PBIO 294 in-class questions.   30 Aug 2017

Name _____

R introduction

1. Create a vector that is a sequence of from 1 to 100 and that is of length 200.

2. Multiply each element in this list by 2 and find the sum of the resulting vector.

3. Create a sequence of integers from 1 to 100.

4. Square each element of this vector and find the summation of this transformed vector.

5. Select all elements of the transformed vector (from 4 above) that are less than 50.

6. Create a 3 (rows) by 4 (cols) matrix of values 1:12

7. Multiple the component at the location [2,3] and the component at [3,2].

8. Name the rows (a,b,c) and the columns (1,2,3,4).

9. Create a 3 dimensional array that replicates the matrix created in 4 above three times in the 3rd dimensions. Continue the sequence of numbers to 48. Name the dimensions of the array.

10. Multiply the 2nd row of the 2 dimension by the [3,3] element of the 4th dimension.

11. Create a vector of (1,2) replicated to length 10. Transform the vector to a factor. Change the names of the level 1 to 'low' and level 2 to 'high'

12. Create a vector of integers 1 to 10. Create a data frame that combines this vector with the factor variable created in 11 above.

13. Name the columns of 12: 'id', 'treatment'.

14. Extract positions 1,2,3 and 7 of the treatment column.