

Solutions

Quiz 2 : data structures

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1. is.vector can be used as a test to check if an object is a vector or not? false
2. How many types of atomic vector in R? 6
3. In a vector if all names are missing it will return)? Null
4. A factor is a _____ that contains _____ values and are built on top of _____ vector?
Vector, predefined, int
5. What is the level of the foll `x<-factor(c("x", "y", "z", "z", "a"))`? `x,y,z,a`
6. Dataframe is a list of _____ vectors and they are _____ dim and shares properties of _____ and _____? equal length, 2d, matrix, list
7. Follow the attributes of matrix? `dim()`, `nrow()`, `ncol()`
8. The basic data structure in R is a _____. It comes in two parts _____ and _____? vector, atomic vector, list
9. Numbers in R are treated as _____ precision real numbers? Double
10. Which of the foll is an object attribute? Dim, class length
11. `x<-6`, `Class(x)` is: double
12. Find the sum of `x<-(true,false,true,true)`

Ans. $\text{sum}(x)$
 $\text{as.numeric}(x)$
13. Convert `x<-c(1,2)` such that the structure is a int

`x<-c(1L,2L)`

Ans. x
14. `X<-c(1,2,4,5,6,5)` write a command to name them as a,b,c

 $x \leftarrow c(a=1.2, b=4.5, c=6.5)$

15. write a command which gives op array of

"1" a b c

one 1 3 5

two 2 4 6

"2" a b c

one 1 3 5

two 2 4 6

$b \leftarrow \text{array}(1:6, c(2, 3, 2))$
 $\text{row.names}(b) \leftarrow c("one", "two")$
 $\text{col.names}(b) \leftarrow c("a", "b", "c")$

16. Write a command to find the length of the above array?

$\text{dim}(b) = 2\ 3\ 2$

17. Write a command to get structure of the foll as $\text{char } x \leftarrow c(a, b, c)$?

$x \leftarrow c(c(a, b, c))$
string as factor = false

18. $\text{df} \leftarrow \text{data.frame}(x=1:3, y=\text{matrix}(1:9), \text{ncol}=3)$? Write a command to get col o/p 4, 5, 6

$\text{dfm}[, "y"] [, 2]$

19. Write a command to create foll o/p false, true, true, true, true, true for the vector $x \leftarrow 0:6$?

as.logical(x)

20. Write a command to create foll o/p "0", "1", "2", "3", "4", "5", "6", for the vector $x \leftarrow 0:6$?

as.character(x)