Loops - Drawing a tree

In this programming assignment, you'll draw a tree based on user specifications. The starter program draws a tree, using a triangle with three levels as the leaves and a rectangle with four levels as the trunk.

1. Modify the above program to ask the user to specify a number of tree trunk levels (“Enter trunk height: “), then use a loop to draw that many levels.

Testing suggestion: If the user specifies 4 tree trunk levels, then the original tree should be drawn.

2. Modify the program again to ask the user to specify a number of tree trunk *'s per level (“Enter trunk width: “), then use a loop to draw that many *'s per level.

You’ll need to use a nested loop in which the inner loop draws the *'s, and the outer loop iterates a number of times equal to the number of tree trunk levels.

3. Modify the program to ask the user to specify a number of tree leaves levels (“Enter leaves width: “), then use a nested loop to draw that many levels.

You’ll need two inner loops for drawing the leaves: one for outputting spaces and one for outputting *'s. The outer loop iterates a number of times equal to the number of tree leaves levels.

Note: Your program only needs to support odd-numbered widths, like the below examples.

Here is an example program execution (user input is highlighted here for clarity):

Enter trunk height: 7
Enter trunk width: 3
Enter leaves width: 5
    *
    ***
    *****
    ***
Here is an example program execution (user input is highlighted here for clarity):
Enter trunk height: 9
Enter trunk width: 5
Enter leaves width: 11
    *
    ***
    ******
    *********
    ***********
    *****
    *****
    *****
    *****
    *****
    *****
    *****
    *****
    *****

Here is an example program execution (user input is highlighted here for clarity):
Enter trunk height: 3
Enter trunk width: 1
Enter leaves width: 9
    *
    ***
    ******
    *********
    ***********
    *
    *
    *