

# Symmetric Matrix From Half-Vectorization

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```
library(linearAlgebra)

A <- matrix(c("a", "b", "b", "c"), ncol = 2)
A

##      [,1] [,2]
## [1,] "a"  "b"
## [2,] "b"  "c"

vechA <- c("a", "b", "c")
vechsA <- "b"
diagsA <- c("a", "c")
```

## Symmetric Matrix From Half-Vectorization

### From Half-Vectorization

```
sym_of_vech(vechA)

##      [,1] [,2]
## [1,] "a"  "b"
## [2,] "b"  "c"
```

## Symmetric Matrix From Strict Half-Vectorization

```
sym_of_vechs(vechsA, diags = diagsA)
```

```
##      [,1] [,2]
```

```
## [1,] "a"  "b"
```

```
## [2,] "b"  "c"
```