



Remember

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| 1. SETS | Structures consisting of indices or names |
| 2. DATA | SCALARS (zero-dimensional), PARAMETERS (one-dimensional), and TABLES (multi-dimensional)
Determination of values of input parameters |
| 3. VARIABLES | Variables or arrays of variables
Declaration with assigning a type of variable
Declaration of limits for possible changes, initial level |
| 4. EQUATIONS | Equations or complexes and arrays of equations (includes both declaration and definition) |
| 5. MODEL | Model declaration (which equations to include) |
| 6. SOLVE | Method of solution (which algorithm to use) |
| 7. OUTPUT | Output of information to files |

Perform the following exercises: (Note: Use NLP solver)

1- Max $(x + 2) * (y + 1)$
Subject to
 $4x + 6y = 130$

2- Min $(x + 3)^2 * y^2$
Subject to
 $2x + y \leq 30$
 $x + y = 20$
 $x, y \geq 0$

Assignment

Solve the following using NLP solver

Max $x^3 * (y + 1)^2$
Subject to
 $3x + 5y \leq 100$
 $2y \leq 30$
 $x, y \geq 0$

Due to **Next Lab** (Cover Page – Print Screen the model – Print Screen the result)

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