HW2\_draft

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# Problems

# Computer exercises

## Question 1

Replicate the following vector of numbers using **seq()** function and call it **v1.**

v1 <- seq(from = 1,to = 17,by = 4)  
v1

[1] 1 5 9 13 17

## Question 2

### part I

Replicate the following matrix in R and call it A.

a <- matrix(20:39,4,5, byrow = TRUE)  
a

[,1] [,2] [,3] [,4] [,5]  
[1,] 20 21 22 23 24  
[2,] 25 26 27 28 29  
[3,] 30 31 32 33 34  
[4,] 35 36 37 38 39

colnames(a)<-(c('A','B','C','D','E'))  
a

A B C D E  
[1,] 20 21 22 23 24  
[2,] 25 26 27 28 29  
[3,] 30 31 32 33 34  
[4,] 35 36 37 38 39

B <- a[c(2,4), c("B", "D")]  
B

B D  
[1,] 26 28  
[2,] 36 38

t(B)

[,1] [,2]  
B 26 36  
D 28 38

B.inverse <- solve(B)  
B.inverse

[,1] [,2]  
B -1.9 1.4  
D 1.8 -1.3

B2 <- B.inverse%\*%B  
B2

B D  
B 1 0  
D 0 1