mbruner3_9

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11/2/2020

```
rm(list=ls())
```

```
library(lpSolveAPI)
```

```
gp <- read.lp("gp.lp")
gp
```

```
## Model name:
##             x1    x2    x3   y1p   y1n   y2n   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(gp)
```

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

```
get.objective(gp)
```

```
## [1] 225
```

```
get.variables(gp)
```

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

Summary

The maximum profit given the goals would be 225 million dollars if they produce only 15 units of Product 3 and 0 of Product 1 and 2, respectively. Also, the second goal of earnings being >= to $75 million is met. The first goal, however, will not be met and will go over the employment level by 25 people.