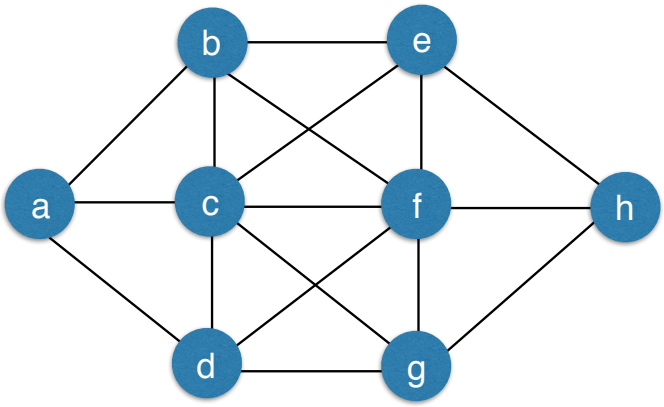
FIT5216: Modelling Discrete Optimization Problems
Inclass Task 2: GraphLabel

1 Problem Statement

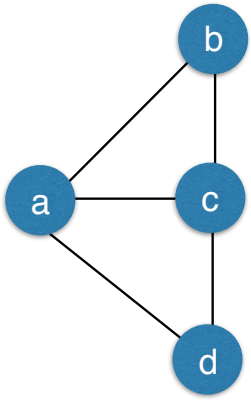
The problem is to label the nodes of the graph



so that each node is labelled by a different number from 1 to 8, and each pair of nodes that share an edge have labels which are at least two apart.

For example the assignment: `a = 1, b = 3, c = 5, d = 7, e = 2, f = 4, g = 6, h = 8` is incorrect as `b` and `e` are adjacent and their labels are not two apart.

You can try to do this first by hand. If thats too hard try to solve the simpler graph



where the labels are between 1 and 6 and each pair of nodes that share an edge have labels that are at least two apart.

Build a MiniZinc model `graphlabel.mzn` which solves the problem,

2 Instructions

Edit the provided `mzn` model files to solve the problems described above. Your implementations can be tested locally by using the *Run* icon in the MiniZinc IDE or by using,

```
minizinc ./modelname.mzn
```

at the command line.