BASIC INTRODUCTORY PROBLEMS

1. Program that will take three integer numbers from the keyboard but assign only the first and last inputs to variables and skip any assignment of the middle one.

Sample input	**Sample output**
20 50 100	First Value = 20, Last Value = 100
33 75 22	First Value = 33, Last Value = 22

2. Program that will check whether a triangle is valid or not, when the three angles (angle value should be such that, 0 < value < 180) of the triangle are entered through the keyboard.

[**Hint:** A triangle is valid if the sum of all the three angles is equal to 180 degrees.]

Sample input	**Sample output**
90 45 45	Yes
30 110 40	Yes
160 20 30	No
0 180 0	No

3. Program that will take the final score of a student in a particular subject as input and find his/her grade.

MARKS	GRADE
90-100	A
86-89	A-
82-85	B+
78-81	B
74-77	B-

MARKS	GRADE
70-73	C+
66-69	C
62-65	C-
58-61	D+
55-57	D

Keep in mind that if the mark is ***LESS THAN 55,*** He will receive an ***F.***

Sample input	Sample output
91.5	Grade: A
50	Grade: F

4. In a factory there are three categories of employees: X, Y, Z. The manager announced a bonus for the employees who have

- ➢ 12 years or more work experience and more than 5 family members, OR
- ➢ Less than 1000.50 BDT total family income per month

He is also generous to his bonus deprived employees who have a larger family. Thus, He has declared the bonus for

- ➢ For the employees of ‘Y’ and ‘Z’ categories who have more than 8 family members and has less than 1100.78 BDT total family income per month.
- ➢ However, if an employee is from ‘X’ category, he can avail the bonus having more than 5 family members.

Now you need to automate the system by writing a program to take following inputs from the user (employee) and notify him whether he is eligible for the bonus or not.

- ➢ Category (character)
- ➢ Years of work experience (integer)
- ➢ Number of family members (integer)
- ➢ Total family income per month (float)

Sample input	Sample output
X 11 6 1500	Will Receive the Bonus
Y 6 9 1500	Will Not Receive the Bonus