

RWorksheet_Delatina#4a2

Angel

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```
number <- is.na(as.numeric(readline(prompt = "Please enter a number between 1 and 50: ")))
```

```
## Please enter a number between 1 and 50:
```

```
if (number < 1 || number > 50) {  
  print("The number selected is beyond the range of 1 to 50")  
} else if (number == 20) {  
  print("TRUE")  
} else {  
  paste("The chosen number is:", number)  
}
```

```
## [1] "The chosen number is: TRUE"
```

```
minimum_bills <- function(price) {  
  bills <- c(1000, 500, 200, 100, 50)  
  num_bills <- 0  
  
  for (bill in bills) {  
    num_bills <- num_bills + price %/% bill  
    price <- price %% bill  
  }  
  
  cat("Minimum number of bills needed:", num_bills, "\n")  
}
```

```
snack_price <- as.integer(readline(prompt = "Enter the price of the snack (divisible by 50): "))
```

```
## Enter the price of the snack (divisible by 50):
```

```
minimum_bills(snack_price)
```

```
## Minimum number of bills needed: NA
```

```
students_data <- data.frame(  
  Name = c("Annie", "Thea", "Steve", "Hanna"),  
  Grade1 = c(85, 65, 75, 95),  
  Grade2 = c(65, 75, 55, 75),
```

```

Grade3 = c(85, 90, 80, 100),
Grade4 = c(100, 90, 85, 90)
)

```

```
students_data
```

```

##      Name Grade1 Grade2 Grade3 Grade4
## 1 Annie      85      65      85     100
## 2 Thea       65      75      90      90
## 3 Steve      75      55      80      85
## 4 Hanna      95      75     100      90

```

```

for (i in 1:nrow(students_data)) {
  scores <- as.numeric(students_data[i, 2:5])
  total <- sum(scores)
  avg_score <- total / length(scores)

  if (avg_score > 90) {
    cat(students_data$Name[i], "'s average grade this semester is", avg_score, "\n")
  }
}

```

```

for (j in 2:5) {
  total <- sum(students_data[[j]])
  avg_score <- total / nrow(students_data)

  if (avg_score < 80) {
    cat("The", j - 1, "th test was difficult.\n")
  }
}

```

```
## The 2 th test was difficult.
```

```

for (i in 1:nrow(students_data)) {
  scores <- as.numeric(students_data[i, 2:5])
  highest_score <- sort(scores, decreasing = TRUE)[1]

  if (highest_score > 90) {
    cat(students_data$Name[i], "'s highest grade this semester is", highest_score, "\n")
  }
}

```

```

## Annie 's highest grade this semester is 100
## Hanna 's highest grade this semester is 100

```