If else Assignment - 2

Q1. W.A.P to check if a number is positive, negative, or zero.

Input: enter a number: 8

Output: positive

Q2. W.A.P to check if a number is even or odd.

Input: 9

Output: odd

Q3. W.A.P to Determine grade based on marks.

marks >= 90: Grade A

marks >= 80: Grade: B

Marks >= 70: Grade C

marks >= 60: Grade: D

otherwise,

Grade: E

Test Case 1:

Input: 50

Output: E

Q4. W.A.P to Check if a number is divisible by both 3 and 5.

Input: 15

Output: Divisible

Q5. program to determine if a person is a child, teenager, adult, or senior based on their age

age <= 12:"Child"

age <= 19: "Teenager"

age <= 64: "Adult"

age > = 64:"Senior"

Test Case 1:

Enter age: 8

Child

Test Case 2:

Enter age: 16

Teenager

Q6. Check if a year is a leap year.

Test case 1:

Input: 1600

Output: Leap year

Test Case 2:

Input: 1900

Output: Not a leap year.

Q7. W.A.P to find the largest of three numbers.

Input: enter 3 number: 78, 56, 100

Output: greatest out of 3: 100

Q8. W.A.P Determine if a triangle is equilateral, isosceles, or scalene.

Input: enter 3 sides of a triangle 7, 7, 1

Output: isosceles

Q9. Determine if a year is a century year.

Example of century year 1800, 2000, 2100 many more…

Q10.Write a Python program that accepts three numbers and check All numbers are equal or not.

Q11. Write a python program which takes x and y as a input and determine the quadrant of a point in a coordinate system as per the given information below:

x> 0, y> 0: first quadrant

x < 0, y > 0: second quadrant

x< 0, y<0: third quadrant

x> 0, y < 0: fourth quadrant

Test Case 1:

Input: x = 8 and y = -1

Output: fourth quadrant

Q11. Determine the season based on month

3 <= month <= 5; "Spring"

6 <= month <= 8"Summer"

9 <= month <= 11"Autumn"

Otherwise,

"Winter"

Test Case 1:

Input: 7

Output: Summer

Q12. Write a python program which takes three input and check if third number is within a given range between first and second number.

INPUT: LOWER RANGE: 10

UPPER RANGE: 89

INPUT_NUMBER: 77

OUTPUT: 'YES'

Q13. Input 3 angle and determine if they form a triangle or not.

Q14. program that reads 2 numbers and an arithmetic operator like +, -, *, /, % and display the computed result:

Example

Enter the 1 number: 5

Enter the 2 number: 2

Enter the operator: *

Output: 10.0

Q15. Write a python program to input cost price and selling price of a product and check profit or loss. Also calculate total profit or loss using if else.

Test case 1:

input cost price: 1000

Input selling price: 1500

Output:

Profit is 500

Q16. Write a python program to input week number and print week day.

Test case 1:

Input: 1

Output: Monday

Test case 2:

Input: 7

Output: Sunday

Q17. Write a python program that accepts three numbers from the user and check if numbers are in "increasing" or "decreasing" order.

Test Case 1:

Input: 10,17,20

Output: Increasing Order.

Test case 2:

Input: 90,69,36

Output: Decreasing Order

Q18. While purchasing certain items, a discount of 10% is offered if the quantity purchased is more than 100. If quantity and price per item are input through the keyboard, write a program to calculate the total expenses.

Q19. Write a program to input electricity unit charges and calculate total electricity bill

according to the given condition:

- For first 50 units Rs. 0.50/unit
- For next 150 units Rs. 0.75/unit
- For next 250 units Rs. 1.20/unit
- For unit above 450 Rs. 1.50/unit
- An additional surcharge of 20% is added to the bill

Test Case 1:

Input: 100 units

Expected Output:

Rs. 62.5

With Surcharge: Rs. 75

Test Case 3:

Input: 300 units

Expected Output:

Rs. 257.5

With Surcharge: Rs. 309

Q20. Write a python program which accept the kilometres covered and calculate the bill according to the following criteria:

First 10 Km -> Rs11/km

Next 90Km -> Rs 10/km

After that -> Rs9/km

Test Case 1:

Input: 50

Output: 510

Test Case 2:

Input: 100

Output: 1010