Tamika and Carlos are looking for a house to buy. One day, they find a great house in the neighborhood they like.

"The flyer says the house is 1800 square feet," Tamika says, "but it looks smaller than that. How do we know that the seller is telling the truth?"

Carlos suggests that they measure the house to make sure of its area. The couple doesn't have a tape measure with them, so they decide to improvise instead of driving all the way home to get one. Tamika decides to measure with an umbrella from the car, and Carlos measures with a rake he borrows from the gardener across the street. They split the work to save time, so that half of the house is measured in umbrellas and the other half in rakes.

Both Carlos and Tamika measure the wall with the front door.
Carlos returns the rake to the gardener, and the couple leaves. At home, Tamika measures the umbrella and finds that it is 2 feet, 5 inches long.

1) What are the dimensions of the house in umbrellas?

2) What is the area of the house in square feet? Round to the nearest square foot.

3) How did you figure it out?

To earn credit for these questions, you must:
• Show all of your work in an organized way
• Explain your thinking, using full sentences
• State your answer clearly