



**February 2000**

**Activity 2: Pricing a Deck.**

What will that deck cost?

Mr. and Mrs. Handy are building a sun deck adjacent to their home. The diagram in Figure 1 shows the framing and dimensions of the deck. Mrs. Handy has designed three patterns for the decking, which are shown in Figures 2–4. Mr. Handy will be laying the decking to keep the cost to a minimum.

On sale, pre-stained 2 in. x 6 in. brown treated lumber is advertised at the following prices

Length (ft.)	4	6	8	10	12	14	16
Price (dollars)	4.29	4.99	5.79	6.99	8.49	9.99	12.29

Since these prices are lower than the current prices for special brown treated or green treated deck boards, the Handys decided to use the 2 in. x 6 in. brown treated lumber as deck boards.

**Problem:** Using the prices for brown treated lumber and any variety of the lengths of lumber, determine the minimum cost of each of the three deck designs. (The actual measure of 2 in. x 6 in. stock is 1 ½ in. x 5 ½ in.)

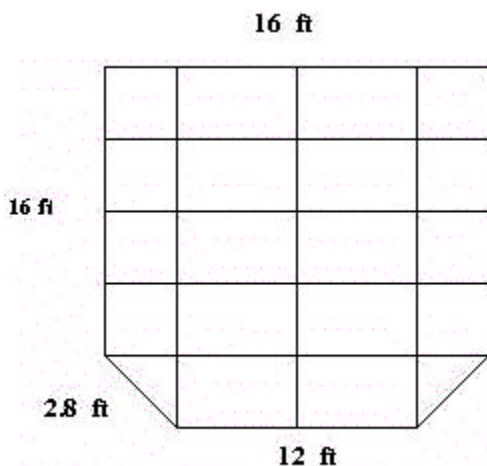


Figure 1. The Handy's deck, with dimensions.

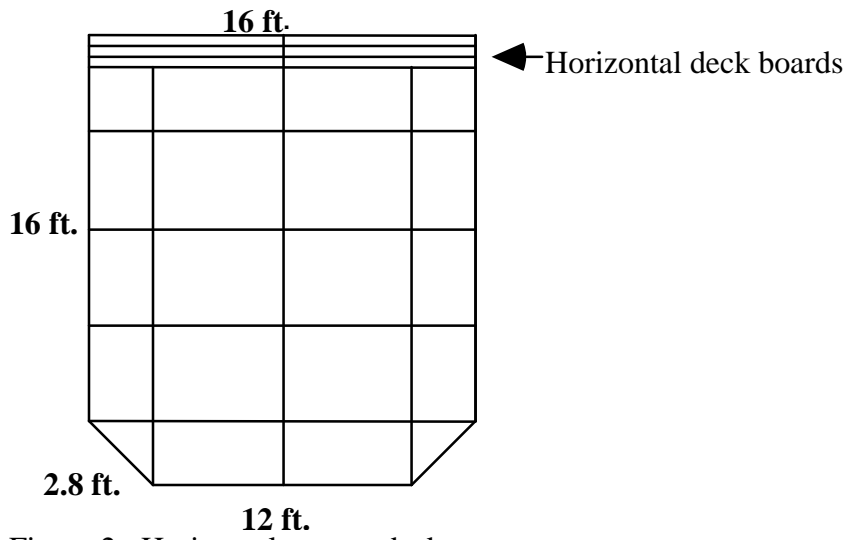


Figure 2. Horizontal pattern deck.

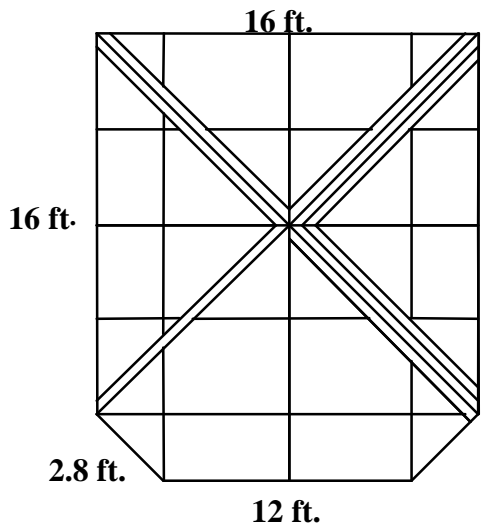


Figure 3. X-pattern deck.

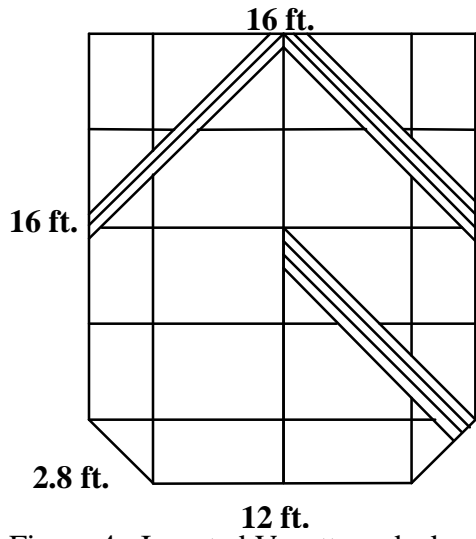


Figure 4. Inverted V-pattern deck.