordanBlockMatrix, JordanForm, KroneckerProduct, LA_Main, LUDecomposition, LeastSquares, LinearSolve, LyapunovSolve, Map, Map2, MatrixAdd, MatrixExponential, MatrixFunction, MatrixInverse, MatrixMatrixMultiply, MatrixNorm, MatrixPower, MatrixScalarMultiply, MatrixVectorMultiply, MinimalPolynomial, Minor, Modular, Multiply, NoUserValue, Norm, Normalize, NullSpace, OuterProductMatrix, Permanent, Pivot, PopovForm, QRDecomposition, RandomMatrix, RandomVector, Rank, RationalCanonicalForm, ReducedRowEchelonForm, Row, RowDimension, RowOperation, RowSpace, ScalarMatrix, ScalarMultiply, ScalarVector, SchurForm, SingularValues, SmithForm, StronglyConnectedBlocks, SubMatrix, SubVector, SumBasis, SylvesterMatrix, SylvesterSolve, ToeplitzMatrix, Trace, Transpose, TridiagonalForm, UnitVector, VandermondeMatrix, VectorAdd, VectorAngle, VectorMatrixMultiply, VectorNorm, VectorScalarMultiply, ZeroMatrix, ZeroVector, Zip] **(1)**

```
> P := Matrix([[p00, p01], [p01, p11]]);
```

$$P := \begin{bmatrix} p00 & p01 \\ p01 & p11 \end{bmatrix} \quad \textbf{(2)}$$

```
>
> R := Matrix([[s, t], [t, u]]);
```

$$R := \begin{bmatrix} s & t \\ t & u \end{bmatrix} \quad \textbf{(3)}$$

```
>
> I1 := IdentityMatrix(2);
```

$$I1 := \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \quad \textbf{(4)}$$

```
> Lambda := Matrix([[a, b], [-b, a]]);
```

$$\Lambda := \begin{bmatrix} a & b \\ -b & a \end{bmatrix} \quad \textbf{(5)}$$

```
> A := MatrixMatrixMultiply(P, (Lambda + omega·I1)) + MatrixMatrixMultiply((omega·I1
    + Transpose(Lambda)), P) − MatrixMatrixMultiply(P, MatrixMatrixMultiply(R, P))
```

(6)

$$A := [[2\,p00\,(a+\omega) - 2\,p01\,b - p00\,(s\,p00 + t\,p01) - p01\,(t\,p00 + u\,p01), p00\,b + 2\,p01\,(a+\omega) - p11\,b - p00\,(s\,p01 + t\,p11) - p01\,(t\,p01 + u\,p11)], [p00\,b + 2\,p01\,(a+\omega) - p11\,b - p01\,(s\,p00 + t\,p01) - p11\,(t\,p00 + u\,p01), 2\,p01\,b + 2\,p11\,(a+\omega) - p01\,(s\,p01 + t\,p11) - p11\,(t\,p01 + u\,p11)]] \tag{6}$$

> $A := subs(a + \mathrm{omega} = a, A);$

$$A := [[2\,p00\,a - 2\,p01\,b - p00\,(s\,p00 + t\,p01) - p01\,(t\,p00 + u\,p01), p00\,b + 2\,p01\,a - p11\,b - p00\,(s\,p01 + t\,p11) - p01\,(t\,p01 + u\,p11)], [p00\,b + 2\,p01\,a - p11\,b - p01\,(s\,p00 + t\,p01) - p11\,(t\,p00 + u\,p01), 2\,p01\,b + 2\,p11\,a - p01\,(s\,p01 + t\,p11) - p11\,(t\,p01 + u\,p11)]] \tag{7}$$

> $solve(\{2\,p00\,a - 2\,p01\,b - p00\,(s\,p00 + t\,p01) - p01\,(t\,p00 + u\,p01) = 0, p00\,b + 2\,p01\,a - p11\,b - p00\,(s\,p01 + t\,p11) - p01\,(t\,p01 + u\,p11) = 0, 2\,p01\,b + 2\,p11\,a - p01\,(s\,p01 + t\,p11) - p11\,(t\,p01 + u\,p11) = 0\}, \{p00, p01, p11\})$

$$\{p00 = 0, p01 = 0, p11 = 0\}, \left\{p00 = \frac{4\,(2\,u\,a^2 + 2\,a\,b\,t + s\,b^2 + u\,b^2)\,a}{b^2\,s^2 + 4\,s\,u\,a^2 + 2\,b^2\,u\,s + b^2\,u^2 - 4\,t^2\,a^2}, p01 = -\frac{4\,a^2\,(s\,b + 2\,a\,t - b\,u)}{b^2\,s^2 + 4\,s\,u\,a^2 + 2\,b^2\,u\,s + b^2\,u^2 - 4\,t^2\,a^2}, p11 = \frac{4\,(2\,s\,a^2 - 2\,a\,b\,t + s\,b^2 + u\,b^2)\,a}{b^2\,s^2 + 4\,s\,u\,a^2 + 2\,b^2\,u\,s + b^2\,u^2 - 4\,t^2\,a^2}\right\}, \left\{p00 = (-8\,b^2\,s^3\,u\,a^2 + 16\,b^2\,s^2\,t^2\,a^2 + 12\,s^2\,u^2\,a^2\,b^2 - 8\,s\,u^3\,a^2\,b^2 - 16\,s\,u\,a^4\,t^2 + 16\,b^2\,u^2\,t^2\,a^2 - 4\,b^4\,s^2\,u^2 + 16\,s^2\,u^2\,a^4 - 32\,b^2\,u\,s\,t^2\,a^2 + 2\,b^4\,s^4 + 2\,b^4\,u^4 + 32\,t^4\,a^4 - 16\,a^3\,u^2\,t\,b\,s + 16\,a^3\,b\,s^2\,t\,u + 16\,a\,b^3\,t\,s^2\,u - 16\,a\,b^3\,t\,u^2\,s + 2\,a^2\,b^2\,s^4 - 16\,u^3\,b^3\,a\,t + 16\,s^3\,b^3\,a\,t + 24\,a^4\,s^2\,t^2 - 8\,s^3\,a^4\,u + 36\,RootOf((4\,t^2 - 2\,u\,s + s^2 + u^2)\,\_Z^2 + (-4\,s\,b - 8\,a\,t + 4\,b\,u)\,\_Z + 4\,a^2 + 4\,b^2)\,b^2\,t\,u^2\,s^2\,a - 12\,RootOf((4\,t^2 - 2\,u\,s + s^2 + u^2)\,\_Z^2 + (-4\,s\,b - 8\,a\,t + 4\,b\,u)\,\_Z + 4\,a^2 + 4\,b^2)\,a^2\,t^2\,s^2\,b\,u + 12\,RootOf((4\,t^2 - 2\,u\,s + s^2 + u^2)\,\_Z^2 + (-4\,s\,b - 8\,a\,t + 4\,b\,u)\,\_Z + 4\,a^2 + 4\,b^2)\,a^2\,u^2\,s\,t^2\,b + 48\,RootOf((4\,t^2 - 2\,u\,s + s^2 + u^2)\,\_Z^2 + (-4\,s\,b - 8\,a\,t + 4\,b\,u)\,\_Z + 4\,a^2 + 4\,b^2)\,b^2\,t^3\,a\,s\,u - 32\,RootOf((4\,t^2 - 2\,u\,s + s^2 + u^2)\,\_Z^2 + (-4\,s\,b - 8\,a\,t + 4\,b\,u)\,\_Z + 4\,a^2 + 4\,b^2)\,a^3\,t^5 - s^5\,RootOf((4\,t^2 - 2\,u\,s + s^2 + u^2)\,\_Z^2 + (-4\,s\,b - 8\,a\,t + 4\,b\,u)\,\_Z + 4\,a^2 + 4\,b^2)\,b^3 + u^5\,RootOf((4\,t^2 - 2\,u\,s \tag{8}$$

$$+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ b^3+12\ RootOf((4\,t^2-2\,u\,s$$

$$+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ t^2\,b^3\,u\,s^2-12\ RootOf((4\,t^2$$

$$-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ t^2\,b^3\,u^2\,s$$

$$-16\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2$$

$$+4\,b^2)\ a^2\,t^4\,s\,b+16\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z$$

$$+4\,a^2+4\,b^2)\ a^2\,u\,b\,t^4-44\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t$$

$$+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^2\,t^2\,s^3\,b+44\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b$$

$$-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^2\,u^3\,t^2\,b+16\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+($$

$$-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^3\,t^3\,s\,u-24\ RootOf((4\,t^2-2\,u\,s+s^2$$

$$+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^3\,t\,u^2\,s^2+8\ RootOf((4\,t^2-2\,u\,s$$

$$+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^3\,t\,u^3\,s+8\ RootOf((4\,t^2$$

$$-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^3\,t\,s^3\,u$$

$$+24\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2$$

$$+4\,b^2)\ b^2\,t^3\,a\,u^2+24\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z$$

$$+4\,a^2+4\,b^2)\ b^2\,t^3\,s^2\,a-18\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t$$

$$+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ b^2\,t\,u^4\,a+2\,u\,s^4\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+($$

$$-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^2\,b-2\,u^4\,s\ RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2$$

$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^2\,b-16\,u^2\,s^3\ RootOf((4\,t^2-2\,u\,s+s^2$$

$$+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^2\,b+16\,u^3\,s^2\,RootOf((4\,t^2$$

$$-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^2\,b$$

$$-18\,s^4\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2$$

$$+4\,b^2)\ b^2\,a\,t+12\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z$$

$$+4\,a^2+4\,b^2)\ t^2\,s^3\,b^3-12\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t$$

$$+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ u^3\,b^3\,t^2-24\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b$$

$$-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^3\,t^3\,u^2-24\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+($$

$$-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^3\,t^3\,s^2+4\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2$$

$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^3\,t\,u^4-u^4\,s\,RootOf((4\,t^2-2\,u\,s+s^2$$

$$+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ b^3+u\,s^4\,RootOf((4\,t^2-2\,u\,s$$

$$+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ b^3+2\,u^2\,s^3\,RootOf((4\,t^2$$

$$-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ b^3$$

$$-2\,u^3\,s^2\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2$$

$$+4\,b^2)\ b^3+2\,s^5\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\ \_Z$$

$$+4\,a^2+4\,b^2)\ a^2\,b+4\,s^4\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b-8\,a\,t$$

$$+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^3\,t-2\,u^5\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\ \_Z^2+(-4\,s\,b$$

$$-8\,a\,t+4\,b\,u)\ \_Z+4\,a^2+4\,b^2)\ a^2\,b+16\,s^3\,b\,a^3\,t-8\,t^2\,b^4\,u^2-8\,t^2\,b^4\,s^2+2\,u^4\,b^2\,a^2$$

$$-16\,u^3\,b\,a^3\,t-16\,s\,u\,b^4\,t^2+24\,a^4\,t^2\,u^2+32\,a^2\,b^2\,t^4-8\,s\,a^4\,u^3)\Big/((4\,t^2-2\,u\,s+s^2$$

$$+u^2)\ (4\,b^3\,t\,u\,s+2\,b^3\,t\,s^2+2\,b^3\,t\,u^2-8\,t^2\,u\,a\,b\,s\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2$$

$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)+2\,t\,s^2\,u\,a^2\,RootOf((4\,t^2-2\,u\,s+s^2$$

$$+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)-4\,t^2\,a\,s^2\,b\,RootOf((4\,t^2-2\,u\,s$$

$$+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)-2\,u^2\,s^2\,a\,b\,RootOf((4\,t^2$$

$$-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)-2\,RootOf((4\,t^2$$

$$-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t\,s^2\,b^2\,u$$

$$+2\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2$$

$$+4\,b^2)\,u^2\,b^2\,t\,s-2\,u^2\,t\,a^2\,s\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t$$

$$+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)-4\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t$$

$$+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t^2\,a\,u^2\,b+s^4\,a\,b\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+($$

$$-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)+2\,s^3\,t\,a^2\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2$$

$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)-2\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+($$

$$-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,s^3\,t\,b^2+2\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2$$

$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^3\,b^2\,t+RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2$$

$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^4\,a\,b-2\,u^3\,a^2\,RootOf((4\,t^2-2\,u\,s+s^2$$

$$+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t-8\,t^3\,a^2\,b-s^3\,a\,b^2+u^3\,a\,b^2$$

$$-u\,s^2\,a\,b^2+u^2\,s\,a\,b^2+8\,t\,s\,u\,a^2\,b-4\,t^2\,a^3\,u-4\,s^2\,u\,a^3+4\,s\,a^3\,u^2+4\,s\,t^2\,a^3)),p01$$

$$=RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2),p11$$

$$=-(4\,u\,a\,b^2\,t-2\,b^3\,u^2+2\,b^3\,s^2+2\,s^2\,a^2\,b+4\,a^3\,u\,t+4\,s\,a^3\,t-4\,RootOf((4\,t^2$$

$$-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,a\,u\,t\,s\,b-2\,a^2\,u^2\,b$$
$$+4\,b^2\,s\,t\,a+10\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2$$
$$+4\,b^2)\,a\,u^2\,t\,b-6\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z$$
$$+4\,a^2+4\,b^2)\,b\,s^2\,a\,t+2\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t$$
$$+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^3\,a^2-RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t$$
$$+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^3\,b^2-RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t$$
$$+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,b^2\,s^3+4\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b$$
$$-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,b^2\,t^2\,u+4\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+($$
$$-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,s\,b^2\,t^2+RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+($$
$$-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,b^2\,s^2\,u-8\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2$$
$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,s\,t^2\,a^2+RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2$$
$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^2\,b^2\,s+8\,RootOf((4\,t^2-2\,u\,s+s^2$$
$$+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t^3\,a\,b-4\,RootOf((4\,t^2-2\,u\,s$$
$$+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^2\,s\,a^2+2\,RootOf((4\,t^2$$
$$-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,s^2\,u\,a^2)\Big/(8\,t^3\,a^2$$
$$-4\,t\,s\,u\,a^2+4\,t^2\,a\,s\,b-4\,t^2\,u\,a\,b-3\,u\,s^2\,a\,b+3\,u^2\,s\,a\,b+RootOf((4\,t^2-2\,u\,s+s^2$$
$$+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t\,s^2\,b\,u+RootOf((4\,t^2-2\,u\,s$$
$$+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^2\,b\,t\,s+8\,RootOf((4\,t^2$$
$$-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t^2\,a\,s\,u+s^3\,a\,b$$
$$+2\,s^2\,t\,a^2-u^3\,a\,b+2\,u^2\,t\,a^2-4\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t$$
$$+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t^3\,s\,b-4\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b$$
$$-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u\,b\,t^3-6\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2+($$
$$-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t^2\,a\,u^2-3\,RootOf((4\,t^2-2\,u\,s+s^2+u^2)\,\_Z^2$$
$$+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^2\,s^2\,a+3\,RootOf((4\,t^2-2\,u\,s+s^2$$
$$+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^3\,s\,a+RootOf((4\,t^2-2\,u\,s+s^2$$
$$+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,s^3\,a\,u-RootOf((4\,t^2-2\,u\,s+s^2$$
$$+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,s^3\,t\,b-2\,RootOf((4\,t^2-2\,u\,s$$
$$+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,s^2\,t^2\,a-RootOf((4\,t^2-2\,u\,s$$
$$+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^3\,b\,t-8\,RootOf((4\,t^2$$
$$-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,t^4\,a-RootOf((4\,t^2$$
$$-2\,u\,s+s^2+u^2)\,\_Z^2+(-4\,s\,b-8\,a\,t+4\,b\,u)\,\_Z+4\,a^2+4\,b^2)\,u^4\,a)\}$$

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