PRACTICE NO.2

LET'S GO

QUESTION 1

PART A

Write a code that gets the amount of fuel consumed and calculates it for each subscriber according to the following instructions:

- For the first 600 cubic meters consumed per month, the cost per cubic meter is 1,352 Rials.
- From 600 cubic meters to 1000 cubic meters, the cost per cubic meter is 5195 Rials.
- From 1000 cubic meters onwards, the cost is 19959 Rials per cubic meter.

QUESTION 1

PART B

National Gas Company has categorized Iranian cities into three categories: cold cities, temperate cities and warm cities. The cost of gas consumption in each region is as follows:

- In cold cities:

For the first 600 cubic meters consumed per month, the cost per cubic meter is 1,352 Rials. From 600 cubic meters to 1000 cubic meters, the cost per cubic meter is 5195 Rials.From 1000 cubic meters onwards, the cost is 19959 Rials per cubic meter.

QUESTION 1

PART B

- In temperate cities:

For the first 500 cubic meters consumed per month, the cost per cubic meter is 1352 Rials. From 600 cubic meters to 900 cubic meters, the cost per cubic meter is 5195 Rials. From 900 cubic meters onwards, the cost is 19959 Rials per cubic meter.

- In tropical cities:

For the first 350 cubic meters consumed per month, the tariff per cubic meter is 1352 Rials.From 600 cubic meters to 750 cubic meters, the tariff per cubic meter is 5195 Rials.From 750 cubic meters onwards, the tariff is 19959 Rials per cubic meter.

QUESTION 1

PART B

Write a code that gets the amount of fuel consumed and the region of each subscriber and calculates the consumption cost of that subscriber according to the instructions above.

QUESTION 2

- Part A: Write a code that displays the number of divisors of a given number.
- Part B: Write a code that determines whether the given number is prime or not.
- Part C: Write a code that takes a number and displays the number of prime numbers smaller than it.

UPDATES!

- In Question 1: Do part B!

- In Question 2: In case of odd numbers, we can only check numbers equal or less than one third of given number, instead of it's half. Verify this claimant and make changes in the code to use this algorithm for odd numbers.
- In Question 2: Do part B!