Interior Redecorating Project

Goal: To apply your geometry and measurement skills in the area of architecture. For this project, you will become an interior decorator. You will be redecorating your bedroom. You will be making many measurements, utilizing several mathematical formulas, and determining the total cost to redecorate your bedroom.

PART 1: Measuring your bedroom

This project begins by measuring the following lengths in your bedroom.
Record all answers to the nearest inch.

		Measured in feet and inches	**Converted to only inches**
1.	Length of floor (long side)		
2.	Width of floor (short side)		
3.	Height of ceiling		
4.	Number of windows		
5.	Height of window #1		
6.	Width of window #1		
7.	Height of window #2 (if applicable)		
8.	Width of window #2 (if applicable)		
9.	Height of bedroom door		
10.	Width of bedroom door		
11.	Height of closet door		
12.	Width of closet door		

PART 2: Making a scale model of your room

Using the same standards we discussed in class, create a scale drawing of your room. Use the scale of one-quarter inch equals one-half of a foot (2 boxes per foot). Include all important architectural symbols (lights, switches, fans, outlets, windows, etc.) Then, just as we created a 3D model in class, add the walls along with doors and windows to create a mini-model of your room.

PART 3: Finding the area and perimeter of your room

Complete the following table to determine the area and perimeter of various aspects of your bedroom.
Show all steps (including formulas directly on this page).

1.	Perimeter of the bedroom floor	Area of the bedroom floor
2.	Perimeter of wall #1	Area (minus any windows) of wall #1
3.	Perimeter of wall #2	Area (minus any windows) of wall #2
4.	Perimeter of wall #3	Area (minus any windows) of wall #3
5.	Perimeter of wall #4	Area (minus any windows) of wall #4
6.	Perimeter of window #1	Area of window #1
7.	Perimeter of window #2	Area of window #2
8.	Perimeter of door	Area of door

PART 4: Determining the amount of materials you need

Use your calculations to fill in the measurement column. To determine some of the items you will needs to visit a home improvement store such as Home Depot or Lowe's (or visit their websites).

1.	Floor Tile - Start with the area of your floor. Based on the number of tiles in a box (and their size) determine how **many boxes of tiles** you will need. Show all work below. Label all numbers.
2.	Carpet - Start with the area of your floor. Determine **the number of square yards of carpet** you will need. Show all work below. Label all numbers.
3.	Paint - Start with the total area of the walls. Determine the **number of gallons of paint** you will need. Show all work below. Label all numbers. If you do not have a better estimate use 1 gallon covers 300 square feet.
4.	Wallpaper - Start with the total area of the walls. Determine the **number of rolls of wallpaper** you will need. Show all work below. Label all numbers.
5.	Baseboard Trim – Start with the perimeter of the floor. Determine the **number of baseboards** you will need. Label all numbers.
6.	Window Trim – Start with the perimeter of the windows and doors. Determine **the number of boards** you will need. Label all numbers.

PART 5 – Filling out your order form

Complete the following order form.

<div align="center">

MANGHAM'S DECORATING CENTER
123 Main Street
Grapevine, TX 76051

</div>

Customer Name: _____

On my floor, I wish to use (circle one):   TILE   CARPET

On my wall, I wish to use (circle one):   PAINT   WALLPAPER

Based on your selections, complete your order. Use prices that you locate online or at a store.

				TOTAL COST
FLOORING COST				
1.	TILE	Cost per box	# of boxes	
……or……				
1.	CARPET	Cost per yard	# of yards	
WALL COST				
2.	PAINT	Cost per gallon	# of gallons	
……or……				
2.	WALLPAPER	Cost per roll	# of rolls	
BASEBOARD TRIM COST				
3.	BASEBOARD TRIM	Cost per board	# of boards	
WINDOW TRIM COST				
4.	WINDOW TRIM	Cost per board	# of boards	
*** GRAND TOTAL COST ***				

Attach the description of the materials that you used for this project. This could be a printout from a website or a handwritten description from the stores you visited. An example for wallpaper would be, "I found purple wallpaper with pink polka dots at Home Depot. The cost was $7.69 per roll and each roll contained 50 square feet of wallpaper."