zalshaye_6

```
library(lpSolveAPI)
BIP.ip <- read.lp("C:\\Users\\Z\\Desktop\\BIP.lp")
BIP.ip

## Model name:
##   a linear program with 12 decision variables and 9 constraints

solve(BIP.ip)

## [1] 0

get.objective(BIP.ip)

## [1] 17

get.variables(BIP.ip)

##  [1] 1 0 1 0 0 0 1 0 0 0 1 0

# put optimal values beside of variable names for better understanding of th
results
#cbind(arc.names, get.variables(BIP.ip))
```

zalshaye_6_Q2

```
library(lpSolveAPI)
SIP.ip <- read.lp("C:\\Users\\Z\\Desktop\\SIP.lp")
SIP.ip

## Model name:
##                          x1                x2                x3
x4                x5                x6                x7                x8
## Maximize                  4               6.5               5.9
5.4              5.15                10               8.4              6.25
## R1                       40                50                80
60                45                60                30                25
<=  2500000
## R2                       40                50                80
0                 0                 0                 0                 0  <=
1e+06
## R3                        0                 0                 0
60                45                60                 0                 0
<=    1e+06
## R4                        0                 0                 0
0                 0                 0                30                25  <=
1e+06
## Kind                   Std               Std               Std
Std               Std               Std               Std               Std
## Type                   Int               Int               Int
Int               Int               Int               Int               Int
## Upper                  Inf               Inf               Inf
Inf               Inf               Inf               Inf               Inf
## Lower                 2500              2000              1250
1666.66666666667  2222.22222222222  1666.66666666667  3333.33333333333
4000

solve(SIP.ip)

## [1] 0

get.objective(SIP.ip)

## [1] 487145.2

get.variables(SIP.ip)

## [1]  2500  6000  1250  1667  2223 13332 30000  4000
```