|  |
| --- |
|  |

num\_vector <- c(3, 2, 1)

> print(num\_vector)

[1] 3 2 1

> char\_vector <- c("three", "two", "one")

> print(char\_vector)

[1] "three" "two" "one"

> week1\_sleep <- c(6.1, 8.8, 7.7, 6.4, 6.2, 6.9, 6.6)

> week1\_sleep[3]

[1] 7.7

> week1\_sleep\_weekdays <- week1\_sleep[2:6]

> total\_sleep\_week1 <- sum(week1\_sleep)

> week2\_sleep <- c(7.1, 7.4, 7.9, 6.5, 8.1, 8.2, 8.9)

> total\_sleep\_week2 <- sum(week2\_sleep)

> total\_sleep\_week1 < total\_sleep\_week2

[1] TRUE

> mean(week1\_sleep)

[1] 6.957143

> days <- c("Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday")

> names(week1\_sleep) <- days

> names(week2\_sleep) <- days

> week1\_sleep["Tuesday"]

Tuesday

7.7

> weekdays <- days[2:6]

> weekends <- c("Sunday", "Saturday")

> weekdays1\_mean <- mean(week1\_sleep[weekdays])

> weekdays2\_mean <- mean(week2\_sleep[weekdays])

> weekdays1\_mean > weekdays2\_mean

[1] FALSE

> week1\_sleep > 8

Sunday Monday Tuesday Wednesday Thursday Friday Saturday

FALSE TRUE FALSE FALSE FALSE FALSE FALSE

> student01 <- c(100.0, 87.1)

> student02 <- c(77.2, 88.9)

> student03 <- c(66.3, 87.9)

> students\_combined <- c(student01, student02, student03)

> grades <- matrix(students\_combined, byrow = TRUE, nrow = 3)

> student04 <- c(95.2, 94.1)

> grades <- rbind(grades, student04)

> assignment04 <- c(92.1, 84.3, 75.1, 97.8)

> grades <- cbind(grades, assignment04)

> assignments <- c("Assignment 1", "Assignment 2", "Assignment 3")

> students <- c("Florinda Baird", "Jinny Foss", "Lou Purvis", "Nola Maloney")

> rownames(grades) <- students

> colnames(grades) <- assignments

> colSums(grades)

Assignment 1 Assignment 2 Assignment 3

338.7 358.0 349.3

> rowSums(grades)

Florinda Baird Jinny Foss Lou Purvis Nola Maloney

279.2 250.4 229.3 287.1

> weighted\_grades <- grades \* 0.1 + grades

> genres\_vector <- c("Fantasy", "Sci-Fi", "Sci-Fi", "Mystery", "Sci-Fi", "Fantasy")

> factor\_genre\_vector <- factor(genres\_vector)

> summary(factor\_genre\_vector)

Fantasy Mystery Sci-Fi

2 1 3

> recommendations\_vector <- c("neutral", "no", "no", "neutral", "yes")

> factor\_recommendations\_vector <- factor(

+ recommendations\_vector,

+ ordered = TRUE,

+ levels = c("no", "neutral", "yes")

+ )

> summary(factor\_recommendations\_vector)

no neutral yes

2 2 1

> head(mtcars)

mpg cyl disp hp drat wt qsec vs am gear carb

Mazda RX4 21.0 6 160 110 3.90 2.620 16.46 0 1 4 4

Mazda RX4 Wag 21.0 6 160 110 3.90 2.875 17.02 0 1 4 4

Datsun 710 22.8 4 108 93 3.85 2.320 18.61 1 1 4 1

Hornet 4 Drive 21.4 6 258 110 3.08 3.215 19.44 1 0 3 1

Hornet Sportabout 18.7 8 360 175 3.15 3.440 17.02 0 0 3 2

Valiant 18.1 6 225 105 2.76 3.460 20.22 1 0 3 1

> tail(mtcars)

mpg cyl disp hp drat wt qsec vs am gear carb

Porsche 914-2 26.0 4 120.3 91 4.43 2.140 16.7 0 1 5 2

Lotus Europa 30.4 4 95.1 113 3.77 1.513 16.9 1 1 5 2

Ford Pantera L 15.8 8 351.0 264 4.22 3.170 14.5 0 1 5 4

Ferrari Dino 19.7 6 145.0 175 3.62 2.770 15.5 0 1 5 6

Maserati Bora 15.0 8 301.0 335 3.54 3.570 14.6 0 1 5 8

Volvo 142E 21.4 4 121.0 109 4.11 2.780 18.6 1 1 4 2

> name <- c("Aragon", "Bilbo", "Frodo", "Galadriel", "Sam", "Gandalf", "Legolas", "Sauron", "Gollum")

> race <- c("Men", "Hobbit", "Hobbit", "Elf", "Hobbit", "Maia", "Elf", "Maia", "Hobbit")

> in\_fellowship <- c(TRUE, FALSE, TRUE, FALSE, TRUE, TRUE, TRUE, FALSE, FALSE)

> ring\_bearer <- c(FALSE, TRUE, TRUE, FALSE, TRUE, TRUE, FALSE, TRUE, TRUE)

> age <- c(88, 129, 51, 7000, 36, 2019, 2931, 7052, 589)

> characters\_df <- data.frame(name, race, in\_fellowship, ring\_bearer, age)

> sorted\_characters\_df <- characters\_df[order(age),]

> head(sorted\_characters\_df)

name race in\_fellowship ring\_bearer age

5 Sam Hobbit TRUE TRUE 36

3 Frodo Hobbit TRUE TRUE 51

1 Aragon Men TRUE FALSE 88

2 Bilbo Hobbit FALSE TRUE 129

9 Gollum Hobbit FALSE TRUE 589

6 Gandalf Maia TRUE TRUE 2019

> ringbearers\_df <- characters\_df[characters\_df$ring\_bearer == TRUE,]

> head(ringbearers\_df)

name race in\_fellowship ring\_bearer age

2 Bilbo Hobbit FALSE TRUE 129

3 Frodo Hobbit TRUE TRUE 51

5 Sam Hobbit TRUE TRUE 36

6 Gandalf Maia TRUE TRUE 2019

8 Sauron Maia FALSE TRUE 7052

9 Gollum Hobbit FALSE TRUE 589

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