

# An Example R Markdown Document

(A Subtitle Would Go Here if This Were a Class)

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## Pop Songs and Political Science

# Sheena Easton and Game Theory

Sheena Easton describes the following scenario for her baby:

1. Takes the morning train
2. Works from nine 'til five
3. Takes another train home again
4. Finds Sheena Easton waiting for him

Sheena Easton and her baby are playing a **zero-sum (total conflict) game**.

- ▶ Akin to Holmes-Moriarty game (see: von Neumann and Morgenstern)
- ▶ Solution: **mixed strategy**

# Rick Astley's Re-election Platform

Rick Astley's campaign promises:

- ▶ Never gonna give you up.
- ▶ Never gonna let you down.
- ▶ Never gonna run around and desert you.
- ▶ Never gonna make you cry.
- ▶ Never gonna say goodbye.
- ▶ Never gonna tell a lie and hurt you.

Whereas these pledges conform to the preferences of the **median voter**, we expect Congressman Astley to secure re-election.

# Caribbean Queen and Operation Urgent Fury

Billy Ocean released “Caribbean Queen” in 1984.

- ▶ Emphasized sharing the same dream
- ▶ Hearts beating as one

“Caribbean Queen” is about the poor execution of Operation Urgent Fury.

- ▶ Echoed JCS chairman David Jones’ frustrations with military establishment.

Billy Ocean is advocating for what became the Goldwater-Nichols Act.

- ▶ Wanted to take advantage of **economies of scale**, resolve **coordination problems** in U.S. military.

# The Good Day Hypothesis

We know the following about Ice Cube's day.

1. The Lakers beat the Supersonics.
2. No helicopter looked for a murder.
3. Consumed Fatburger at 2 a.m.
4. Goodyear blimp: "Ice Cube's a pimp."

This leads to two different hypotheses:

- ▶  $H_0$ : Ice Cube's day is statistically indistinguishable from a typical day.
- ▶  $H_1$ : Ice Cube is having a good (i.e. greater than average) day.

These hypotheses are tested using archival data of Ice Cube's life.

Example R code



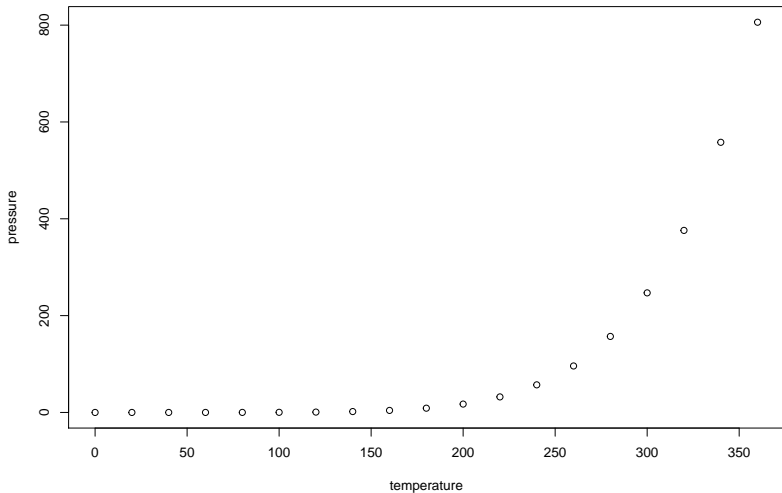
## Example R stuff

```
summary(cars)
```

##	speed	dist
##	Min. : 4.0	Min. : 2.00
##	1st Qu.:12.0	1st Qu.: 26.00
##	Median :15.0	Median : 36.00
##	Mean :15.4	Mean : 42.98
##	3rd Qu.:19.0	3rd Qu.: 56.00
##	Max. :25.0	Max. :120.00

# Slide with Plot

```
plot(pressure)
```



## ggplot code

```
df <- data.frame(x = rnorm(1000))  
x <- df$x  
base <- ggplot(df, aes(x)) + geom_density() + scale_x_continuous(  
base + stat_function(fun = dnorm, colour = "red")
```

## Another Plot

