

# Lab 1

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## Question 1

Install all required packages, and include a chunk that loads each.

As a heads up, I set all messages, warnings, and errors to FALSE so that this single chunk wouldn't take up 4 pages :).

```
library(ggplot2)
library(devtools)
library(tidyverse)
library(rio)
library(sna)
library(igraph)
library(statnet)
library(UserNetR)
```

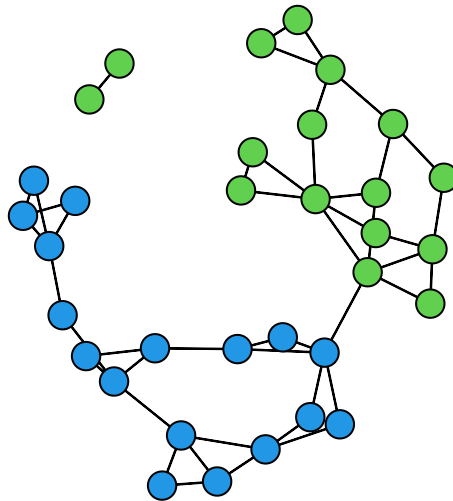
## Question 2

Load the Moreno data and plot the network. In your visualization, change the Vertex size to 3.

```
friendship <- UserNetR::Moreno

gender <- friendship %v% "gender"

#change vertex to 3
plot(friendship, vertex.col = gender + 2, vertex.cex = 3)
```



### Question 3

How many nodes are in the friendship network?

```
network.size(friendship)
```

```
## [1] 33
```

There are 33 nodes in the friendship network.

### Question 4

What is the density of the network?

```
gden(friendship)
```

```
## [1] 0.08712121
```

The density of this network is .087, which tells us this network is not very interconnected.