

3.2

1. Obtain the elements of the union between two character vectors.

```
vec1 = c(rownames(mtcars[1:15,]))
```

```
vec2 = c(rownames(mtcars[10:32,]))
```

```
> vec1
[1] "Mazda RX4"      "Mazda RX4 wag"    "Datsun 710"      "Hornet 4 Drive"   "Hornet Sportabout"
[6] "Valiant"        "Duster 360"       "Merc 240D"       "Merc 230"         "Merc 280"
[11] "Merc 280C"      "Merc 450SE"       "Merc 450SL"      "Merc 450SLC"      "Cadillac Fleetwood"
> vec2
[1] "Merc 280"        "Merc 280C"        "Merc 450SE"       "Merc 450SL"       "Merc 450SLC"
[6] "Cadillac Fleetwood" "Lincoln Continental" "Chrysler Imperial" "Fiat 128"         "Honda Civic"
[11] "Toyota Corolla"   "Toyota Corona"    "Dodge Challenger" "AMC Javelin"      "Camaro Z28"
[16] "Pontiac Firebird" "Fiat X1-9"        "Porsche 914-2"    "Lotus Europa"     "Ford Pantera L"
[21] "Ferrari Dino"     "Maserati Bora"    "Volvo 142E"
> union(vec1,vec2)
[1] "Mazda RX4"      "Mazda RX4 wag"    "Datsun 710"      "Hornet 4 Drive"   "Hornet Sportabout"
[6] "Valiant"        "Duster 360"       "Merc 240D"       "Merc 230"         "Merc 280"
[11] "Merc 280C"      "Merc 450SE"       "Merc 450SL"      "Merc 450SLC"      "Cadillac Fleetwood"
[16] "Lincoln Continental" "Chrysler Imperial" "Fiat 128"         "Honda Civic"      "Toyota Corolla"
[21] "Toyota Corona"    "Dodge Challenger" "AMC Javelin"     "Camaro Z28"       "Pontiac Firebird"
[26] "Fiat X1-9"        "Porsche 914-2"    "Lotus Europa"    "Ford Pantera L"   "Ferrari Dino"
[31] "Maserati Bora"    "Volvo 142E"
> |
```

2. Get those elements that are common to both vectors.

```
vec1 = c(rownames(mtcars[1:15,]))
```

```
vec2 = c(rownames(mtcars[10:32,]))
```

```
u<-union(vec1,vec2)
u
a<-match(vec1,vec2)
res<-vec2[na.omit(a)]
res
|
```

```
> a<-match(vec1,vec2)
> a
[1] NA NA NA NA NA NA NA NA NA NA 1 2 3 4 5 6
> res<-vec2[na.omit(a)]
> res
[1] "Merc 280"        "Merc 280C"        "Merc 450SE"       "Merc 450SL"       "Merc 450SLC"
[6] "Cadillac Fleetwood"
```

3. Get the difference of the elements between two character vectors.

```
vec1 = c(rownames(mtcars[1:15,]))
```

```
vec2 = c(rownames(mtcars[10:32,]))
```

```
setdiff(vec1,vec2)
|
```

```
> setdiff(vec1,vec2)
[1] "Mazda RX4"      "Mazda RX4 wag"    "Datsun 710"      "Hornet 4 Drive"   "Hornet Sportabout"
[6] "Valiant"        "Duster 360"       "Merc 240D"       "Merc 230"
> |
```

```
vec2 = c(rownames(mtcars[11:25,]))
```

```
> vec1 = c(rownames(mtcars[1:15,]))
```

[illegible]