

Additional Exercises:

1. Write a program that calculates the average rainfall for three months. The program should ask the user to enter the name of each month, such as June or July, and the amount of rain (in inches) that fell each month. The program should display a message similar to the following:

The average rainfall for June, July and August is 6.72 inches.

2. A bag of cookies holds 40 cookies. The calorie information on the bag claims that there are 10 “servings” in the bag and that a serving equals 300 calories. Write a program that asks the user to input how many cookies he or she actually ate and then reports how many total calories were consumed.
3. Write a program that asks the user to enter the monthly costs for the following expenses incurred from operating his or her automobile: loan payment, insurance, gas, oil, tires, and maintenance. The program should then display the total monthly cost of these expenses, and the total annual cost of these expenses.
4. Joe’s Pizza Palace needs a program to calculate the number of slices a pizza of any size can be divided into. The program should perform the following steps:
 - i) Ask the user for the diameter of the pizza in inches.
 - ii) Calculate the number of slices that may be taken from a pizza of that size.
 - iii) Display a message telling the number of slices.

To calculate the number of slices that may be taken from the pizza, you must know the following facts:

- Each slice should have an area of 14.125 inches.
- To calculate the number of slices, simply divide the area of the pizza by 14.125.
- The area of the pizza is calculated with this formula
$$\text{Area} = \pi r^2$$

Make sure the output of the program displays the number of slices in fixed point notation, rounded to one decimal place of precision.

5. Modify the above program so that it reports the number of pizzas you need to buy for a party if each person attending is expected to eat an average of four slices. The program should ask the user for the number of people who will be at the party and for the diameter of the pizzas to be ordered. It should then calculate and display the number of pizzas to purchase.

6. Write a program that plays a word game with the user. The program should ask the user to enter the following:

- His or her name
- His or her age
- The name of a city
- The name of a college
- A profession
- A type of animal
- A pet's name

After the user has entered these items, the program should display the following story, inserting the user's input into the appropriate locations:

There once was a person named NAME who lived in CITY. At the age of AGE, NAME went to college at COLLEGE. NAME graduated and went to work as a PROFESSION. Then, NAME adopted ANIMAL named PETNAME. They both lived happily ever after!