

Introduction to Data Science

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MODULE 2 QUIZ

Question 1

If you have two vectors `x <- c(1, 3, 5)` and `y <- c(3, 2, 10)`, what is produced by the expression `rbind(x, y)`?

- (a) a 2 by 2 matrix
- (b) a vector of length 2
- (c) a 2 by 3 matrix
- (d) a 3 by 3 matrix

Question 2

Let's say you have a list defined as `x <- list(2, "a", "b", TRUE)`. What does the expression `x[[1]]` give you?

- (a) a list containing the letter "a"
- (b) a character vector containing the element "2"
- (c) a numeric vector of length 1
- (d) a list containing the number 2

Question 3

What is the output of the following R script?

```
> x <- c(1, 2, NA, 4, 5, NA)
> good <- !is.na(x)
> mean(x[good])
```

- (a) 3.5
- (b) 6

(c) 3

(d) 2

Question 4

Let's say you have a vector `x <- c(3, 5, 1, 10, 12, 6)` and you want to set all elements of this vector that are less than 6 to be equal to zero. What R code achieves this?

(a) `x[x < 6] <- 0`

(b) `x[x >= 6] <- 0`

(c) `x[x == 6] <- 0`

(d) `x[x > 6] <- 0`

Question 5

A vector is defined using the following assignment statement: `y <- c(6, 1:3, NA, 12)` and you want to select all elements of this vector that are greater than 5. What R code achieves this?

(a) `y[y < 5]`

(b) `subset(y, y > 5)`

(c) `!is.na(y)>5`

(d) `y[!is.na(y)>5]`