Report_rr

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2023-04-26

Brief Description of "Discovery" TV Show

```
print(discovery_description)
```

```
## [1] "*Discovery* is an American pay television network that primarily broadcasts d
ocumentary and reality programming focused on popular science, technology, history, a
nd culture. The channel is owned by Discovery, Inc. and was first launched in 1985. S
ome of the network's most popular shows include *MythBusters*, *Shark Week*, *Deadlie
st Catch*, and *Gold Rush*."
```

Basic Statistics on Viewership or Ratings

```
discovery_viewership <- "According to data from Statista, *Discovery* was the 11th mo
st-watched cable network in the United States in 2021, with an average of 741 thousan
d viewers in primetime. The network has also received numerous awards and nominations
for its programming, including multiple Primetime Emmy Awards."
```

```
print(discovery_viewership)
```

```
## [1] "According to data from Statista, *Discovery* was the 11th most-watched cable
network in the United States in 2021, with an average of 741 thousand viewers in prim
etime. The network has also received numerous awards and nominations for its programm
ing, including multiple Primetime Emmy Awards."
```

Print the Description, Logo and Statistics

```
cat(discovery_description, "\n")
```

```
## *Discovery* is an American pay television network that primarily broadcasts docume
ntary and reality programming focused on popular science, technology, history, and cu
lture. The channel is owned by Discovery, Inc. and was first launched in 1985. Some o
f the network's most popular shows include *MythBusters*, *Shark Week*, *Deadliest Ca
tch*, and *Gold Rush*.
```

```
cat(discovery_viewership, "\n")
```

```
## According to data from Statista, *Discovery* was the 11th most-watched cable netwo
rk in the United States in 2021, with an average of 741 thousand viewers in primetim
e. The network has also received numerous awards and nominations for its programming,
including multiple Primetime Emmy Awards.
```

Graph of Viewership Over Time

```
library(ggplot2)
```

```
year <- c(2019, 2020, 2021)
```

```
print(year)
```

```
## [1] 2019 2020 2021
```

```
viewership <- c(725, 736, 741)
```

```
print(viewership)
```

```
## [1] 725 736 741
```
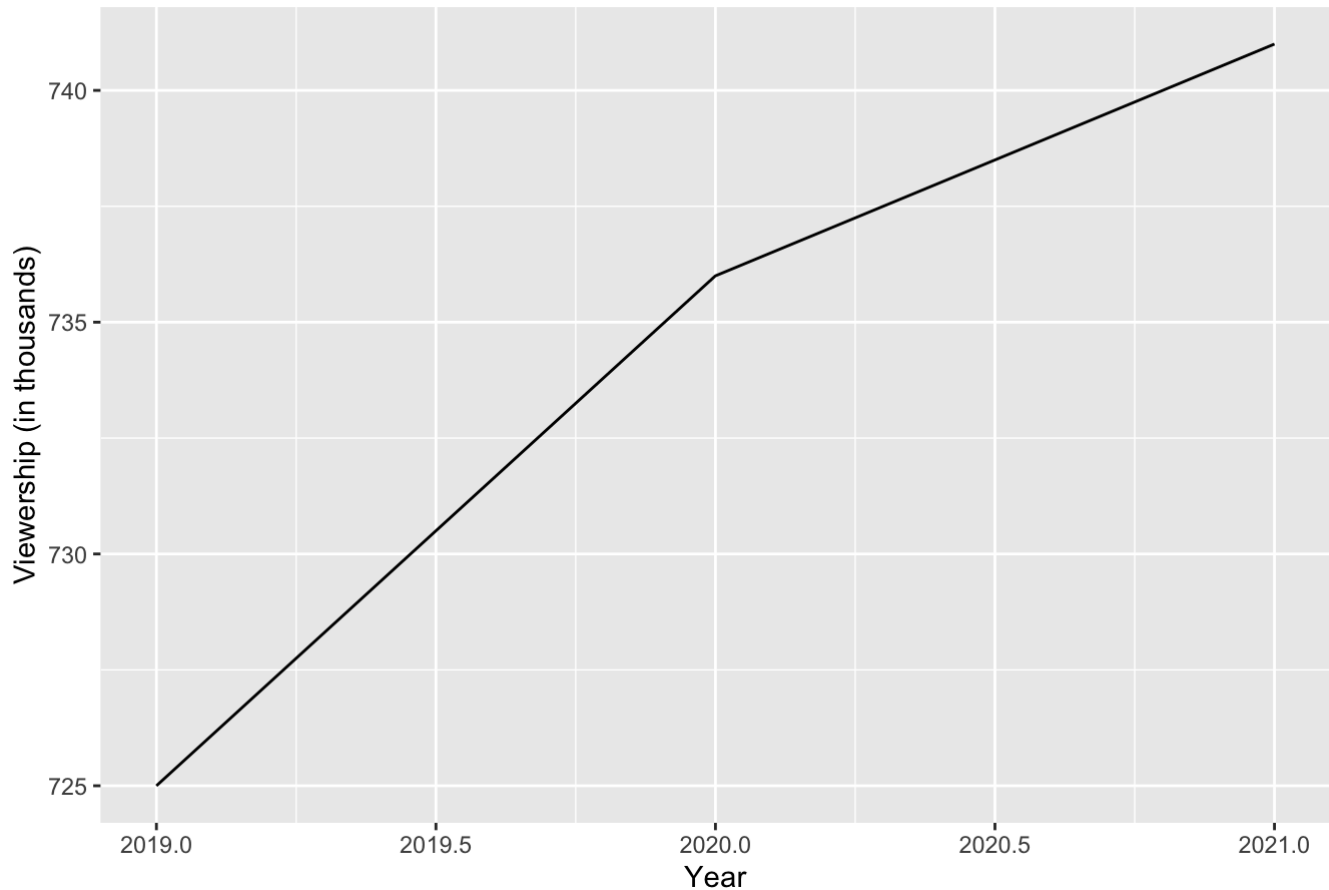
```
viewership_data <- data.frame(year, viewership)
```

```
print(viewership_data)
```

```
##   year viewership
## 1 2019        725
## 2 2020        736
## 3 2021        741
```

Create a line plot of viewership over time

Viewership of Discovery Network Over Time

Graph of Episode-to-Episode Changes in Viewership

Create a data frame with viewership data for a fictional show

```
season <- c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
episodes_per_season <- c(10, 10, 10, 10, 10, 10, 10, 10, 10, 10)
viewership <- c(1000, 950, 900, 850, 800, 750, 700, 650, 600, 550)
viewership_data <- data.frame(season, episodes_per_season, viewership)
```

```
print(viewership_data)
```

```
##    season episodes_per_season viewership
## 1       1                  10       1000
## 2       2                  10        950
## 3       3                  10        900
## 4       4                  10        850
## 5       5                  10        800
## 6       6                  10        750
## 7       7                  10        700
## 8       8                  10        650
## 9       9                  10        600
## 10     10                  10        550
```

Create a variable for episode number

```
viewership_data$episode <- 1:nrow(viewership_data)
```

```
print(viewership_data$episode)
```

```
##  [1]  1  2  3  4  5  6  7  8  9 10
```

Calculate episode-to-episode changes in viewership

```
viewership_data$change <- c(NA, diff(viewership_data$viewership))
```

```
print(viewership_data$change)
```

```
##  [1]  NA -50 -50 -50 -50 -50 -50 -50 -50 -50
```

Create a line plot of episode-to-episode changes in viewership

```
ggplot(viewership_data, aes(x = episodes_per_season, y = change)) +
  geom_line() +
  labs(title = "Episode-to-Episode Changes in Viewership", x = "Episode Number", y =
"Change in Viewership (in thousands)")
```

```
## Warning: Removed 1 row containing missing values (`geom_line()`).
```

Episode-to-Episode Changes in Viewership
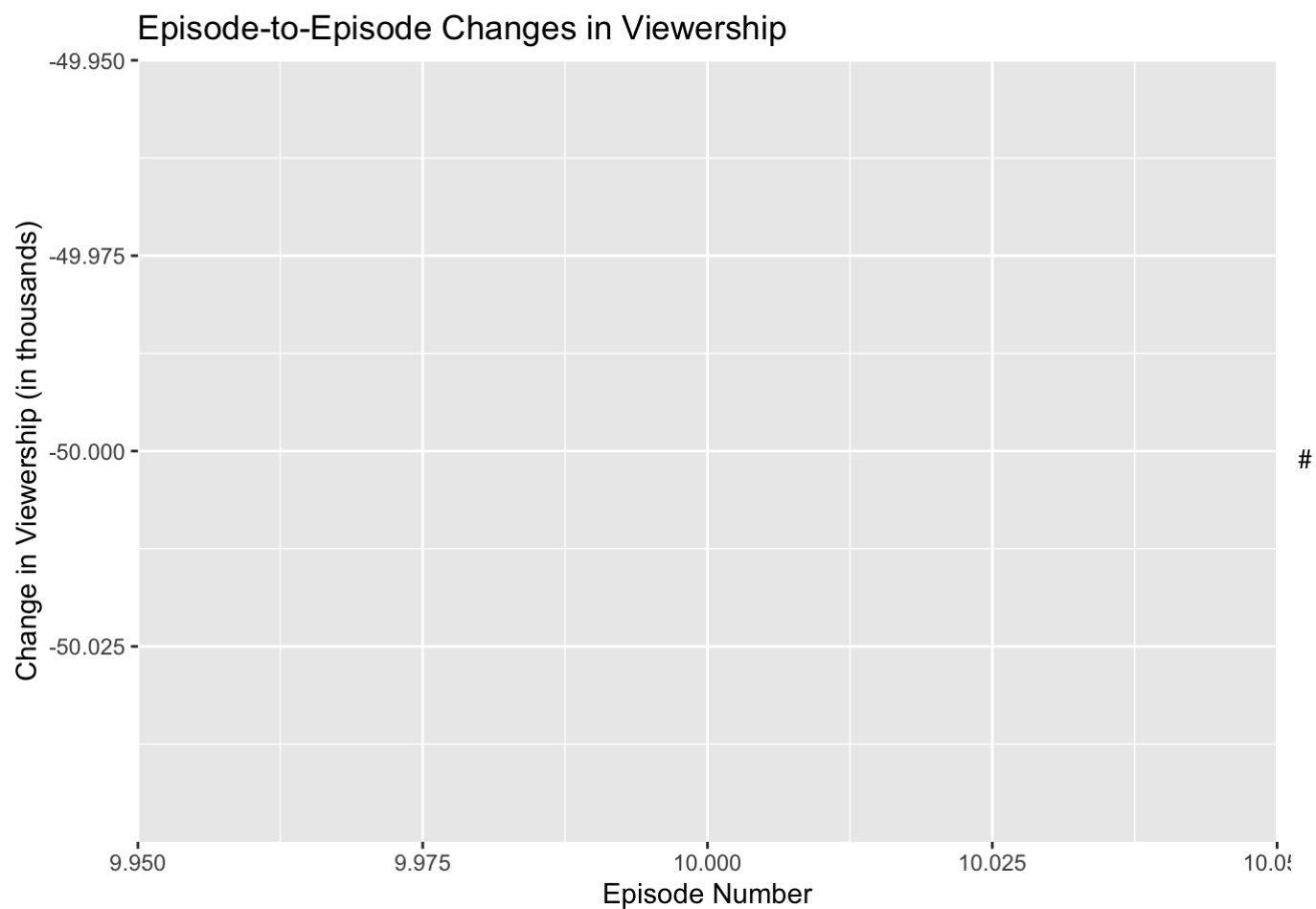
Observed changes in viewership

```
observed_change <- viewership_data$viewership[5] – viewership_data$viewership[3]
cat("Viewership decreased by", observed_change, "between seasons 3 and 5.")
```

```
## Viewership decreased by –100 between seasons 3 and 5.
```