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CS 176L

House Painting Pseudocode

Import Scanner

Ask user for inputs:

* Print “Please enter the cost per square foot”
* Input Cost per square foot, save as costPerSqft
* Print “Please enter the length of the house”
* Input length of the house, save as houseLength
* Print “Please enter the width of the house”
* Input width of the house, save as houseWidth
* Print “Please enter the height of the house”
* Input height of the house, save as houseHeight
* Print “Please enter the number of windows”
* Input number of windows, save as numWindows
* Print “Please enter the length of the window”
* Input length of window, save as windowLength
* Print “Please enter the width of the window”
* Input width of window, save as windowWidth
* Print “Please enter the number of doors”
* Input number of doors, save as numDoors
* Print “Please enter the length of door”
* Input length of doors, save as doorLength
* Print “Please enter the width of the door”
* Input width of door, save as doorWidth

Calculations

* Space taken by windows: Multiply window width and length and multiply that result by the total number of windows, windowWidth\*windowLength\*numWindows, save as windowSqft
* Space taken by doors: Multiply door width and length and multiply that result by the total number of doors, doorWidth\*doorLength\*numDoors, save as doorSqft
* Space taken by normal side of house: Multiply house width and house length and multiply that result by 2, houseWidth\*houseLength\*2, save as normalSideHouseSqft
* Space taken by peak side of house: (Multiply length of house and width of house) + (.5(length of house\*(height of house – width of house)) MULTIPLY THIS RESULT BY 2 TO FIND TOTAL SQ FT OF PEAK SIDE, (houseLength\*houseWidth) + (.5(houseLength\*(houseHeight – houseWidth)) \*2, save as peakSideHouseSqft
* Adding Window sqft and Door sqft: windowSqft + doorSqft, save as subtractedSpace
* Adding All sides of house sqft: normalSideHouseSqft + peakSideHouseSqft, save as totalSqftOfHouse
* Find out exact sqft: totalSqftOfHouse – subtractedSpace, save as exactHouseSqft
* Multiply cost per square foot by square foot of house: costPerSqft \* exactHouseSqft, save as totalCost

Output

Print “Your total paintable surface area is exactHouseSqft”

Print “Your estimate is totalCost”