

Practice using vectors.

(15 points total)

Write a complete c++ program that uses 2 vectors, 1 for names (strings) and 1 for grades (longs).

[2 points for declaring the vectors correctly]

- a. Ask the user for the number of name/grade pairs that will be entered. [1 point]
- b. Get each of the names and grades. [3 points]
- c. Display the mean of the grades [3 points]
- d. Display the median of the grades [3 points]
- e. Display the mode of the grades. [2 points] Display the names of the students with the mode as their grade. [1 point]
- f. 3 points bonus: Make part e work even when the grades list is multi modal.

Use the sort algorithm built into the C++ STL to sort your list when needed.

Example of sort from <http://www.cplusplus.com/reference/algorithm/sort/>

```
std::sort (myvector.begin(), myvector.begin()+4);
```