PL*SQL

Exercise 4

1. Write a program containing a loop that iterates from 1 to 1000 using a variable *I*, which is incremented each time around the loop. The program should output the value of *I* every hundred iterations (i.e., the output should be 100, 200, etc). Display the output on the screen using dbms_output.put_line.

2. Write a program that examines all the numbers from 1 to 999, displaying all those for which the sum of the cubes of the digits equal the number itself. Display the output on the screen using dbms_output.put_line.

3. Write a PL*SQL block that reads in a minimum and maximum value for a radius, along with an increment factor, and generates a series of radii by repeatedly adding the increment to the minimum until the maximum is reached. For each value of the radius, compute and display the circumference, area, and volume of the sphere. (Be sure to include both the maximum and the minimum values.). Validate each of the input values to be sure they are positive. If the minimum is typed in place of the maximum, swap the values within the program, and continue execution. Display the results on the screen using dbms_output.put_line.

4. Allow any positive integer to be typed in. The program should count how many times the number has to be doubled before it reaches 1 million. Display the results on the screen using dbms_output.put_line.

5. A *palindrome* is a word that is spelled the same forward and backward, such as *level*, *radar*, etc. Write a program to read in a five letter word from the user and determine whether it is a palindrome. Display the results on the screen using dbms_output.put_line.

6. Modify the above program to accept a variable length word. This requires determining how many characters are read in.

7. Write a program to read in a number and print it out digit by digit, as a series of words. For example, the number 523 would be printed as "five two three". Use decode function within a for loop. Display the results on the screen using dbms_output.put_line.