5.2

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

Vec1 = c(rownames(mtcars[1:15,]))

Vec2 = c(rownames(mtcars[10:32,]))

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

> vec1

[1] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710" "Hornet 4 Drive" "Hornet Sportabout" "Valiant" "Duster 360"

[8] "Merc 240D" "Merc 230" "Merc 280" "Merc 280C" "Merc 450SE" "Merc 450SL" "Merc 450SLC"

[15] "Cadillac Fleetwood"

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

> vec2

[1] "Merc 280" "Merc 280C" "Merc 450SE" "Merc 450SL" "Merc 450SLC" "Cadillac Fleetwood"

[7] "Lincoln Continental" "Chrysler Imperial" "Fiat 128" "Honda Civic" "Toyota Corolla" "Toyota Corona"

[13] "Dodge Challenger" "AMC Javelin" "Camaro Z28" "Pontiac Firebird" "Fiat X1-9" "Porsche 914-2"

[19] "Lotus Europa" "Ford Pantera L" "Ferrari Dino" "Maserati Bora" "Volvo 142E"

> union(vec1,vec2)

[1] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710" "Hornet 4 Drive" "Hornet Sportabout" "Valiant"

[7] "Duster 360" "Merc 240D" "Merc 230" "Merc 280" "Merc 280C" "Merc 450SE"

[13] "Merc 450SL" "Merc 450SLC" "Cadillac Fleetwood" "Lincoln Continental" "Chrysler Imperial" "Fiat 128"

[19] "Honda Civic" "Toyota Corolla" "Toyota Corona" "Dodge Challenger" "AMC Javelin" "Camaro Z28"

[25] "Pontiac Firebird" "Fiat X1-9" "Porsche 914-2" "Lotus Europa" "Ford Pantera L" "Ferrari Dino"

[31] "Maserati Bora" "Volvo 142E"

2. Obtain the elements that are common to both vectors – using word intersection

Vec1 = c(rownames(mtcars[1:15,]))

Vec2 = c(rownames(mtcars[10:32,]))

|  |
| --- |
| > intersect(vec1,vec2)  [1] "Merc 280" "Merc 280C" "Merc 450SE" "Merc 450SL" "Merc 450SLC" "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)

[1] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710" "Hornet 4 Drive" "Hornet Sportabout" "Valiant" "Duster 360"

[8] "Merc 240D" "Merc 230"

> setdiff(vec2,vec1)

[1] "Lincoln Continental" "Chrysler Imperial" "Fiat 128" "Honda Civic" "Toyota Corolla" "Toyota Corona"

[7] "Dodge Challenger" "AMC Javelin" "Camaro Z28" "Pontiac Firebird" "Fiat X1-9" "Porsche 914-2"

[13] "Lotus Europa" "Ford Pantera L" "Ferrari Dino" "Maserati Bora" "Volvo 142E"

4. Test the quality of two character vectors.

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

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

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

> vec1

[1] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710" "Hornet 4 Drive" "Hornet Sportabout" "Valiant" "Duster 360"

[8] "Merc 240D" "Merc 230" "Merc 280" "Merc 280C" "Merc 450SE" "Merc 450SL" "Merc 450SLC"

[15] "Cadillac Fleetwood"

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

> vec2

[1] "Merc 280C" "Merc 450SE" "Merc 450SL" "Merc 450SLC" "Cadillac Fleetwood" "Lincoln Continental"

[7] "Chrysler Imperial" "Fiat 128" "Honda Civic" "Toyota Corolla" "Toyota Corona" "Dodge Challenger"

[13] "AMC Javelin" "Camaro Z28" "Pontiac Firebird"

> all.equal(vec1,vec2)

[1] "15 string mismatches"