What is the output of the above code?

```r
> y <- matrix(c(4,3,2,1), byrow = TRUE)
> y
```

```
[1,] 4 3 2 1
[2,] 1 4 3 2
```

What will the dimension of matrix.std be if the following code script is executed?

```r
> h <- rbind(c(1,2), cbind(c(3,4), c(5,6)))
> matrix.std <- cbind(h, c(7,8))
```

- 3*3
- 4*2
- 2*4
- Error

Three matrices are given below. Which one of the following will give me mymatrix3?

```r
> mymatrix1
[1,]  1  5  4  3
[2,]  0  1 -1  3
[3,]  2  3  1  0

> mymatrix2
[1,] -1  1  4  1
[2,] -3  1  1  0
[3,]  1  4 -1  2

> mymatrix3
[1,]  1  9  2  5
[2,] -5  18  18 11
[3,]  0  7 14  6
[4,] -12  6 15  3
```

```r
t(mymatrix1)%*%mymatrix2
```

- t(mymatrix1)*mymatrix2
- mymatrix1*mymatrix2
- mymatrix1%*%mymatrix2

The matrix below shows us Height and Weight values of students in class.

```r
> weight.height <- cbind(weight.height, vec)
> weight.height <-
```
Two more Students Can and Ahmet join the class. Their Height and Weight values are given in the vector:

```r
vec <- c(1.85, 77, 1.79, 65)
names(vec) <- c("Canh", "Canw", "Ahmeth", "Ahmetw")
```

I want to put their data into the `weight.height` matrix. I also want to name the values. Which one of the following will work?

```r
# note that there is an extension of the vector recycling to matrices:
# let's run the code below in R:
x <- rbind(c(1,2,3),c(4,5,6))
x <- cbind(x, 1E6)
warning message: in cbind(x, 1E6): number of rows of result is not a multiple of vector length (arg 2)
warning message is given by R, but that doesn't mean that it didn't add the vector to the matrix:
dim(x)
2 4
```

What is the output if the following code is executed?

```r
z <- matrix(c(1:16), nrow=4)
z[4,2]
```

```
8
14
16
6
```

What is the output if the following code script is executed?

```r
n <- matrix(c(1:20), nrow=5)
x <- n[1:3,3:4]
x>=13
```

```
FALSE TRUE FALSE TRUE
TRUE FALSE FALSE FALSE
FALSE FALSE TRUE TRUE
FALSE FALSE FALSE TRUE
TRUE TRUE TRUE TRUE
```

Which of the followings is/are true to generate the output "abcabc":

i. `rep(c("a","b","c"),2)`
ii. `c("a","b","c") + c("a","b","c")`
iii. `c(c("a","b","c"),"a","b","c")`
iv. `c(c("a","b","c"),c("a","b","c"))`

```
i, iii, iv
i, ii
iii, iv
i, ii, iii
```

What is the output of `seq(-5,5,len=5)`?

```
-5
-2.5
0
2.5
5
```
What will be the output if you run

>apply(Lost,2,Kate,2,3)?

we have the kate function;

kate<-function(x,sawyer=3,jack=2){(x+sawyer)^(jack)}

and we have the matrix;

lost<-matrix(c(1,2,3,4,5,4,3,2,1),ncol=3,nrow=3,byrow=t)

Which one of the following code can give the matrix below?

```
[,1] [,2] [,3]
[1,]  4   5   6
[2,]  7   8   9
[3,] 10  11  12
```

```
i) apply(rbind(c(1,2,3),c(4,5,6),c(7,8,9),byrow=t) , 1 , function(x,plus=3){x+3})
ii) apply(cbind(c(1,2,3),c(4,5,6),c(7,8,9)) , 1 , function(x,plus=3){x+3})
iii) apply(matrix(c(1,2,3,4,5,6,7,8,9),nrow=3,ncol=3,byrow=t) , 2 , function(x,plus=3){x+3})
iv) apply(matrix(c(1,2,3,4,5,6,7,8,9),nrow=3,ncol=3,byrow=t) , 1 , function(x,plus=3){x+3})
```