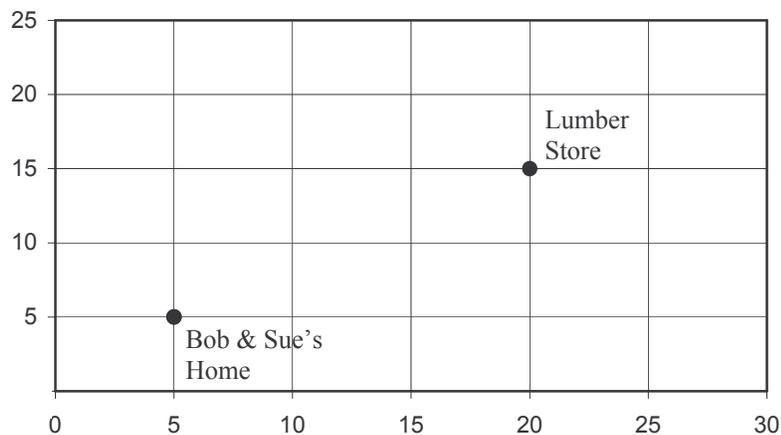


Bob & Sue

Bob and Sue have a house valued at \$135,264.00. To increase the value of their house they decided to add a porch with a floor that measured 16 feet in length by 12 feet in width.

Bob and Sue drove to the lumber store for the supplies they needed to build their porch. The driving distance from their house to the lumber store is 25 miles. They drove the distance to and from the store at an average speed of 50 miles per hour and they spent one hour and thirty minutes in the lumber store.

Map

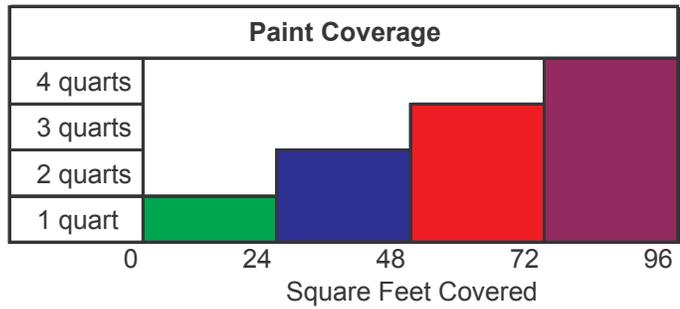


At the lumber store Bob and Sue determined that they needed four 8-foot boards and thirty-two 12-foot boards. They used the following pricing chart for their lumber.

| Lumber Price Chart | |
|---------------------------|-----------------------|
| Board length (in feet) | Price (in dollars) |
| 6 | 4.8 |
| 8 | 6.1 |
| 10 | 8 |
| 12 | 9.75 |

While at the lumber store Bob and Sue decided to buy paint for the porch floor. They used the following chart and graph to determine their paint cost:

| Paint Cost | |
|------------|-----------------|
| Color | Price per quart |
| Red | \$4.00 |
| White | \$3.00 |



Since returning from the lumber store, Bob and Sue have now decided that they need to paint and trim the porch walls. Their color choices for the walls are white or tan and their color choices for the trim are tan, gold, or brown.

Questions

1. What is the value of the 1 in the price of Bob & Sue's house?
2. What is the perimeter of the porch they plan to build?
3. What is a good estimate of the cost of the four 8-foot boards they need to build their porch?
4. What is a good estimate of the cost of the thirty-two 12-foot boards they need to build their porch?
5. What is the total estimated price of all the boards they need to build their porch?
6. Using the "Paint Coverage" chart determine how many quarts of paint they will need to paint the floor of their porch.
7. What is the cost of the paint if they use red to paint their porch?
8. What is the cost of the paint if they use white to paint their porch?
9. How far did Bob & Sue drive to the lumber store and back home?
10. How much time elapsed between the time Bob & Sue left home and the time they returned home?
11. Using the Map, list the coordinates for Bob & Sue's home.
12. Using the Map, list the coordinates for the lumber store.
13. How much would the price of lumber and red paint add to the value of Bob & Sue's home?
14. How many different combinations of wall color and trim color can Bob & Sue choose from for their porch?

Answers

1. 100,000
2. 56 feet
3. \$24
4. \$320
5. \$344
6. 8 qt
7. \$32
8. \$24
9. 50 mi
10. 2 hours and 30 minutes (1 hour driving time plus 1½ hours at the store)
11. (5, 5)
12. (20, 15)
13. \$376
14. 6