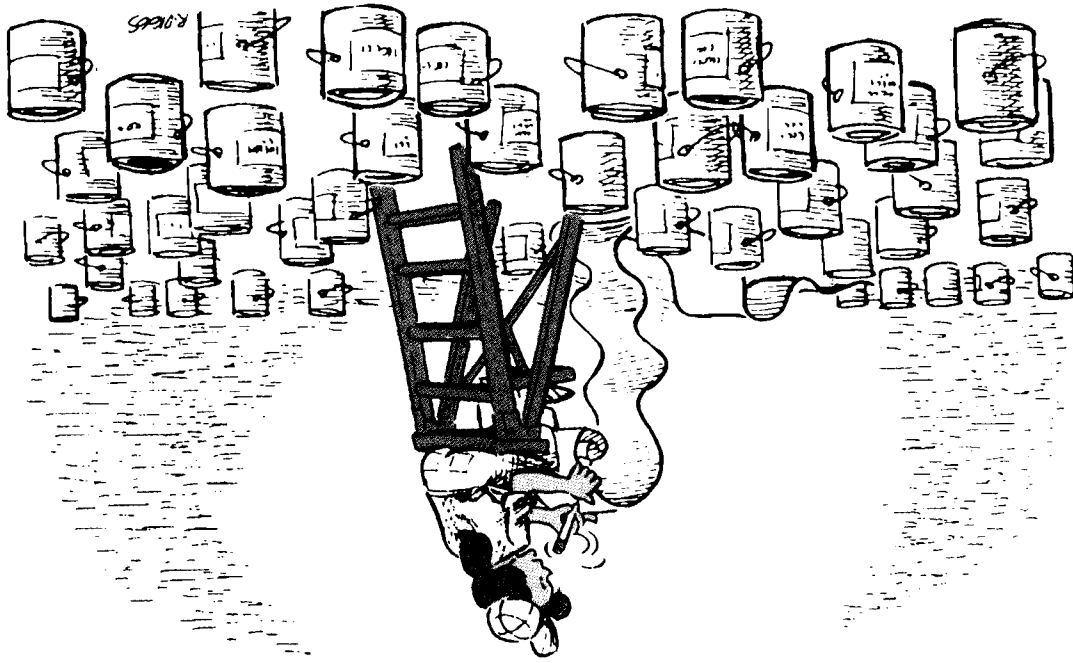


As you solve these problems, keep in mind that you can't buy $12\frac{1}{16}$ gallons of paint at a paint store; you must buy 13 gallons. If your calculations tell you that you need 5.25 bundles of shingles to shingle a house, you have to buy 6 bundles. In this type of "rounding off," you must always "round up." The following exercises involve buying rolls of wallpaper, gallons of paint, bundles of shingles, square yards of carpet, and square feet of tile. Round up.

Exercise Set 9.3

- Joachim wants to wallpaper the four walls of his room. The room is rectangular and measures 11 ft by 13 ft. The ceiling is 10 ft high. A roll of the wallpaper Joachim has chosen is 2.5 ft wide and 50 ft long. How many rolls should he buy?
- Bernice Kravitts is an apprentice painter. Her boss, Rene P. Casso, has the flu. It is up to Bernice to make an estimate on painting 148 rooms in a new motel with one coat of base paint and one coat of finishing paint. The four walls and the ceiling of each room must be painted. Each room measures $14' \times 16' \times 10'$ high.
 - Calculate the total area of all the surfaces to be painted with one coat. Ignore doors and windows.
 - One gallon of base paint covers 500 sq ft. How many gallons of base paint are required for the job?
 - One gallon of finish paint covers 250 sq ft. How many gallons of finish paint will it take to complete the job?



- 3.* Barbara's Bigtime Bakery baked the world's largest chocolate cake. (It was also the world's worst cake, as 343 people got sick after eating it.) The length was 600 cm, the width 400 cm, and the height 180 cm. Barbara and her two assistants, Boris and Bernie, applied green peppermint frosting on the four sides and the top. How many liters of frosting did they need for this dieter's nightmare? One liter of green peppermint frosting covers about 1200 cm^2 .

Barbara, Bernie, and Boris bake a big cake



- 4.* Aunt Teak is ready to have wall-to-wall carpeting installed. The carpeting she has selected costs \$14 per square yard, the padding \$3 per square yard, and the installation \$3 per square yard. What will it cost her to carpet the three bedrooms and the hallway shown at right? Ignore the thickness of the walls.
- 5.* Aunt Teak wishes to lay 1-foot-square Italian Buff ceramic tile in her entryway and kitchen. Italian Buff tiles cost \$5 each. She wishes to lay 4-inch-square ceramic tile on each bathroom floor. The bathroom tile she has selected costs 45¢ per tile. What will it cost Aunt Teak to tile her home?

