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House Painting Algorithm

Inputs:

Input cost charged by painter per square foot from user, store as costSqFt
Input length of house from user, store as houseLength
Input width of house from user, store as houseWidth
Input height of house from user, store as houseHeight
Input number of windows from user, store as numWindows
Input window length from user, store as windowLength
Input window width from user, store as windowWidth
Input number of doors from user, store as numDoors
Input door length from user, store as doorLength
Input door width from user, store as doorWidth

Calculations:

Calculate $2 * (\text{houseLength} * \text{houseWidth} + \frac{1}{2} * (\text{houseLength} * (\text{houseHeight} - \text{houseWidth})))$, store as peakSideFootage
Calculate $2 * (\text{houseLength} * \text{houseWidth})$, store as normalSideFootage
Calculate $\text{numWindows} * (\text{windowLength} * \text{windowWidth})$, store as windowFootage
Calculate $\text{numDoors} * (\text{doorLength} * \text{doorWidth})$, store as doorFootage
Calculate $(\text{peakSideFootage} + \text{normalSideFootage}) - (\text{windowFootage} + \text{doorFootage})$, store as totalSquareFootage
Calculate $\text{totalSquareFootage} * \text{costSqFt}$, store as totalCost

Outputs:

Note: Done differently in program, but kept simpler here for sake of clarity

Output "Your total paintable surface area is " + totalSquareFootage + " square feet."
Output "Your estimate is " + totalCost + " dollars."