# Part A

## Exercise 1

First load package and csv file

All variables should be factors.

A screenshot of a computer program

Description automatically generated

## Exercise 2

A screenshot of a computer program

Description automatically generated

A diagram of a diagram

Description automatically generated

## Exercise 3



## Exercise 4

When looking at the plot we see no arrows between e.g. "Mailed" and "Income". This means they are independent, insofar we do not set any evidence.

However, if we suddenly set evidence for "Buy" the two becomes dependent.

A screenshot of a computer

Description automatically generated

We can also use d-separation to investigate conditional indepencence (the example above could be called conditional dependence).

For example, does a change in "Occupation" affect "Buy" if we already know "Income"?

First, we can inspect if there is dependence between "Occupation" and "Buy" without setting evidence.

## Exercise 5

SSS

## Exercise 6

SSS

## Exercise 7

SSS