Problem – 1: **Average Electricity Bill**

For a house electricity bills for the last three months have been 230 taka, 325 taka and 572 taka. What is the average monthly electricity bill over the three-month period? Store the information for the months Jan, Feb and Mar and calculate the mean in a variable named avg\_bill and print the result.

Problem – 2: **Required Tiles**

Two parts of a floor need tiling. One part is **9 tiles wide by 7 tiles long**, the other is **5 tiles wide by 7 tiles** long. Tiles come in packages of 6. Area of each tile is 1**.**

1. How many tiles are needed?
2. You buy **17 packages of tiles containing 6 tiles** each. How many tiles will be left over?

Problem – 3: Read two integers from STDIN and print three lines where the two variables should be **first** & **second** and the results should be saved in three different variables such as **sum, difference, product**:

1. The first line contains the sum of the two numbers.
2. The first line contains the difference of the two numbers.
3. The third line contains the product of the two numbers.

Problem – 4: **Which city is denser, Chittagong or Sylhet?**

Area of the Chittagong and Sylhet is **161.8** & **26.8**

Number of people in Sylhet and Chittagong is **12.1 million** & **2.592 million**

Find out the population densities in both the cities to compare which city has the most population density? Print **True** or **False** using comparison operators.

Problem – 5: **Write a Server Log Message**

You have a print a server log message such as **Anik accessed the site** [**http://www.northsouth.edu**](http://www.northsouth.edu) **at 05:30 pm** where name of the person should be stored in variable **user\_name**, time of access should be stored in variable named **time\_stamp** and the hyperlink should be stored in variable named **url**.

Problem – 6: **String Methods**

**verse** = "If you can keep your head when all about you\n Are losing theirs and blaming it on you,\nIf you can trust yourself when all men doubt you,\n But make allowance for their doubting too;\nIf you can wait and not be tired by waiting,\n Or being lied about, don’t deal in lies,\nOr being hated, don’t give way to hating,\n And yet don’t look too good, nor talk too wise:"

1. What is the length of the string variable verse?
2. What is the index of the first occurrence of the word 'and' in verse?
3. What is the index of the last occurrence of the word 'you' in verse?
4. What is the count of occurrences of the word 'you' in the verse?