

Practical Application

Calculate the Perimeter and Area of a Room

Order Trim Materials and Flooring

Refer to the attached architectural drawing of a bedroom and its closet.

For this remodeling job you will install the following:

- Porcelain Floor Tile
- Crown Molding (bedroom ceiling *only*)
- Baseboard
- Base Shoe

A. Perimeter.

1-2. Find the perimeter:

	Length	Width	Perimeter
Bedroom			1.
Closet			2.

B. Moldings.

3-13. Based on the perimeter of each space, determine how much material (lineal feet) you'll need:

	Crown Molding	Base Board	Base Shoe
Bedroom	3.	6.	10.
Closet	 	7.	11.
TOTALS	4.	8.	12.
Add 5% for waste	5.	9.	13.

Examine the table below.

14-22. Calculate the *price per lineal foot* for each item from each of the lumber yards.

	Acme Lumber Yard	Alhambra Lumber	Lowe's Home Improvement
3 1/8" Crown Molding	16' - 0" @ \$16.00	14' - 0" @ \$15.40	8' - 0" @ \$9.97
Price per lineal foot:	14. \$ _____ . _____	15. \$ _____ . _____	16. \$ _____ . _____
3" Base Board	10' - 0" @ \$8.90	12' - 0" @ \$10.68	12' - 0" @ \$12.48
Price per lineal foot:	17. \$ _____ . _____	18. \$ _____ . _____	19. \$ _____ . _____
1/2" x 3/4" Base Shoe	8' - 0" @ \$5.52	10' - 0" @ \$6.90	8' - 0" @ \$4.48
Price per lineal foot:	20. \$ _____ . _____	21. \$ _____ . _____	22. \$ _____ . _____

Determine the number of *full pieces* of each molding you would need to order from each source, along with the cost.

Acme Lumber Yard

Alhambra Lumber

Lowe's Home Improvement

	# of Pieces	Cost	# of Pieces	Cost	# of Pieces	Cost
Crown Molding	23. _____	24. \$ _____ . _____	25. _____	26. \$ _____ . _____	27. _____	28. \$ _____ . _____
Base Board	29. _____	30. \$ _____ . _____	31. _____	32. \$ _____ . _____	33. _____	34. \$ _____ . _____
Base Shoe	35. _____	36. \$ _____ . _____	37. _____	38. \$ _____ . _____	39. _____	40. \$ _____ . _____

41-43. Compare the costs above and **circle** which 41. crown molding, 42. base board, and 43. base shoe will be most economical for your job.

C. Area

44-47. Find the area:

	Length	Width	Area
Bedroom			44.
Closet			45.
		TOTAL	46.
		Add 5% for waste	47.

D. Flooring

Examine the table below.

48-50. Calculate the **price per square foot** for each brand of porcelain floor tile from each of the lumber yards.

Acme Lumber Yard

Alhambra Lumber

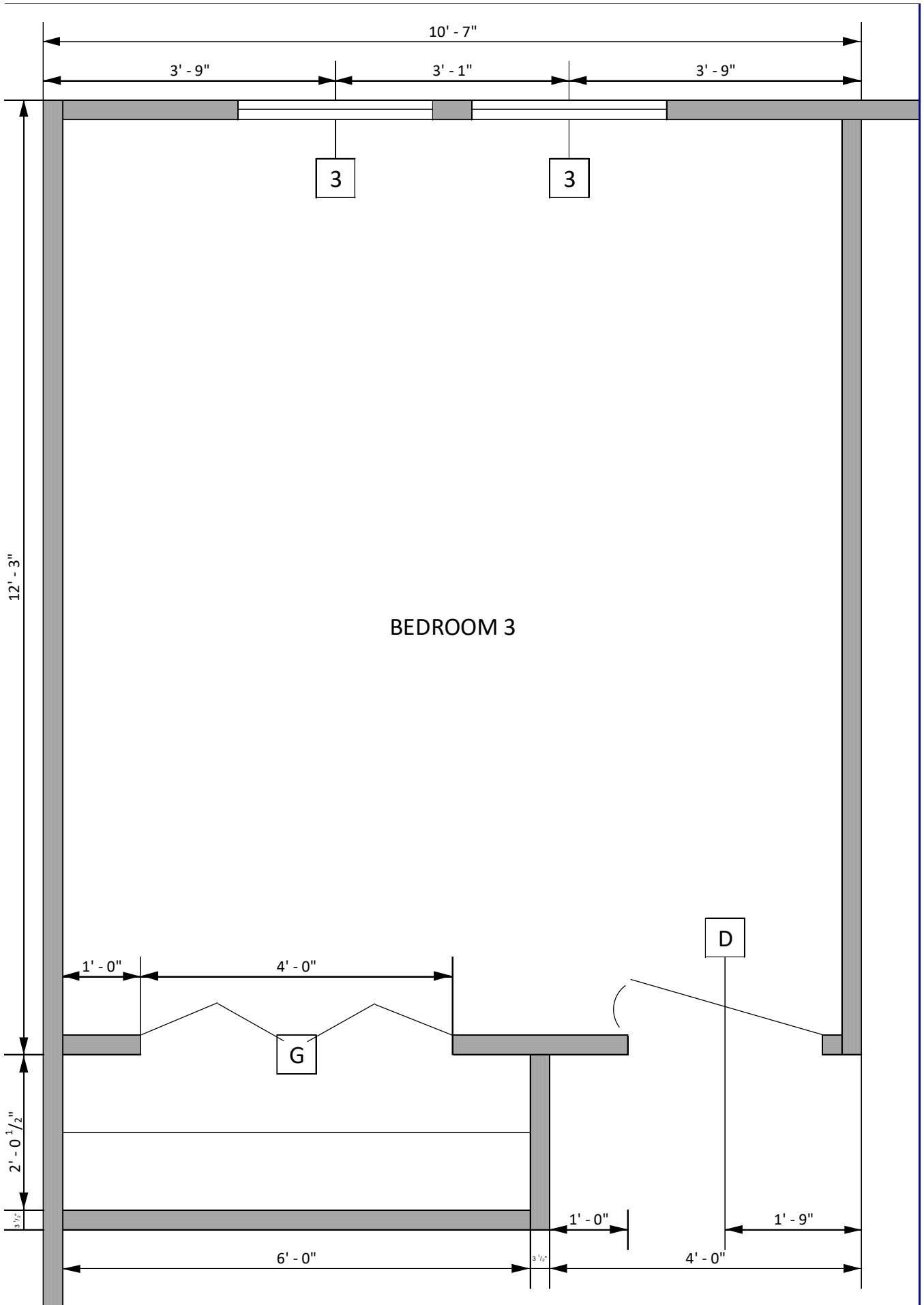
Lowe's Home Improvement

Tile size & price:	12" x 12" @ \$4.95	16" x 16" @ \$8.36	18" x 12" @ \$7.42
Price per square foot :	48. \$ _____ . _____	49. \$ _____ . _____	50. \$ _____ . _____

51. Compare the costs above and **circle** which tile will be most economical for your job.

52. What will be the **total cost** for your job?

Item	Cost	Which Vendor?
Crown Molding	\$ _____ . _____	_____
Base Board	\$ _____ . _____	_____
Base Shoe	\$ _____ . _____	_____
Floor Tile	\$ _____ . _____	_____
TOTAL	52. \$ _____ . _____	_____



Enrichment

Drywall.

For the same remodeling job, the homeowners decided that since they were putting in such nice flooring & moldings, they would also like to have new, smooth walls. This requires replacing all of the drywall on the ceiling and walls.

1. Assume the rooms have 8' - 0" tall walls.
2. Do not subtract for window or door areas.
3. Add 5% for waste.
4. Use drywall that is 4' - 0" wide x 8' - 0" long. How many square feet is this? _____

Room	Plane	Length	Width	Area
Bedroom	Ceiling			
	Near Wall			
	Far Wall			
	Left Wall			
	Right Wall			
Closet	Ceiling			
	Near Wall			
	Far Wall			
	Left Wall			
	Right Wall			
TOTAL SQUARE FEET				
+ 5% for Waste				

How many sheets of drywall will you need? _____