Questionnaire

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This questionnaire helps me to assess your experience with programming and data analysis. It is not a test and it will not be graded. Please, answer the following question. Thank you very much for your collaboration.

Question 1

What programming languages do you know? For each programming language you know, please indicate the level of your knowledge with the labels *professional* (p), *intermediate* (m) and *beginner* (b).

Your Answer

Question 2

Have you made any experiences with programming languages such as R in previous courses or projects?

Your Answer

Question 3

What tools do you use when you have to work with data during your internships/practicals or during your Bachelor or Master thesis?

Your Answer

Question 4

Are you interested in learning how to program? Please rate the level of your interest with the labels *very high*, *rather high*, *low* and *very low*.

Your Answer

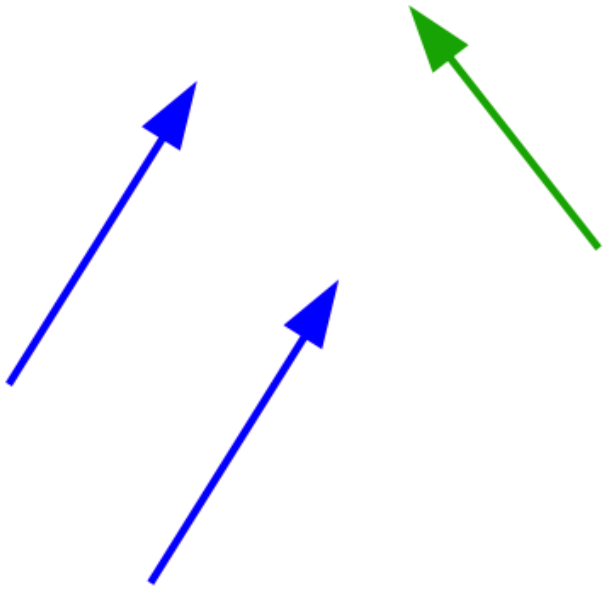
Question 5

What is the meaning of the following terms:

- Genotypefrequency:
- Allelefrequency:
- Breeding value:
- Additive genetic variance:

Question 6

How many different vectors do you see in the following picture?



Question 7

What is a matrix?

Your Answer

Question 8

Please convert the following system of linear equations into matrix-vector notation

$$\begin{aligned} x_1 + x_2 &= 2 \\ x_1 - x_2 &= 1 \\ x_1 &= 4 \end{aligned}$$

Question 9

How do you assign the vector $v = \begin{bmatrix} 10 \\ 15 \\ 21 \end{bmatrix}$ to the variable named `vec` in R?

Your Answer

Question 10

How do you assign the matrix $M = \begin{bmatrix} 1 & 2 \\ 3 & 4 \\ 5 & 6 \end{bmatrix}$ to the variable named `mat` in R?

Your Answer

Question 11

Let us assume, we have some data in a file called `data.csv`. The format of the data is in `comma separated values` (csv). How do you read the data from the file and assign it to the variable named `datadf` in R?

Your Answer

Question 12

We have measurements of body weight and height of dairy cows. What is the statistical approach that you can use to see whether the `height` of the cow is related to its `body weight`? What is the technique that you can use to estimate the strength of the relationship between the two variables `height` and `body weight`?

Your Answer