Module\_6.R

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#question 1:  
A <- matrix(c(2,0,1,3), ncol=2)   
B <- matrix(c(5,2,4,-1), ncol=2)  
# Question 1a  
A + B

## [,1] [,2]  
## [1,] 7 5  
## [2,] 2 2

# Question 1b  
A - B

## [,1] [,2]  
## [1,] -3 -3  
## [2,] -2 4

# Question 2  
diag(4)

## [,1] [,2] [,3] [,4]  
## [1,] 1 0 0 0  
## [2,] 0 1 0 0  
## [3,] 0 0 1 0  
## [4,] 0 0 0 1

diag(1)

## [,1]  
## [1,] 1

diag(2)

## [,1] [,2]  
## [1,] 1 0  
## [2,] 0 1

diag(3)

## [,1] [,2] [,3]  
## [1,] 1 0 0  
## [2,] 0 1 0  
## [3,] 0 0 1

#Question 3  
m <- matrix(c(3,2,2,2,2,1,3,0,0,0,1,0,3,0,0,1,0,0,3,0,1,0,0,0,3), ncol = 5)  
m

## [,1] [,2] [,3] [,4] [,5]  
## [1,] 3 1 1 1 1  
## [2,] 2 3 0 0 0  
## [3,] 2 0 3 0 0  
## [4,] 2 0 0 3 0  
## [5,] 2 0 0 0 3