# Student Task: Python Conditional Statements

## Problem 1:

Write a Python program that asks the user for their age and determines whether they are:

- A child (age < 13)
- A teenager (age between 13 and 19)
- An adult (age 20 or older)

## Problem 2:

Write a Python program that takes a numeric grade (0 to 100) as input and outputs the corresponding letter grade based on the following scale:

- A: 90 to 100
- B: 80 to 89
- C: 70 to 79
- D: 60 to 69
- F: Below 60

## Problem 3:

Write a Python program that takes two numbers as input and prints out which number is greater, or if they are equal.

## Problem 4: Employee Salary Classification

Write a Python program that asks for an employee's job level and salary. The program should classify the salary into different categories based on the job level:

- **For "Junior" level:**

- Salary below 30000: "Below average"
- Salary between 30000 and 50000: "Average"
- Salary above 50000: "Above average"

- **For "Senior" level:**
  - Salary below 50000: "Below average"
  - Salary between 50000 and 70000: "Average"
  - Salary above 70000: "Above average"

  **Input**:

  ```
  Enter job level (junior/senior): junior
  Enter salary: 32000
  ```

  **Output:**

  ```
  Salary classification: Average
  ```

## Problem 5: Loan Approval

Write a Python program that takes the applicant's credit score and annual income as input and determines if the loan application is approved:

- If the credit score is below 600, the application is rejected.
- If the credit score is 600 or above:
  - Annual income below 30000: "Requires further review"
  - Annual income between 30000 and 50000: "Approved"
  - Annual income above 50000: "Highly approved”

  **Input:**

  ```
  Enter credit score: 650
  Enter annual income: 40000
  ```

  **Output:**

  ```
  Loan status: Approved
  ```

## Problem 5: Traffic Light System

Write a Python program that takes the traffic light color and time (in seconds) as input. The program should determine the action:

- If the light is "Red":
  - If time is less than 10 seconds: "Prepare to stop"
  - If time is 10 seconds or more: "Stop"
- If the light is "Green":
  - If time is less than 10 seconds: "Go quickly"
  - If time is 10 seconds or more: "Go"
- If the light is "Yellow":
  - If time is less than 5 seconds: "Prepare to stop"
  - If time is 5 seconds or more: "Slow down"

**Input:**

```
Enter traffic light color (Red/Green/Yellow): Red
Enter time in seconds: 12
```

**Output:**

```
Action: Stop
```

## Problem 6: Temperature and Weather Condition

Write a Python program that takes the temperature and weather condition (Sunny/Rainy) as input and determines the appropriate advice:

- If the weather is "Sunny":
  - Temperature above 30°C: "It's hot. Stay hydrated."
  - Temperature between 20°C and 30°C: "It's a nice day. Enjoy!"
  - Temperature below 20°C: "It's cool. Wear a jacket."
- If the weather is "Rainy":
  - Temperature above 20°C: "Carry an umbrella."

- Temperature between 10°C and 20°C: "Wear a raincoat."
- Temperature below 10°C: "Wear warm clothes and a raincoat."

**Input:**

```
Enter weather condition (Sunny/Rainy): Rainy
Enter temperature in °C: 15
```

**Output:**

```
Advice: Wear a raincoat.
```

## Problem 7:

Write a Python program that asks the user for the temperature in Celsius and converts it to Fahrenheit. Then, determine if the temperature is classified as:

- Freezing (below 32°F)
- Cold (32°F to 59°F)
- Warm (60°F to 79°F)
- Hot (80°F and above)

Use the formula: F=C×95+32F = C \times \frac{9}{5} + 32F=C×59+32