

Python Conditional Statements Practice Questions

Enhance your understanding of conditional statements in Python (`if`, `elif`, `else`) with these practice questions.

Question 1: Grade Calculation and Pass/Fail Status

Description:

Write a program that takes a score (an integer between 0 and 100) from the user and determines the pass or fail status according to the following criteria:

- If the score is between 90 and 100, display “Excellent”.
- If the score is between 70 and 89, display “Good”.
- If the score is between 50 and 69, display “Pass”.
- If the score is below 50, display “Fail”.

Sample Input and Output:

Input:

Please enter your score: 85

Output:

Status: Good

Question 2: Identify Even or Odd Number

Description:

Write a program that takes an integer from the user and determines whether it is even or odd. If the number is even, display “The number is even.” Otherwise, display “The number is odd.”

Sample Input and Output:

Input:

Please enter an integer: 7

Output:

The number is odd.

Question 3: Cinema Ticket Price Calculation

Description:

Write a program that calculates the price of a cinema ticket based on the user's

age. The pricing is as follows:

- Under 5 years: Free
- 5 to 12 years: \$10
- 13 to 17 years: \$15
- 18 years and older: \$20

Sample Input and Output:

Input:

Please enter your age: 14

Output:

Ticket price: \$15

Question 4: Determine the Largest Number

Description:

Write a program that takes three different numbers from the user and determines the largest number among them.

Sample Input and Output:

Input:

Please enter three numbers: 12 45 7

Output:

The largest number is: 45

Question 5: Triangle Type Detection

Description:

Write a program that takes the lengths of three sides of a triangle from the user and determines whether the triangle is equilateral, isosceles, or scalene.

Sample Input and Output:

Input:

Please enter the lengths of the three sides of the triangle: 5 5 5

Output:

The triangle is equilateral.

Question 6: Employee Salary Calculation

Description:

Write a program that calculates an employee's salary based on their hours worked and hourly wage. If the hours worked exceed 40, overtime is paid at 1.5 times the hourly rate.

Sample Input and Output:

Input:

```
Please enter the number of hours worked: 45
Please enter the hourly wage: 20
```

Output:

```
Total salary: $950
```

Question 7: Determine Age Category

Description:

Write a program that determines the user's age category based on their age:

- Under 13 years: "Child"
- 13 to 19 years: "Teenager"
- 20 to 64 years: "Adult"
- 65 years and older: "Senior"

Sample Input and Output:

Input:

```
Please enter your age: 25
```

Output:

```
Age category: Adult
```

Tips for Implementation:

- Use `if`, `elif`, and `else` statements to handle conditions and make decisions.
- Test your program with different input values to ensure it handles various cases correctly.
- Pay attention to the conditions and rules specified in each question to ensure your program behaves as expected.