

3.2.a pseudocode:

Setup given functions to find volume for witchHatCandy and PumpkinCandy.

- witchHatCandy takes the parameters Radius and Height
- PumpkinCandy takes the parameters of radius in the x, y, and z directions

PumpkinCandy function(parameters of doubles):

Calculate volume using $\text{Volume} = \frac{4}{3}\pi abc$, where a,b, and c are the radii along the x, y, and z axes respectively. After return the volume that was calculated

witchHatCandy function(parameters of doubles):

calculate the volume using $\text{volume} = \frac{1}{3}\pi r^2 h$, where r is the radius of the base, and h is the height. After return the volume that was calculated.

Setup the main function:

Ask the user to input variables for each of the parameters of each function.

Inside the main function call the functions described above and return the output of the volumes from each function from the inputs of the user.

Get the answer.

3.2.b

Function 1(pumpkinCandy)

Case 1: `calculateVolumeOfPumpkinCandy(1,1,1)`

`Volume = 4/3(pi) (1) (1) (1)`

`Volume = 4.18879.`

Case 2: `calculateVolumeOfPumpkinCandy(2,2,2)`

`Volume = 4/3(pi) (2) (2) (2)`

`Volume = 33.5103`

Function 2(witchHatCandy)

Case 1: `calculateVolumeOfWitchHatCandy(1,1);`

`Volume = 1/3(pi) (1^2) (1)`

`Volume = pumpkinCandy volume is: 1.0472`

Case 2: `calculateVolumeOfWitchHatCandy(1,2);`

`Volume = 1/3(pi) (1^2) (2)`

`Volume = pumpkinCandy volume is: 2.0944`

3.2.c

`Assert(calculateVolumeOfWitchHatCandy(1,1)) == 1.0472; //This is correct and returns true`

`Assert(calculateVolumeOfPumpkinCandy(1,1,1))== 4.18879; //This is correct and returns true`

