

# Room Redecorating

## Standards

### Content

Students will be able to...

- Apply mathematical knowledge to real world situations
- Apply mathematical knowledge to solve problems
- Find the area of polygons

### Process

Students will be able to...

- Demonstrate effective writing skills

## Task Description and Criteria

You just bought an old house and you have decided to redecorate one of the rooms. However, you have a budget you need to stick to of \$2000. You will definitely need new flooring and wall covering. Any money left over is to be spent on new furniture or decorations. How you choose to redecorate the room is up to you. You will use paint for the walls and choose carpeting or hard wood for the floors. The layout of the room is up to you, but you will need to draw a floor plan for me with the dimensions clearly marked. Don't forget about the windows and doors, those dimensions are just as important even though they are not being covered.

A couple things to keep in mind about paint and flooring:

For the walls, you need one coat of primer and two coats of paint

For a carpeted floor, you need to buy padding

1 gallon of paint covers 400 square feet

1 gallon of primer costs \$12.95

1 gallon of paint costs \$15.56

Carpet costs \$12 per square yard

Padding costs \$5 per square yard

Hard wood floors cost \$8 per square foot

You will calculate how much it will cost you to cover the walls and floor, and then if there is money remaining use magazines or the internet to find furniture and decorations. Anything you want to buy needs to be cut out or printed with a picture and price.

Make sure your calculations are accurate and do not go over your budget!

Use this calculations guideline

Paint color chosen: \_\_\_\_\_

Area of the walls: \_\_\_\_\_

Primer cost: \_\_\_\_\_

Paint cost: \_\_\_\_\_

Flooring chosen: \_\_\_\_\_

Area of the floor: \_\_\_\_\_

Flooring cost: \_\_\_\_\_

Total cost of walls and floor: \_\_\_\_\_

How much money do you have left over: \_\_\_\_\_

Cost of furniture and decorations: \_\_\_\_\_

How much money is left over: \_\_\_\_\_

Your grade will be based on the following criteria:

- ❖ Floor plan is drawn neatly with all dimensions labeled
- ❖ Area of the walls is correct
- ❖ Area of the floor is correct
- ❖ Cost of paint is correct
- ❖ Cost of flooring is correct
- ❖ Colors of paint and flooring chosen are included
- ❖ Money left over is correct
- ❖ Pictures and prices included for furniture and decorations
- ❖ Drawing of the room included, colored, and neat

## Rubric

Criteria	Unacceptable (0 pts)	Poor (2 pts)	Good (4 pts)	Excellent (6 pts)
Floor plan	No floor plan included	Floor plan has some, but not all dimensions labeled		Floor plan has all dimensions labeled
Wall Area	Not correct with no work shown	Did not subtract out windows and doors	Minor errors in calculations	Correct with all work shown neatly
Floor Area	Not correct with no work shown	Did not subtract out base of door	Minor errors in calculations	Correct with all work shown neatly
Paint Cost	Not correct	Many errors in calculations	Few errors in calculations	Correct with all work shown neatly
Floor Cost	Not correct	Many errors in calculations	Few errors in calculations	Correct with all work shown neatly
Colors and Type of Flooring	Not included		Included	
Money Left Over	Not included	Included but not accurate		Included and accurate
Furniture and Decorations	Not included	Included with pictures but no prices	Included with pictures and prices	
Budget	Over budget			Under budget
Drawing of Redecorated Room	Not included	Drawing is neat but not colorful or detailed	Drawing is neat, colorful, and detailed	

Total: / 50 points