

1. Write a program that will find the frequency distribution, the mode and the mean in the following situation:

A class of 15 students sit an exam in which they can achieve a score from 0 to 10. Read and store results in the exam for each student. Display the frequency distribution table. Find and display the mode and the mean. The mode is most frequently occurring value.

(It is possible to have more than one modal value)

2. Write a program that will load an array with 6 random values in the range 1 to 42. Adapt this program so that the array will only store 6 unique values.
3. In the last practical we completed the question below.

A plane has 14 rows of seats with 6 seats in each row. Write a program that will allow the user to book seats on the plane. The user should be able to book and cancel (unbook) seats, find out how many seats are currently free, how many seats are currently booked, and reset the seats (unbook all). The user will also want to see the current bookings.

Develop this question further so that the user can

- display the number of empty seats
- display the number of booked seats
- print out all the seats from a particular row only
- list all available window seats
- list all available aisle seats
- show seats that have two adjacent seats

It would also be a help to use methods. If you have implemented the code using an `int` array - modify it so that you are using a `boolean` array.

4. Implement and test the bubble sort.

Finish all previous practicals