# If-Else Questions:

1. **Check if Number is Double of Another**
   Take two numbers as input.
   If the second number is exactly double the first, print `"Second is double of first"`
   Else print `"Not double"`.
2. **Is it Uppercase?**
   Input a single character.
   If the character is uppercase (A–Z), print `"Uppercase Letter"`
   Else print `"Not Uppercase"`.
3. **Is Number a Square Number?**
   Take a number.
   If the square root of the number is an integer (e.g. 4, 9, 16), print `"Perfect Square"`
   Else print `"Not a Perfect Square"`
   *(Hint: Use int and ** operator)*
4. **Check for Last Digit being Zero**
   Input a number.
   If the last digit is 0, print `"Ends with Zero"`
   Else print `"Does Not End with Zero"`.

# If-Elif-Else Questions:

**Grade Checker**
1.Take marks as input (out of 100):

1. If marks >= 90 → print "A Grade"
2. If marks >= 80 → print "B Grade"
3. If marks >= 70 → print "C Grade"
4. Else → print "Fail"

2. **Traffic Light Decision**
Input color (Red, Yellow, Green):

- If Red → print "Stop"
- If Yellow → print "Wait"
- If Green → print "Go"
- Else → print "Invalid Signal"

3. **Check Number Range**
Input a number.

- If number < 10 → "Very Small"
- If number between 10 and 50 → "Small"
- If number between 51 and 100 → "Medium"
- Else → "Large"

# Nested If-Else Questions:

**1. Even or Odd and Divisible by 5**
Input a number.

1. If number is even:
    a. Check if divisible by 5 → print "Even and Divisible by 5"
    b. Else → print "Even but Not Divisible by 5"
2. Else:
    a. Print "Odd Number"

## 2. Login System with Role Check

Take username and password as input:

- If username is `"admin"`:
    - If password is `"1234"`:
        - Ask for role input: if role is `"manager"` → print `"Welcome Manager"`
        - Else → print `"Access Granted"`
    - Else → print `"Wrong Password"`
- Else → print `"Invalid Username"`

**3. Number Comparison with Nested Check**
Input two numbers a and b.

- If a > b:
    - Check if a - b > 10 → print "a is much greater"
    - Else → print "a is slightly greater"
- Else:
    - Print "a is not greater"

# List:

## 1. Create and Print List

Ask the user to enter 3 fruits' names one by one, and store them in a list.
Then print the complete list.
📌 *Hint: Use `input()` 3 times and store in a list.*

## 2. Replace an Item in the List

Create a list:

```
colors = ["red", "green", "blue"]
```

Ask the user to enter a new color. Replace `"green"` with the new color, and print the updated list.
📌 *Hint: Use index to replace item.*

## 3. Check if an Item Exists

Create a list of 5 cities:

```
cities = ["Karachi", "Lahore", "Islamabad", "Peshawar", "Quetta"]
```

Ask the user to enter a city name.
If the city is in the list, print `"City Found"`, else print `"City Not Found"`.

## 4. Find the Middle Element of a List

Take 3 numbers as input from user and store them in a list.
Print the **middle element** from the list.
📌 *Hint: Use index 1*

# Dictionary:

## 1. Create and Access Dictionary Elements

Create a dictionary of a student with the following keys and values:

```
student = {
  "name": "Ali",
  "age": 18,
  "grade": "A"
}
```

Now print the **student's name** and **grade** using dictionary keys.

## 2. Update Dictionary Value Based on User Input

Create a dictionary:

```
person = {
  "name": "Sara",
  "city": "Lahore"
}
```

Ask the user to enter a new city name.
Update the value of `"city"` in the dictionary and then print the updated dictionary.