

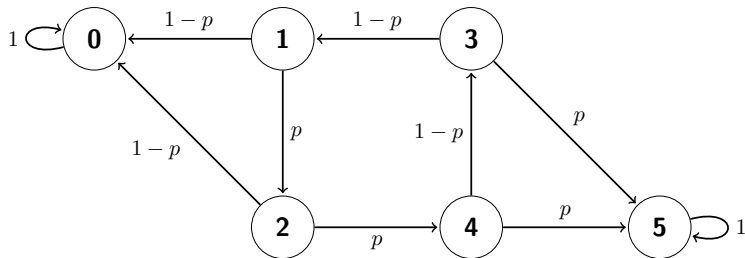
# Diagramming workshop

Jono Tuke

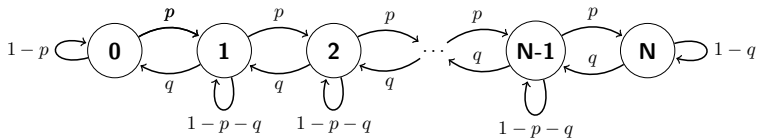
9/7/22

Tikz

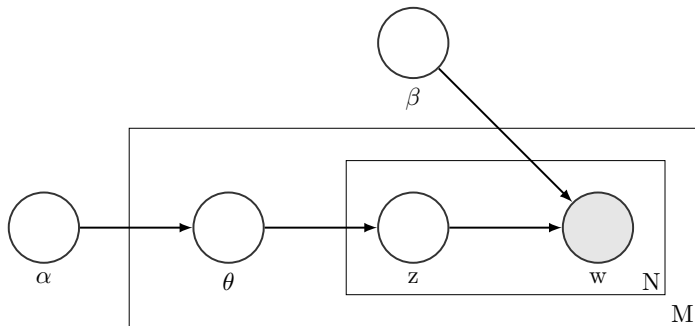
## Example 1: Markov chain 1



## Example 2: Markov chain 2



### Example 3: Plate diagram



# Tricks

- ▶ TextExpander
- ▶ Makefile

# Omnigraffle

- ▶ Connections
- ▶ Magnets
- ▶ LaTeXiT
- ▶ Layouts
- ▶ Exporting
- ▶ Computer Modern

# DiagrammeR

[http://rich-iannone.github.io/DiagrammeR/graphviz\\_and\\_mermaid.html](http://rich-iannone.github.io/DiagrammeR/graphviz_and_mermaid.html)

```
pacman::p_load(DiagrammeR)
```



# TikzDevice

```
pacman::p_load(tikzDevice)
```

# MPG plot

```
tikz("tikz/mpg.tex", standAlone = TRUE)
mpg |>
  ggplot(aes(displ, cty, col = drv)) +
  geom_point()
dev.off()
```

pdf

2

# Input

```
tikz("tex/mpg.tex", width = 4, height = 4,standAlone = FALSE)
mpg |>
  ggplot(aes(displ, cty, col = drv)) +
  geom_point()
dev.off()
```

pdf  
2

# Maths

```
tikz("tikz/mpg_annotated.tex", standalone = TRUE)
mpg |>
  ggplot(aes(displ, cty, col = drv)) +
  geom_point() +
  geom_text(x = 5, y = 25,
            label = "$y_i = \\beta_0 + \\beta_1 x_i + \\epsilon_i$",
            col = "black") +
  labs(x = "Displacement ($m^3$)")
dev.off()
```

pdf