



Blocks list : 28

Lines list : 37

AMPL commands :

```
reset;
option solver bonmin;
model expinlk.mod;
data direct_form2_5_constrains.dat;
solve;
display _ampl_time > width.sol;
display _total_solve_time > width.sol;
display Wx > width.sol;
display Wy > width.sol;
```

Z matrix :

```
[[ 1. 11. 9. 3. 2. 7. 1.]
 [ 0. 0. 1. 0. 0. 0. 0.]
 [ 0. 0. 0. 0. 0. 1. 0.]
 [ 1. 0. 0. 0. 0. 0. 0.]
 [ 0. 0. 0. 1. 0. 0. 0.]
 [ 0. 0. 0. 0. 1. 0. 0.]
 [ 5. 12. 10. 4. 6. 8. 0.]]
```

Do variables width optimisation

ampl\_time = 0.002999

total\_solve\_time = 3.44347

Optimization saved to : width.sol

Generate list of oSoP

Var\_W = [15, 11, 12, 14, 11, 12, 17]