
# Decision Making

1. If cost price and selling price of an item is input through the keyboard, write a program to determine whether the seller has made profit or incurred loss. Also determine how much profit he made or loss he incurred.

2. Any integer is input through the keyboard. Write a program to find out whether it is an odd number or even number.

3. Any integer is input through the keyboard. Write a program to find out whether it is a positive number or negative number.

4. Any year is input through the keyboard. Write a program to determine whether the year is a leap year or not. (Hint: Use the % (modulus) operator)

5. A five-digit number is entered through the keyboard. Write a program to check if the number is a palindrome or not.

6. If the ages of Ram, Shyam and Ajay are input through the keyboard, write a program to determine the youngest of the three.

7. Write a program to check whether a triangle is valid or not, when the three angles of the triangle are entered through the keyboard. A triangle is valid if the sum of all the three angles is equal to 180 degrees.

8. Given the length and breadth of a rectangle, write a program to find whether the area of the rectangle is greater than its perimeter. For example, the area of the rectangle with length = 5 and breadth = 4 is greater than its perimeter.

9. Write a program to calculate Weekly pay of a person. Given a person's work hours for the week and regular hourly wage, calculate the total pay for the week, taking into account overtime. Hours worked over 40 are overtime, hence paid at 1.5 times the normal rate. While hours worked over 60 are paid double the normal rate.

10. Write a program, graduate.py, that prompts students for their percentage. Print their grades according to the following criteria:

| | |
|---|---|
| Percentage >=90 | A |
| Percentage >=80 | B |
| Percentage >=70 | C |
| Percentage >=60 | D |
| Percentage < 60 | F |