

5. Problem Statement

1. Test whether two vectors are exactly equal (element by element)

```
vec1 = c(rownames(mtcars[1:15,]))
vec2 = c(rownames(mtcars[11:25,]))
> vec1 = c(rownames(mtcars[1:15,]))
> vec2 = c(rownames(mtcars[10:25,]))
> identical(vec1, vec2)
[1] FALSE
```

2. Sort the character vector in ascending order and descending order

```
vec1 = c(rownames(mtcars[1:15,]))
vec2 = c(rownames(mtcars[11:25,]))
> sort(vec1)
[1] "Cadillac Fleetwood" "Datsun 710" "Duster 360" "Hornet 4 Drive" "Hornet Sportabout"
[6] "Mazda RX4" "Mazda RX4 Wag" "Merc 230" "Merc 240D" "Merc 280"
[11] "Merc 280C" "Merc 450SE" "Merc 450SL" "Merc 450SLC" "Valiant"
> sort(vec2)
[1] "AMC Javelin" "Cadillac Fleetwood" "Camaro Z28" "Chrysler Imperial" "Dodge Challenger"
[6] "Fiat 128" "Honda Civic" "Lincoln Continental" "Merc 280C" "Merc 450SE"
[11] "Merc 450SL" "Merc 450SLC" "Pontiac Firebird" "Toyota Corolla" "Toyota Corona"
> sort(vec1, decreasing = T)
[1] "Valiant" "Merc 450SLC" "Merc 450SL" "Merc 450SE" "Merc 280C"
[6] "Merc 280" "Merc 240D" "Merc 230" "Mazda RX4 Wag" "Mazda RX4"
[11] "Hornet Sportabout" "Hornet 4 Drive" "Duster 360" "Datsun 710" "Cadillac Fleetwood"
> sort(vec2, decreasing = T)
[1] "Toyota Corona" "Toyota Corolla" "Pontiac Firebird" "Merc 450SLC" "Merc 450SL"
[6] "Merc 450SE" "Merc 280C" "Lincoln Continental" "Honda Civic" "Fiat 128"
[11] "Dodge Challenger" "Chrysler Imperial" "Camaro Z28" "Cadillac Fleetwood" "AMC Javelin"
```

3. What is the major difference between str c() and paste()

show an example.
Compactly display the internal **structure** of an R object
Concatenate vectors after converting to character

```
> str(1:12)
int [1:12] 1 2 3 4 5 6 7 8 9 10 ...
> paste(1:12)
[1] "1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" "12"
```

4. Introduce a separator when concatenating the strings

```
> paste("Hello", "world", sep="|-| ")
[1] "Hello - world"
```