

- b. Calculate the floor AREA of the room (use inches). Be sure to show your units and write the units in the answer!
- c. Next, calculate the VOLUME of the room (use feet). Be careful!
- d. You want to paint the walls of the room. You are NOT painting the floor or the ceiling. How many square feet of wall space will you need to cover with paint? If you know that one-half gallon of paint covers 180 square feet, about how many half-gallon cans of paint will you need? Round all answers to two decimal places if necessary.
3. You are given the following chart representing the data collected from a medical survey. Use it to answer the questions below.

| | Lung Cancer | No Lung Cancer |
|-------------------|--------------------|-----------------------|
| Smoker | 450 | 99 |
| Non-Smoker | 100 | 498 |

- a. Use the given chart to create a Venn diagram representing the given information.

- b. How many non-smokers were there in the medical survey? How did you determine this number?
- c. Can you say how many people in the survey had cancer? Explain WHY you chose your answer. BE CAREFUL!
- d. Smoker and Non-Smoker are examples of what set relationship?
- i. Disjoint sets
 - ii. Overlapping sets
 - iii. Subsets
4. Let's say you are searching for an article in an on-line database. The title of the article is "On Immigration Reform in the United States of America." Assume the author's name is "James Walton" and the name of the journal the paper was published in is "The Political Daily." In the following cases, state whether this article will appear in the search results. (Assume the database does have the article.) **EXPLAIN YOUR REASONING!**
- a. United States AND Political
 - b. Reform AND James
 - c. Emigration OR America
 - d. (Williams AND Daily) OR America
5. Wildcard question from other topics not covered in the previous problems.