Buying Wallpaper

EXAMPLE Gloria plans to paper her bedroom, which measures 9′ x 12′ × 8′. Each double roll of wallpaper covers 144 sq ft. How many double rolls of wallpaper should she buy?
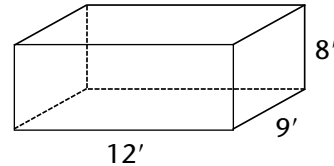
Step 1 Find the perimeter of the floor 9′ x 12′.

$$P = 2(9' + 12')$$
$$= 2(21')$$
$$= 42'$$

Step 2 Find the area of the 4 walls. Multiply the perimeter by the height.

42′　　　Perimeter
× 8′　　　Height
336 sq ft　Area of 4 walls

Step 3 Divide the area by 144 square feet to find the number of rolls needed.

```
        2   Double rolls of wallpaper
144 ) 336   Area of room
    − 288
       48   Square feet remaining
```

Gloria should purchase 3 double rolls of wallpaper.

Directions Calculate the number of double rolls of wallpaper needed to paper each of these rooms. The third measurement for each room is the height.

	Dimensions of Room	Area of Walls	Double Rolls
1.	7.5′ × 9.5′ × 8′		
2.	14′ × 15′ × 10′		
3.	15′ × 11′ × 8′		
4.	19′ × 17′ × 8′		
5.	8.5′ × 11.5′ × 8′		
6.	22′ × 11′ × 8′		
7.	15.5′ × 18.5′ × 10′		
8.	9′ × 11.2 × 10′		
9.	12.9′ × 23.8′ × 8′		
10.	30′ × 18′ × 8′		

Consumer Mathematics