

## CS150 Exam Type Question

A data file "grades.txt" exists and contains student scores on a number of exams. The first line of the data file contains two integer values where the first number is the number of students in the file and the second number contains the number of student grades to be read for each student. The rest of the data file is each student's scores where each of the student scores is on a line by itself. Here is a sample data file:

```
4 3
90 82 88
78 73 80
98 92 91
77 73 83
```

There are at most 100 students and 10 exam scores for each student.

- a) You are to write function prototypes to perform each of the following:
1. Read in all of the data into a 2D array
  2. Print each student's scores where all scores for a student are printed on one line with each value right-justified in a field of 5
  3. Compute the average score on a given assignment
  4. Compute the average score for a particular student
- b) Write a complete C++ program that will call each of the above functions
- c) Write the function definition for each of the function prototypes 1. through 4. above