

8.6 Area Applications and Cost

Chapter 8: Geometry and Measurement

Name: _____

Date: _____

Class/Period: _____

Problem 8.81 A 12×10 wall has one 3×7 door. Find paintable area.

Problem 8.84 A tile covers 36 in^2 . How many cover 950 in^2 ?

Problem 8.82 Carpet costs \$4.80 per square foot for a 14×11 room. Find cost.

Problem 8.85 A 16×12 garden has a 1-foot path outside it. Find path area.

Problem 8.83 A deck has area 180 ft^2 . Wood costs \$5.30 per square foot. Find cost.

Problem 8.86 A 20×15 lawn has a 6×8 patio. Find grass area.

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Problem 8.87 Paint covers 350 ft^2 per gallon and is sold only in one-gallon cans. How many cans must be purchased to cover 920 ft^2 ? Explain the rounding.

Problem 8.90 A border extends 3 feet around a 12×18 rectangle. Find border area.

Problem 8.88 Wallpaper costs \$2.25 per square foot for 138 square feet. Find cost.

Problem 8.91 Explain why the border width is added twice to each dimension.

Problem 8.89 A contractor adds 8% waste to 425 square feet. How much material is ordered?

Problem 8.92 Explain when a quotient in a material problem should not be rounded up.

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Problem 8.93 A wall measures $24 \text{ ft} \times 10 \text{ ft}$, with three 4×5 windows and two 3×7 doors. Paint costs \$0.85 per square foot. Find cost.

Problem 8.95 A composite deck has area 286 square feet. Boards cover 1.6 square feet each and are sold in packs of 8 boards. How many packs are needed?

Problem 8.94 A rectangular pool is 12×30 feet with a 3-foot stone border. Each stone covers 2.5 ft^2 and costs \$4.20. Find stones and total cost.

Problem 8.96 A floor has area 360 square feet. One tile option costs \$2.10 per square foot with 5% waste; another costs \$1.95 with 12% waste. Compare material costs.