

PaintCost.java

```
1 import java.text.NumberFormat;
2 import java.util.Scanner;
3
4 public class PaintCost {
5
6     public static void main(String[] args) {
7
8         /*
9          * This program will calculate the cost to paint a house
10         */
11         double houseLengthFeet;
12         double houseLengthInches;
13         double houseWidthFeet;
14         double houseWidthInches;
15         double houseHeightFeet;
16         double houseHeightInches;
17         double windowLengthFeet;
18         double windowLengthInches;
19         double windowWidthFeet;
20         double windowWidthInches;
21         double doorLengthFeet;
22         double doorLengthInches;
23         double doorWidthFeet;
24         double doorWidthInches;
25         double sqFtCost;
26         double sqFtPeak;
27         double sqFtNormal;
28         double sqFtWindows;
29         double sqFtDoors;
30         double sqFtTotal;
31         int windowNumber;
32         int doorNumber;
33
34         Scanner in = new Scanner(System.in);
35         NumberFormat formatter = NumberFormat.getCurrencyInstance();
36
37         //User enters the width of the house, width is calculated in feet
38         System.out.print("Enter the width of the house in feet without the remainder
of inches: ");
39         houseWidthFeet = in.nextDouble();
40         System.out.print("Enter the remaining inches in the width of the house: ");
41         houseWidthInches = in.nextDouble();
42         houseWidthFeet += houseWidthInches/12;
43
44         //User enters the length of the house, length is calculated in feet
45         System.out.print("Enter the length of the house in feet without the
remainder of inches: ");
46         houseLengthFeet = in.nextDouble();
47         System.out.print("Enter the remaining inches in the length of the house: ");
48         houseLengthInches = in.nextDouble();
49         houseLengthFeet += houseLengthInches/12;
50
51         //User enters the height of the house, height is calculated in feet
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52     System.out.print("Enter the height of the house in feet without the
remainder of inches: ");
53     houseHeightFeet = in.nextDouble();
54     System.out.print("Enter the remaining inches in the height of the house: ");
55     houseHeightInches = in.nextDouble();
56     houseHeightFeet += houseHeightInches/12;
57
58     //User enters the width of the windows, width is calculated in feet
59     System.out.print("Enter the width of the windows in feet without the
remainder of inches: ");
60     windowWidthFeet = in.nextDouble();
61     System.out.print("Enter the remaining inches in the width of the windows:
");
62     windowWidthInches = in.nextDouble();
63     windowWidthFeet += windowWidthInches/12;
64
65     //User enters the length of the windows, length is calculated in feet
66     System.out.print("Enter the length of the windows in feet without the
remainder of inches: ");
67     windowLengthFeet = in.nextDouble();
68     System.out.print("Enter the remaining inches in the length of the windows:
");
69     windowLengthInches = in.nextDouble();
70     windowLengthInches += windowLengthInches/12;
71
72     //User enters the width of the doors, width is calculated in feet
73     System.out.print("Enter the width of the doors in feet without the remainder
of inches: ");
74     doorWidthFeet = in.nextDouble();
75     System.out.print("Enter the remaining inches in the width of the doors: ");
76     doorWidthInches = in.nextDouble();
77     doorWidthFeet += doorWidthInches/12;
78
79     //User enters the length of the doors, length is calculated in feet
80     System.out.print("Enter the length of the doors in feet without the
remainder of inches: ");
81     doorLengthFeet = in.nextDouble();
82     System.out.print("Enter the remaining inches in the length of the doors: ");
83     doorLengthInches = in.nextDouble();
84     doorLengthFeet += doorLengthInches/12;
85
86     //User enters the number of windows
87     System.out.print("Enter the number of windows: ");
88     windowNumber = in.nextInt();
89
90     //User enters the number of doors
91     System.out.print("Enter the number of doors: ");
92     doorNumber = in.nextInt();
93
94     //User enters the cost the painter charges per square foot in dollars
95     System.out.print("Enter the cost the painter charges per square foot in
dollars: ");
96     sqFtCost = in.nextDouble();
```

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```
97
98     //Calculate the square footage of the peak sides
99     sqFtPeak = (houseLengthFeet * houseWidthFeet) + ((1/2) * (houseLengthFeet *
100 (houseHeightFeet - houseWidthFeet)));
101
102     //Calculate the square footage of the normal sides
103     sqFtNormal = houseLengthFeet * houseWidthFeet;
104
105     //Calculate the square footage of the windows
106     sqFtWindows = windowLengthFeet * windowWidthFeet;
107     sqFtWindows = sqFtWindows * windowNumber;
108
109     //Calculate the square footage of the doors
110     sqFtDoors = doorLengthFeet * doorWidthFeet;
111     sqFtDoors = sqFtDoors * doorNumber;
112
113     //Find the total square footage of the house
114     sqFtTotal = (2 * sqFtPeak) + (2 * sqFtNormal);
115     sqFtTotal = sqFtTotal - sqFtWindows - sqFtDoors;
116
117     //Find the total cost of painting the house
118     sqFtCost = sqFtCost * sqFtTotal;
119     System.out.println("The total cost to paint the house is " +
120     formatter.format(sqFtCost) + ".");
121 }
122
123 }
124
```