01.Vectors.R

Pedro

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numeric\_vector <- c(1, 10, 49)  
character\_vector <- c("a", "b", "c")

c() = Combine Function - Cria um vetor!

# Complete the code for boolean\_vector  
boolean\_vector <- c(TRUE, FALSE, TRUE)

Montando Vetores

# Poker winnings from Monday to Friday  
poker\_vector <- c(140, -50, 20, -120, 240)  
  
# Roulette winnings from Monday to Friday  
roulette\_vector <- c(-24, -50, 100, 350, 10)  
  
poker\_vector

## [1] 140 -50 20 -120 240

Nomeando as Variáveis de um Vetor

# Poker winnings from Monday to Friday  
poker\_vector <- c(140, -50, 20, -120, 240)  
  
# Roulette winnings from Monday to Friday  
roulette\_vector <- c(-24, -50, 100, -350, 10)  
  
# The variable days\_vector  
days\_vector <- c("Monday", "Tuesday", "Wednesday", "Thursday", "Friday")  
  
# Assign the names of the day to roulette\_vector and poker\_vector  
names(poker\_vector) <- days\_vector  
names(roulette\_vector) <- days\_vector  
  
dia = "Monday"  
  
roulette\_vector[dia]

## Monday   
## -24

Somando Vetores

A\_vector <- c(1, 2, 3)  
B\_vector <- c(4, 5, 6)  
  
# Take the sum of A\_vector and B\_vector  
total\_vector <- B\_vector + A\_vector  
  
# Print out total\_vector  
total\_vector

## [1] 5 7 9

# Assign to total\_daily how much you won/lost on each day  
total\_daily <- poker\_vector + roulette\_vector  
total\_daily

## Monday Tuesday Wednesday Thursday Friday   
## 116 -100 120 -470 250

Outra maneira seria somar os vetores antes

# Total winnings with poker  
total\_poker <- sum(poker\_vector)  
  
# Total winnings with roulette  
total\_roulette <- sum(roulette\_vector)  
  
# Total winnings overall  
total\_week <- total\_poker + total\_roulette  
  
# Print out total\_week  
total\_week

## [1] -84

Comparando as Somas

# Check if you realized higher total gains in poker than in roulette   
total\_poker > total\_roulette

## [1] TRUE

Selecionando uma variável

# Define a new variable based on a selection  
poker\_wednesday <- poker\_vector["Wednesday"]  
poker\_wednesday

## Wednesday   
## 20

Selecionando vários elementos dentro de um vetor:

poker\_midweek = poker\_vector[c(2,3,4)]  
poker\_midweek

## Tuesday Wednesday Thursday   
## -50 20 -120

Uma forma mais elegante de fazer isso é usar a notação i:j, por exemplo: Selecionando vários elementos dentro de um vetor:

poker\_midweek = poker\_vector[2:4]  
poker\_midweek

## Tuesday Wednesday Thursday   
## -50 20 -120

# Define a new variable based on a selection  
roulette\_selection\_vector <- roulette\_vector[2:4]

Selecionando as variáveis usando o nome e avaliando a média.

# Select poker results for Monday, Tuesday and Wednesday  
poker\_start <- poker\_vector[c("Monday", "Tuesday", "Wednesday")]  
  
# Calculate the average of the elements in poker\_start  
mean(poker\_start)

## [1] 36.66667

# Which days did you make money on poker?  
selection\_vector <- poker\_vector > 0  
  
selection\_vector

## Monday Tuesday Wednesday Thursday Friday   
## TRUE FALSE TRUE FALSE TRUE

Selecionando dados de um vetor com um vetor de dados booleanos

poker\_winning\_days <- poker\_vector[selection\_vector]  
  
# Isso aqui em baixo pode selecionar dia sim, dia não  
# poker\_winning\_days = poker\_vector[c(TRUE, FALSE)]   
  
poker\_winning\_days

## Monday Wednesday Friday   
## 140 20 240

Seleção Avançada, agora com os Winning Days

# Which days did you make money on roulette?  
selection\_vector <- roulette\_vector > 0  
   
# Select from roulette\_vector these days  
roulette\_winning\_days <- roulette\_vector[selection\_vector]  
  
roulette\_winning\_days

## Wednesday Friday   
## 100 10