1. **Scenario:** A system checks if a user is eligible to vote based on their age.

   Write logic to ask the user for their age and determine if they are eligible to vote based on whether they are 18 or older.

   LOGIC :

   1. Get age as input from user using input()
   2. Use if-else condition to check age
   3. If age is greater than 18 print eligible to vote
   4. Else print not eligible to vote

2. **Scenario:** A program processes a list of numbers and needs to find the largest value.

   Write logic to identify and return the largest number from a given list.

   LOGIC :

   1. Create a list with multiple numbers
   2. Set the largest value as 0
   3. Using for loops iterate through the list
   4. If the number is greater then previous number set it as largest value
   5. After completion of the loop print the largest number

3. **Scenario:** A company provides employees with a 10% bonus if their salary exceeds $50,000.

   Write logic to determine the bonus amount based on the given salary.

   LOGIC:

   1. Get salary as input from user
   2. Check if the salary is greater then 50000
   3. If greater calculate 10% bonus
   4. Otherwise set bonus as zero
   5. Print the bonus

4. **Scenario:** A program evaluates a number to determine if it is even or odd.

   Write logic to check whether a given number is even or odd.

   LOGIC:

   1. Get a number as input
   2. Divide the number by 2

3. If remainder is zero print even number
4. Else print odd number

5. **Scenario:** A text-processing tool reverses a given word or sentence for formatting purposes.

   Write logic to take a word or sentence as input and produce its reversed version.

   LOGIC:
   1. Get the input word or sentence.
   2. Convert the input into a list of characters.
   3. Reverse the order of characters.
   4. Join the reversed characters into a string.
   5. Return the reversed word or sentence
6. **Scenario:** A grading system determines whether a student has passed or failed based on their score.

   Write logic to check if a student has passed a subject by scoring at least 40 marks.

   LOGIC:
   1. Get then input score
   2. Check weather the score is greateror equal than 40
   3. If yes print the result as pass
   4. Else print the result as fail
7. **Scenario:** A retail store offers a 20% discount if a customer's total order exceeds $100. Write logic to calculate the final amount to be paid after applying the discount.

   LOGIC:
   1. Get input of total order amount
   2. Check if it is greater then $100
   3. If yes calculate 20% discount
   4. Final amount = total - discount
   5. If no print the same amount

8. **Scenario:** A banking system processes withdrawal requests and ensures the user has enough balance.

   Write logic to check if a user has enough balance before allowing a withdrawal and update the remaining balance accordingly.

LOGIC:

1. Get the account balacnce
2. Get the withdrawal amount from the use
3. Check if withdrawal amount is less then account balance
4. If yes allow withdrawal
5. New balance = account balance – withdrawal
6. If no print insufficient balance

9. **Scenario:** A calendar system verifies whether a given year is a leap year based on standard leap year rules.

   Write logic to determine whether a given year is a leap year.

   LOGIC:

   1. Get the year to check for leap year
   2. If the year is divisible by 4 it is leap year
   3. If the year is divisible by 100 but not 400 its not a leap year
   4. If the year is not divisible by 100 but divisible 4 is leap year
   5. Else not a leap year

10. **Scenario:** A program filters out only even numbers from a given list.

    Write logic to extract and return only the even numbers from a list.

    LOGIC:

    1. Get the list
    2. Create a empty list to store even numbers
    3. Iterate the list thorough the loop
    4. If the value is divisible by 2
    5. Add the value to the empty list
    6. Print the list containing even numbers