

Directed Activities: After each activity demonstrate your work for the instructor.

Question 01) Printing odd numbers. Write Python code that asks the user for a positive number, then prints all the odd numbers from 0 to the number provided by the user.

For example, if the user provides the number 7, then you should print the values:

1  
3  
5  
7

\*You can use 'range()' with three numbers

\*For this question, create a file with the name: Lab02\_Question01.py

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Question 02) Sum of squares. Write Python code that calculates the sum of the squares for the numbers in a given range.

Your code should allow the user to input the starting and ending numbers within the range. For example, if the user inputs 3 as the lower range and 5 as the upper range, the function should return the result of the equation  $3^2 + 4^2 + 5^2$ , which is 50.

\*For this question, create a file with the name: Lab02\_Question02.py

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Question 03) Sum of threes. Write Python code that asks the user for an upper bound and calculates the sum of all multiples of three less than or equal to the upper bound. For example, if the upper bound provided by the user is either 15, 16, or 17, the function should calculate the sum of 3, 6, 9, 12 and 15; your code should print the result after calculating the sum of these numbers.

\*You can use 'range()' with three numbers

\*For this question, create a file with the name: Lab02\_Question03.py

Question 04) Finding the power using a loop. Write Python code that asks the user for two values: base and power, then your code should calculate the value of base raised to the power. For example, if the user inputs 4 for the base, and 3 for the power, then your code should output 64 (which is  $4^3$ )

You cannot use `**` or the function `pow()`. You have to write a loop that multiplies the base by itself 'power' number of times.

\*For this question, create a file with the name: Lab02\_Question04.py

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Question 05) Write Python code that calculates the sum of cubes for a series of numbers entered by the user. The program should first prompt the user for how many numbers are to be (cubed and) summed.

For example, say the user inputs 3 for the number of numbers to be cubed and summed, then the program should prompt the user to input these numbers:

Give me a number: (say the user enters 4)

Give me a number: (say the user enters 2)

Give me a number: (say the user enters 5)

Your program should print the sum of the cubes for the three numbers, which is 197 ( $4^3 + 2^3 + 5^3$ )

\*For this question, create a file with the name: Lab02\_Question05.py

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Upload the files to OAKS under the Assignments section.

Remove any files and folders you created on the desktop. Then empty your recycle bin. Log out of your Cougars account.

Log off of the computer you are using.