Area Problems

1. A wall is 8 feet high and 10 feet wide. In it, there is one window, the size of 3.5 ft x 4.5 ft. What is the area of the wall that needs painted?

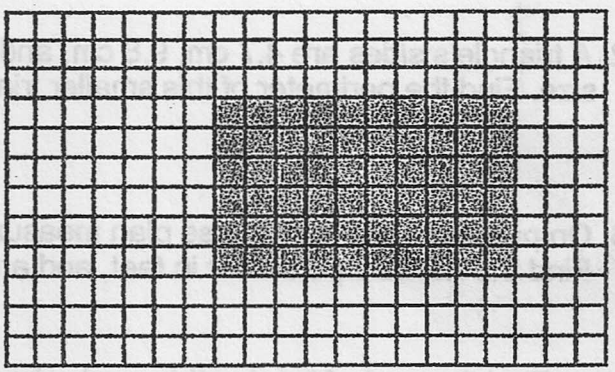
2. Paint covers 350 square feet per gallon. How many quarts of paint do you need to paint the wall in problem 1?

3. **a.** A 20 ft x 30 ft house has walls 8 ft tall. What is the total area of the walls? Assume no windows or doors.

   b. Is two gallons of paint enough to paint its walls? If not, how many gallons are enough?

4. Calculate your answer to problem #3 a. and b. again, now assuming that the house has eight windows the size 3 ft x 4 ft, and one door, 4 ft x 6 ft.

5. What part of the whole floor is the dark area? Remember to simplify your fraction.



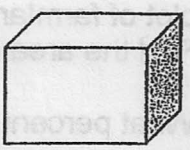
6. A room is 12 ft x 10 ft. What part of the floor does a 3 x 4 ft carpet cover?

7. Design a rectangular carpet that covers 1/4 of the floor in #6.

8. Betty's plot is 40 m x 25 m in size. Her house that sits in the middle is 20 m x 12 m. Then there is a paved yard in front of her house, 4 m x 5 m in size. The rest of it is grass. Find Betty's lawn size in square meters.

   If her son can mow 500 square meters of grass in one hour, how long **approximately** will it take for him to mow Betty's grass?

9. This box's dimensions are 2 ft x 1.5 ft x 1.5 ft. Mark those on the picture.



   What is the total area of the box's sides and bottom (ie. not including the top)?

Perimeter and Area Problems

1. Joe's pizzeria offers the following pizzas. Let's find out which is the best buy.

   a. Find the area of each pizza, and the cost per square inch. Write those in the table.
   Find the area to four decimals.
   Find the cost per square inch to tenth of a cent (three decimals).

   b. Which pizza is the cheapest per square inch?

Pizza diameter	Cost	Area (sq. in.)	Cost per square inch
10"	$7.99		
12"	$9.99		
14"	$12.99		
18"	$15.99		

   c. Which is cheaper per square inch, the 12" or the 10" pizza?

   d. Which gives you more to eat, two 10" pizzas or one 14" pizza?

   e. Which gives you more to eat, three 10" pizzas or one 18" pizza?

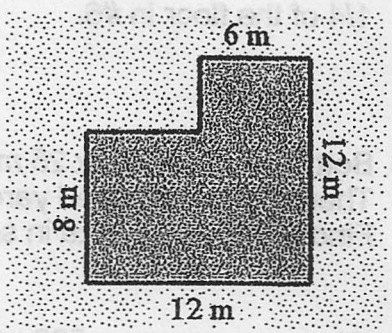
2. A triangle's sides are 4.7 cm, 9.8 cm, and 6.2 cm. Another similar triangle is just half that size. Find the perimeter of this smaller triangle.

3. On paper, Mr. Smith's house plan measures 9" x 12". In reality the house is 40 times as big. Find the house's perimeter in feet, and area in square feet.

4. **a.** Find the cost of fencing this yard, when the fence costs $11.59 per meter.

   b. Find the area of the yard.

   c. What part of the yard will a rectangular 6 m x 4 m pool take?



5. A plot of farmland is divided into two parts by a ditch.
   a. Find the area of both of those parts.

   * **b.** What percent of the total area is the smaller part?

   * **c.** If the whole plot costs $12,000, what should the smaller part cost?