

# The Transportation Model

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```
library(lpSolve)
#The Unit shipping cost Of AED in PlantA warehouse1=$22
#The Unit shipping cost Of AED in PlantA warehouse2=$14
#The Unit shipping cost Of AED in PlantA warehouse3=$30
#The Unit shipping cost Of AED in PlantB warehouse1=$16
#The Unit shipping cost Of AED in PlantB warehouse2=$20
#The Unit shipping cost Of AED in PlantB warehouse3=$24
#The Unit Production cost Of AED in PlantA =$600
#The Unit Production cost Of AED in plantB =$625
#PlantA's monthly production capacity = 100
#PlantB's monthly production capacity = 120
#warehouse1 Monthly Demand = 80
#warehouse2 Monthly Demand = 60
#warehouse3 Monthly Demand = 70
costs<-matrix(c(622,614,630,0,
                641,645,649,0),ncol=4,byrow=TRUE)
row.signs<-rep("<=",2)
row.rhs<-c(100,120)

col.signs<-rep(">=",4)
col.rhs<-c(80,60,70,10)

lptrans<-lp.transport(costs,"min",row.signs,row.rhs,col.signs,col.rhs)

lptrans$solution

##      [,1] [,2] [,3] [,4]
## [1,]    0   60   40    0
## [2,]   80    0   30   10

lptrans$objval

## [1] 132790
```