

```
R version 4.5.1 (2025-06-13 ucrt) -- "Great Square Root"
Copyright (C) 2025 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64
```

```
R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.
```

```
Natural language support but running in an English locale
```

```
R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.
```

```
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
```

```
Type 'q()' to quit R.
```

```
> x <- c(10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20)
> x
[1] 10 11 12 13 14 15 16 17 18 19 20
> x <- 10:20
> y <- x + 2
> x
[1] 10 11 12 13 14 15 16 17 18 19 20
> y
[1] 12 13 14 15 16 17 18 19 20 21 22
> x1 <- seq(10, 20)
> x1
[1] 10 11 12 13 14 15 16 17 18 19 20
> z <- y * 3
> z
[1] 36 39 42 45 48 51 54 57 60 63 66
> answer <- (z - 6) / 3
>
> answer
[1] 10 11 12 13 14 15 16 17 18 19 20
> print(answer)
[1] 10 11 12 13 14 15 16 17 18 19 20
> answer <- (((10:20 + 2) * 3) - 6) / 3
> print(answer)
[1] 10 11 12 13 14 15 16 17 18 19 20
> vec1 <- seq(1, 12, by=0.5)
> print(vec1)
[1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10
.0 10.5 11.0 11.5 12.0
> vec2 <- (1:10)^3
> print(vec2)
[1] 1     8    27   64   125   216   343   512   729  1000
> v <- c(1, 2, 5, 4, 5, 6, 5, 7)
> count <- sum(v == 5)
> print(count)
[1] 3
> v1 <- c(1, 2, 3, 4, 5)
> v2 <- c(4, 5, 6, 7)
> v3 <- c(0, 4, 5, 8)
> common <- Reduce(intersect, list(v1, v2, v3))
> print(common)
[1] 4 5
> v <- c(1:20, 19:1)
> print(v)
[1] 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 19 18 17 16 15 14 13 12 11 10 9
8 7 6 5 4 3 2 1
> quotes <- c("Data is the new oil",
+           "Big data means big responsibility",
+           "Clean data is gold")
> contains_data <- grepl("data", quotes, ignore.case = TRUE)
> print(contains_data) # gives TRUE/FALSE for each sentence
[1] TRUE TRUE TRUE
```

```
> save.image("C:\\\\Users\\\\VICTUS\\\\OneDrive\\\\Desktop\\\\R_Lab_1")  
>
```