Due Date: 8 January 2012 till midnight

Your instructor needs a program that can input three test scores and compute the average score and the letter grade. The grading policy is:

- Test-1: 25%
- Test-2: 35%
- Test-3: 40%

and

<table>
<thead>
<tr>
<th>Average Score</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>70-79</td>
<td>C</td>
</tr>
<tr>
<td>60-69</td>
<td>D</td>
</tr>
<tr>
<td>0-59</td>
<td>F</td>
</tr>
</tbody>
</table>

This program should input test scores for any number of students and stop the input if any of the test scores is negative.

Also, the instructor wants to see the class grade point average, the letter grade distribution.

In your program use the following functions that you will write:

- A function that receives three test scores of a student and returns the letter grade.
- Another function that receives the number of each letter grade and returns the class grade point average according to the following formula.

\[
\text{class\_grade\_point\_average} = \frac{4 \times \text{number\_of\_A\_grade} + 3 \times \text{number\_of\_B\_grade} + 2 \times \text{number\_of\_C\_grade} + 1 \times \text{number\_of\_D\_grade} + 0 \times \text{number\_of\_F\_grade}}{\text{total\_number\_of\_grades}}
\]

Sample run:

Enter three test scores: 75 88 70
Your average is 77.50
Your letter grade is C.

Enter three test scores: 95 80 85
Your average is 85.75
Your letter grade is B.

Enter three test scores: 75 -45 90
Number of A grades: 2
Number of B grades: 4
Number of C grades: 7
Number of D grades: 5
Number of F grades: 1

Total number of students: 19
Class average: 2.05

NOTES:
Your program should
- include comments to explain your program.
- be easy to follow.
- work for all possible inputs.
- include proper input and output messages.

Mail your homework to emreakkus@cankaya.edu.tr. Don’t forget to write your name.

Late homeworks will be graded out of $10 - \frac{d^2}{2}$ where $d$ is the number of late days.