

Inputs

- Store width as widthOfHouse
- Store length as lengthOfBase
- Store height as heightOfHouse
- Store number of windows as numberOfWindows
- Store window dimensions as windowLength and windowWidth
- Store number of doors as numberOfDoors
- Store door dimensions as doorWidth and doorLength
- Store the cost of paint per square foot as costPerSquareFoot

Calculations

- Find square feet of side of house
 - $\text{lengthOfBase} * \text{widthOfHouse}$
 - $\text{squareFeetOfHouse} = \text{lengthOfBase} * \text{widthOfHouse}$
- Find square feet of height before house
 - $\text{lengthOfBase} * \text{widthOfHouse} + \frac{1}{2} (\text{lengthOfBase} (\text{heightOfHouse} - \text{widthOfHouse}))$
 - $\text{squareFeetOfHeightOfHouse} =$
 $\text{lengthOfBase} * \text{widthOfHouse} + \frac{1}{2}$
 $(\text{lengthOfBase}(\text{heightOfHouse} - \text{widthOfHouse}))$
- Find the area of the door and windows and subtract to final area to paint
 - $\text{doorSubtraction} = \text{numberOfDoors} * (\text{doorWidth} * \text{doorLength})$
 - $\text{windowSubtraction} = \text{numberOfWindows} * (\text{windowWidth} * \text{windowLength})$
 - $\text{squareFeetToPaint} = \text{tallSide} + \text{normalSide} - \text{doorSubtraction} - \text{windowSub}$