

?- {X1>=0,X2>=0,X3>=0,X4>=0,Max=4*X1-2*X2+7*X3-X4,X1+5*X3=<10,X1+X2-X3=<1,6*X1-5*X2=<0,
-X1+2*X3-2*X4=<3},maximize(Max).
X1 = 5 rdiv 4, X2 = 3 rdiv 2, X3 = 7 rdiv 4, X4 = 0,
Max = 57 rdiv 4. 14,25

?- {X1>=0,X2>=0,X3>=0,X4>=0,Max=4*X1-2*X2+7*X3-X4,X1+5*X3=<10,X1+X2-X3=<1,6*X1-5*X2=<0,
-X1+2*X3-2*X4=<3,X1=<1},maximize(Max).
X1 = 1, X2 = 6 rdiv 5, X3 = 9 rdiv 5, X4 = 0,
Max = 71 rdiv 5. 14,2

?- {X1>=0,X2>=0,X3>=0,X4>=0,Max=4*X1-2*X2+7*X3-X4,X1+5*X3=<10,X1+X2-X3=<1,6*X1-5*X2=<0,
-X1+2*X3-2*X4=<3,X1>=2},maximize(Max).
false.

?- {X1>=0,X2>=0,X3>=0,X4>=0,Max=4*X1-2*X2+7*X3-X4,X1+5*X3=<10,X1+X2-X3=<1,6*X1-5*X2=<0,
-X1+2*X3-2*X4=<3,X1=<1,X2=<1},maximize(Max).
X1 = 5 rdiv 6, X2 = 1, X3 = 11 rdiv 6, X4 = 0,
Max = 85 rdiv 6. 14,17

?- {X1>=0,X2>=0,X3>=0,X4>=0,Max=4*X1-2*X2+7*X3-X4,X1+5*X3=<10,X1+X2-X3=<1,6*X1-5*X2=<0,
-X1+2*X3-2*X4=<3,X1=<1,X2>=2},maximize(Max).
X1 = 5 rdiv 6, X2 = 2, X3 = 11 rdiv 6, X4 = 0,
Max = 73 rdiv 6. 12,17

?- {X1>=0,X2>=0,X3>=0,X4>=0,Max=4*X1-2*X2+7*X3-X4,X1+5*X3=<10,X1+X2-X3=<1,6*X1-5*X2=<0,
-X1+2*X3-2*X4=<3,X1=<1,X2=<1,X1=<0},maximize(Max).
X1 = X2, X2 = 0, X3 = 2, X4 = 1 rdiv 2,
Max = 27 rdiv 2. 13,5

?- {X1>=0,X2>=0,X3>=0,X4>=0,Max=4*X1-2*X2+7*X3-X4,X1+5*X3=<10,X1+X2-X3=<1,6*X1-5*X2=<0,
-X1+2*X3-2*X4=<3,X1=<1,X2>=2,X1>=1},maximize(Max).
false.

?- {X1>=0,X2>=0,X3>=0,X4>=0,Max=4*X1-2*X2+7*X3-X4,X1+5*X3=<10,X1+X2-X3=<1,6*X1-5*X2=<0,
-X1+2*X3-2*X4=<3},bb_inf([X1,X2,X3],-Max,L,M).
L = -27 rdiv 2,
M = [0, 0, 2],
{...}