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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”