

Assignment Module_9

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```
#Set Working Directory
getwd()

## [1] "C:/MSBA/QMM/Assignment Module_9"

setwd("C:/MSBA/QMM/Assignment Module_9")

library(lpSolveAPI)
employmentmax <- read.lp("employmentmax.lp")
employmentmax

## Model name:
##          X1    X2    X3    Y1P    Y1M    Y2M    Y2P
## Maximize   20    15    25     -6     -6     -3      0
## R1         6     4     5     -1      1      0      0 = 50
## R2         8     7     5      0      0      1     -1 = 75
## Kind       Std   Std   Std   Std   Std   Std   Std
## Type       Real  Real  Real  Real  Real  Real  Real
## Upper      Inf   Inf   Inf   Inf   Inf   Inf   Inf
## Lower       0     0     0     0     0     0     0

solve(employmentmax)

## [1] 0

get.objective(employmentmax)

## [1] 225

get.variables(employmentmax)

## [1] 0 0 15 25 0 0 0
```

The objective function is 225. $X_1 = 0$, $X_2 = 0$, $X_3 = 15$, $Y_{1p} = 25$, $Y_{1m} = 0$, $Y_{2m} = 0$. This implies that since $y_1 = 0$ and $y_2 = 0$, so the first and second goals are fully satisfied.