

```
library(lpSolveAPI);
```

```
## Warning: package 'lpSolveAPI' was built under R version 4.0.3
```

```
# Converts the lp file to a solvable form  
x <- read.lp("Transport.lp");  
# Displays the problem  
x;
```

```
## Model name:
```

```
##           x1    x2    x3    x4    x5    x6  
## Minimize  622   614   630   641   645   649  
## DemandWarehouse1  1    0    0    1    0    0  =   80  
## DemandWarehouse2  0    1    0    0    1    0  =   60  
## DemandWarehouse3  0    0    1    0    0    1  =   70  
## CapacityPlant1    1    1    1    0    0    0 <=  100  
## CapacityPlant2    0    0    0    1    1    1 <=  120  
## Kind           Std   Std   Std   Std   Std   Std  
## Type           Real  Real  Real  Real  Real  Real  
## Upper          Inf   Inf   Inf   Inf   Inf   Inf  
## Lower          0     0     0     0     0     0
```

```
# Solves the problem  
solve(x);
```

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

```
# Displays the objective, which is the minimum cost.  
get.objective(x);
```

```
## [1] 132790
```

```
# Displays the variables, which are the solutions that lead to the minimum cost.  
get.variables(x);
```

```
## [1]  0 60 40 80  0 30
```

The Model shows that the minimum cost that meets all constraints is \$132790 Plant 1 should produce 100 units, and Plant 2 should produce 110 units. Plant 1 should ship 0 units to Warehouse 1, 60 units to Warehouse 2, and 40 units to Warehouse 3. Plant 2 should ship 80 units to warehouse 1, 0 units to factory 2, and 30 units to factory 3.