**Programs**

1. Write a program that simulates rolling a pair of dice. You can simulate rolling one die by choosing one of the integers 1, 2, 3, 4, 5, or 6 at random. The number you pick represents the number on the die after it is rolled.

Your program should report the number showing on each die as well as the total roll. For example:

**Output:**

The first die comes up 3

The second die comes up 5

Your total roll is 8

1. Write a program that asks the user's name, and then greets the user by name. Before outputting the user's name, convert it to upper case letters. For example, if the user's name is Fred, then the program should respond "Hello, FRED, nice to meet you!".
2. Write a program that helps the user count his change. The program should ask how many quarters the user has, then how many dimes, then how many nickels, then how many pennies. Then the program should tell the user how much money he has, expressed in dollars.

One quarter is worth 0.25 dollars

A dime is worth 0.10 dollars

A nickel is 0.05 dollars

A penny is 0.01 dollars

1. If you have N eggs, then you have N/12 dozen eggs, with N%12 eggs left over. (This is essentially the definition of the / and % operators for integers.) Write a program that asks the user how many eggs she has and then tells the user how many dozen eggs she has and how many extra eggs are left over.
2. A gross of eggs is equal to 144 eggs. Extend your program so that it will tell the user how many gross, how many dozen, and how many left over eggs she has. For example, if the user says that she has 1342 eggs, then your program would respond with

Your number of eggs is 9 gross, 3 dozen, and 10

since 1342 is equal to 9\*144 + 3\*12 + 10.

1. WAP to find the average of student marks in three subjects.
2. WAP that reads the user's first name and last name, separated by a space. It then prints the user's first and last names separately, along with the number of characters in each name. It also prints the user's initials.
3. WAP that will read one line of input typed by the user.It will print the words from the input, one word to a line. A word is defined to be a sequence of letters. All non-letters in the input are discarded.
4. WAP that finds an integer between 1 and 10000 that has the largest number of divisors. It prints out the maximum number of divisors and an integer that has that many divisors.
5. WAP that counts the number of divisors for integers in the range to 1 to 10000. It finds the maximum divisor count. It outputs the maximum divisor count and a list of all integers in the range that have the maximum number of divisors.
6. WAP that evaluates simple expressions such as 2 + 2 and 34.2 \* 7.81, consisting of a number, an operator, and another number. The operators +, -, \*, / are allowed. The program will read and evaluate expressions until the user inputs a line that starts with the number 0.
7. WAP that simulates rolling a pair of dice until they come up snake eyes. It should report how many rolls were needed.