RWorksheet_#5

2023-12-12

```
student <- c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
pre_test <- c(55, 54, 47, 57, 51, 61, 57, 54, 63, 58)
post_test <- c(61, 60, 56, 63, 56, 63, 59, 56, 62, 61)

StudentScore <- data.frame(Student = student, Pre_Test = pre_test, Post_Test = post_test)
print(StudentScore)
```

```
##    Student Pre_Test Post_Test
## 1        1       55        61
## 2        2       54        60
## 3        3       47        56
## 4        4       57        63
## 5        5       51        56
## 6        6       61        63
## 7        7       57        59
## 8        8       54        56
## 9        9       63        62
## 10      10       58        61
```

```
#a
if (!requireNamespace("Hmisc", quietly = TRUE)) {
  install.packages("Hmisc")
}

if (!requireNamespace("pastecs", quietly = TRUE)) {
  install.packages("pastecs")
}

library(Hmisc)
```

```
##
## Attaching package: 'Hmisc'
```

```
## The following objects are masked from 'package:base':
##
##     format.pval, units
```

```
library(pastecs)
```

```
#2.
# Your data
fertilizer_levels <- c(10, 10, 10, 20, 20, 50, 10, 20, 10, 50, 20, 50, 20, 10)

# Convert to an ordered factor
ordered_fertilizer <- factor(fertilizer_levels, levels = c(10, 20, 50), ordered = TRUE)

# Print the result
```

```r
print("Original Data:")
```

```
## [1] "Original Data:"
```

```r
print(fertilizer_levels)
```

```
##  [1] 10 10 10 20 20 50 10 20 10 50 20 50 20 10
```

```r
print("Ordered Factor:")
```

```
## [1] "Ordered Factor:"
```

```r
print(ordered_fertilizer)
```

```
##  [1] 10 10 10 20 20 50 10 20 10 50 20 50 20 10
## Levels: 10 < 20 < 50
```