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1. The first line gives the output: 1, 2, 3; while the second line of code gives the output c(1, 2, 3). This is because the quotations around the whole line of code means to quote it and display everything in quotes, not run it as an actual code. The first line is creating the vector 1, 2, 3.
2. C_1 is a variable because it is assigning the values 1, 2, 3 in order for c_1. It does not do anything else other than assign values.
3. C_2 is a variable because it is assigned the value c(1, 2, 3) to c_2. This does not perform any functions, just assigns that value to c_2.
4. They have different results because c_2 is equivalent to c(1, 2, 3) as a whole; while c_1 is 1, 2, and 3 as separate values. It assigned 3 values to c_1 while c_2 is a single quote.
5. The dimensions of the matrix are 2 columns and 3 rows.
6. mat_1[3,1]
7. mat_2 = matrix(my_vec, nrow = 2)
8. mat_3 = matrix(my_vec, nrow = 3)
9. R used the columns to organize my data, it filled in column 1 first and then column 2.
10. mat_4 = matrix(my_vec, nrow = 4, ncol = 5)
11. It started from the beginning and kept cycling through the numbers until the table was completed. It went from 1-6 then restarted at 1, finishing on 2 because that was the last number needed.
12. A, B, C
 - a.
 - i. Value
 - ii. Value
 - iii. null
 - iv. Value
 - v. Value
 - vi. Value
 - vii. Error
 - viii. Null
 - b.
 - i. It called for the value from the first item in the list.
 - ii. It called for the first numerical value in the list.
 - iii. It tried to call for the first value listed as 1 (in quotation marks specifically so the value should be called 1).
 - iv. It called the value from the list labeled as one.
 - v. A single value from the list labeled as one was pulled.
 - vi. A single value from the list labeled as one was pulled
 - vii. A single value from the list labeled as 1 was attempted to be pulled but could not because \$ does not allow for numerical values. This is the main difference between [[1]] and \$1 between lines 1 and 7.
 - viii. It tried pulling the value from the list labeled as 1, however none are called that.

c.

- i. R pulled the first value from the list.
- ii. R pulled the first numerical value from the list.
- iii. Null
- iv. R pulled the values from the list, under category one. There is only one value here, but it would have returned all in the second column of the list.
- v. R returned the first value from the list under the items listed as one.
- vi. R returned the first value from the list under the items listed as one, but with quotation marks so it can be a written value.
- vii. R tried pulling the first value from the list, would have been 5.2; but the \$ does not allow for numerical values. This is why it worked from one and "1", but not just 1. For 1, you need to use `[[1]]`.
- viii. Null

13. Lines 4, 5, and 6 return "five point two" because they call for the value listed as one. This is not the first column, but rather the second because we labeled them out of order.

14. Line 3 gives a null value because there is no part of the list labeled as 1, just column 1 or the column called one. Line 8 gives null for the same reason.