nmelena_2_ext

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2024-09-21

```r
library(lpSolveAPI)
```

```r
Assignment_2 <- read.lp("Assignment_2.lp") # create an lp object Assignment_2
Assignment_2                               # Assignment_2
```

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

```r
solve(Assignment_2)
```

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

```r
get.objective(Assignment_2)        # get objective value
```

```
## [1] 695999.9
```

```r
get.variables(Assignment_2)        # get values of decision variables
```

```
## [1] 516.6682    0.0000    0.0000 177.7757 666.6667    0.0000    0.0000 166.6667
## [9] 416.6667
```

```r
get.constraints(Assignment_2)      # get constraint RHS values
```

```
##  [1]    694.4439    833.3333    416.6667 13000.0000 12000.0000  5000.0000
##  [7]    694.4439    833.3333    416.6667     0.0000     0.0000     0.0000
```

The Maximum profit is 695999.9

The optimal variable values are as fallows: L1=516.8698 L2=0 L3=0 M1=177.5069 M2=666.6667 M3=0 S1=0 S2=166.6667 S3=416.6667