

Exercise 9

Task to perform:

Vectors with a large number of zeros are called sparse vectors. They are usually stored in a special form: order vector and the vector of values. Order vector indicates that the vector coordinates take the non-zero value in the following way: the occurrence of "1" in the order vector means that the corresponding position of the vector has a value different from zero, while the occurrence of "0" means that the coordinate has a value zero. The vector of values is a vector of nonzero coordinate values of the vector. Write a program that reads the sparse vectors stored in a standardized form, converts it to the form described above and calculates the value of their scalar product (use vectors in the new form).