

6. The history teacher at your school needs help in grading a True/False test. The students' IDs and test answers are stored in a file. The first entry in the file contains answers to the test in the form:

**TFFTFFTTTTFFTFFTFTT**

Every other entry in the file is the student ID, followed by a blank, followed by the student's responses. For example, the entry:

**ABC54301 TFTFTFTT TFTFTFFTTFT**

indicates that the student ID is **ABC54301** and the answer to question 1 is True, the answer to question 2 is False, and so on. This student did not answer question 9. The exam has 20 questions, and the class has more than 150 students. Each correct answer is awarded two points, each wrong answer gets one point deducted, and no answer gets zero points. Write a program that processes the test data. The output should be the student's ID, followed by the answers, followed by the test score, followed by the test grade. Assume the following grade scale: 90%–100%, A; 80%–89.99%, B; 70%–79.99%, C; 60%–69.99%, D; and 0%–59.99%, F.

13. Write a program to calculate students' average test scores and their grades. You may assume the following input data:

```
Johnson 85 83 77 91 76
Aniston 80 90 95 93 48
Cooper 78 81 11 90 73
Gupta 92 83 30 69 87
Blair 23 45 96 38 59
Clark 60 85 45 39 67
Kennedy 77 31 52 74 83
Bronson 93 94 89 77 97
Sunny 79 85 28 93 82
Smith 85 72 49 75 63
```

Use three arrays: a one-dimensional array to store the students' names, a (parallel) two-dimensional array to store the test scores, and a parallel one-dimensional array to store grades. Your program must contain at least the following functions: a function to read and store data into two arrays, a function to calculate the average test score and grade, and a function to output the results. Have your program also output the class average.

14. (**Airplane Seating Assignment**) Write a program that can be used to assign seats for a commercial airplane. The airplane has 13 rows, with six seats in each row. Rows 1 and 2 are first class, rows 3 through 7 are business class, and rows 8 through 13 are economy class. Your program must prompt the user to enter the following information:
- a. Ticket type (first class, business class, or economy class)
  - b. Desired seat

Output the seating plan in the following form:

	A	B	C	D	E	F
Row 1	*	*	X	*	X	X
Row 2	*	X	*	X	*	X
Row 3	*	*	X	X	*	X
Row 4	X	*	X	*	X	X
Row 5	*	X	*	X	*	*
Row 6	*	X	*	*	*	X
Row 7	X	*	*	*	X	X
Row 8	*	X	*	X	X	*
Row 9	X	*	X	X	*	X
Row 10	*	X	*	X	X	X
Row 11	*	*	X	*	X	*
Row 12	*	*	X	X	*	X
Row 13	*	*	*	*	X	*

Here, \* indicates that the seat is available; X indicates that the seat is occupied. Make this a menu-driven program; show the user's choices and allow the user to make the appropriate choices.