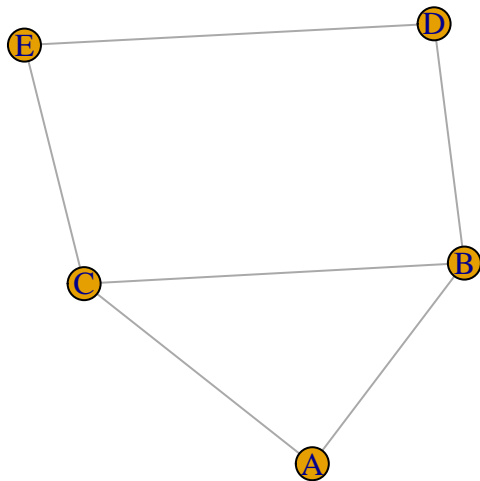# HW1Q7

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```r
# Install the package if it is not installed
#install.packages("igraph")
library(igraph)
```

```
## Warning: package 'igraph' was built under R version 4.0.5
```

```
##
## Attaching package: 'igraph'
```

```
## The following objects are masked from 'package:stats':
##
##     decompose, spectrum
```

```
## The following object is masked from 'package:base':
##
##     union
```

```r
# Create the network
graph <- graph.formula(A-B,A-C,B-C,B-D,C-E,D-E)
# Test and plot
plot(graph)
```



```r
# Compute the node betweenness
betweenness(graph)
```

```
##   A   B   C   D   E
## 0.0 1.5 1.5 0.5 0.5
```

```r
# Compute the edge betweenness
E(graph)
```

1

```
## + 6/6 edges from 144d81d (vertex names):
## [1] A--B A--C B--C B--D C--E D--E
```

```r
edge.betweenness(graph)
```

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