Wall-to-Wall Carpeting

EXAMPLE Claudia wants wall-to-wall carpeting in her room, which measures 12′ × 7′. Carpeting is on sale for $9.99 per square yard. Estimate the cost. Round answers where possible.

Step 1 Find the area of the floor in square feet.
Area = l × w
= 12′ × 7′
= 84 square feet

Step 2 Find the area in square yards. One square yard = 9 square feet. Divide by 9 to find the number of square yards.

$$9\overline{)84}$$
9 sq yd = 10 sq yd
− 81
3 sq ft

Step 3 Round the cost per square yard to the next whole number. Round 9 sq yd and 3 sq ft to 10 sq yd. Multiply the number of square yards by the cost per square yard.

$9.99 = $10.00
10 × $10.00 = $100.00

Claudia's estimated cost is $100.00.

Directions Estimate the cost of carpeting these floors.

	Floor Dimensions	Cost per Sq Yd	Estimated Cost
1.	18′ × 8′	$9.89	
2.	22′ × 17′	$10.95	
3.	13′ × 16′	$15.90	
4.	10′3″ × 14′9″	$10.99	
5.	13′8″ × 15′10″	$8.92	
6.	11′ × 14′2″	$11.97	
7.	7′3″ × 14′	$13.90	
8.	9′5″ × 10′	$12.99	
9.	14′ × 17′	$8.92	
10.	10′6″ × 17′10″	$19.99	
11.	7′7″ × 9′4″	$12.89	
12.	24′ × 19′	$10.95	
13.	12′8″ × 15′9″	$8.89	

Covering the Floor

EXAMPLE Mary Lou decides to buy square tiles to cover her bathroom floor. Each square measures 12″ × 12″ and costs $1.19. How much will it cost to cover her 12′ × 7′ floor?

Step 1 Find the area that each tile covers.
12 inches = 1 foot
1′ × 1′ = 1 square foot

Step 2 Find the number of square feet of floor that needs to be covered.
Area = l × w
= 12′ × 7′
= 84 square feet
Since each tile covers 1 square foot, Mary Lou needs 84 tiles.

Step 3 Multiply the number of tiles by the cost per tile.

$ 1.19	Cost per tile
× 84	Number of tiles
$99.96	Total cost

Directions Find the cost of covering these floors with 12″ × 12″ tiles.

	Cost per Tile	Floor Dimensions (in feet)	Cost of Flooring
1.	$0.69	10 × 7	
2.	$1.39	18 × 9	
3.	$2.39	9 × 15	
4.	$1.99	11 × 16	
5.	$2.19	12 × 19	
6.	$1.15	10 × 19	
7.	$2.75	12 × 17	
8.	$4.19	8 × 18	
9.	$3.79	8 × 17	
10.	$5.19	13 × 16	
11.	$4.85	12 × 7	
12.	$0.95	17 × 7	
13.	$1.45	10 × 14	
14.	$3.09	9 × 15	
15.	$2.09	12 × 20	