

## Week 3 - Discussion Board Follow up

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$$B = \begin{bmatrix} -12 & 30 \\ -5 & 13 \end{bmatrix}$$

```
library(pracma)
```

```
# Create matrix B
```

```
b <- matrix(c(-12, 30, -5, 13), nrow = 2, byrow = T)  
b
```

```
##      [,1] [,2]  
## [1,] -12  30  
## [2,]  -5  13
```

```
# Characteristic Polynomial
```

```
charpoly(b)
```

```
## [1]  1 -1 -6
```

```
# Find Eigenvalues
```

```
eigen(b)$values
```

```
## [1]  3 -2
```

```
# Find Eigenvectors
```

```
eigen(b)$vectors
```

```
##      [,1]      [,2]  
## [1,] -0.8944272 -0.9486833  
## [2,] -0.4472136 -0.3162278
```