

## Dream House Designing Challenge!

You have been selected to be able to design your very own dream house! You will draw a floor plan of your dream house on the grid paper provided. You must include the rooms that are already listed on your table, but you can add more if you wish. Your house must be one level and you must fill out the table below with the area and perimeter of each room in your home. DO NOT forget to include the **units** in each of your calculations (each square on your paper is equal to 1 square meter)! Good luck and have fun!

Use this table to keep track of your rooms and their sizes:

Room Name	Area	Perimeter
Kitchen		
Living Room		
Bathroom		
Bedroom 1		
Yard		

Total Area of the House: \_\_\_\_\_

Total Perimeter of the House: \_\_\_\_\_

## Flooring

It is time to add flooring to your house! Select the type of flooring you would like for each room and calculate the cost using the table provided.

Type	Cost of Flooring (per square meter)
Wood Floors	\$10
Carpet	\$5
Tile	\$4

Room Name	Type of Floor	Total Area of Room	x	Cost of Flooring	Total Cost
			x		
			x		
			x		
			x		
			x		
			x		
			x		
			x		

## Paint

It is time to paint the inside of your house! You will need to figure out the cost of paint for 3 rooms of your choice. You can of course paint more rooms if you would like!

Some important facts:

- All walls are 3 meters tall
- Every litre of paint costs \$9
- 1 Liter of paint will paint 25 square meters

You need to calculate how much paint you need to buy before you can figure out the cost. Use the next few pages to help calculate how much you will need.

Room name: \_\_\_\_\_

Area of Wall #1: \_\_\_\_\_

Height: \_\_\_\_\_

Width: \_\_\_\_\_

Area of Wall #2: \_\_\_\_\_

Height: \_\_\_\_\_

Width: \_\_\_\_\_

Area of Wall #3: \_\_\_\_\_

Height: \_\_\_\_\_

Width: \_\_\_\_\_

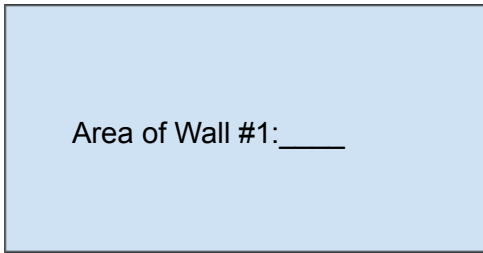
Area of Wall #4: \_\_\_\_\_

Height: \_\_\_\_\_

Width: \_\_\_\_\_

Total Wall Area for Room: \_\_\_\_\_

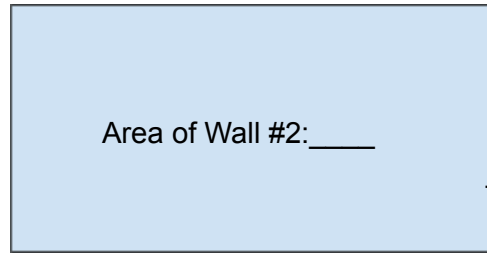
Room name: \_\_\_\_\_



Area of Wall #1: \_\_\_\_\_

Height: \_\_\_\_\_

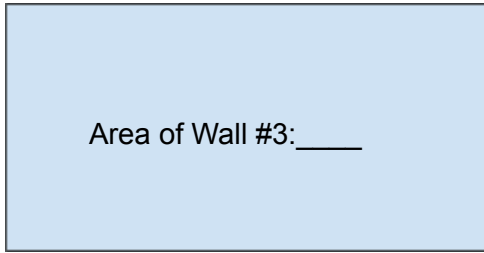
Width: \_\_\_\_\_



Area of Wall #2: \_\_\_\_\_

Height: \_\_\_\_\_

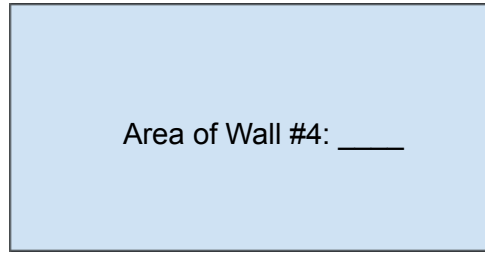
Width: \_\_\_\_\_



Area of Wall #3: \_\_\_\_\_

Height: \_\_\_\_\_

Width: \_\_\_\_\_



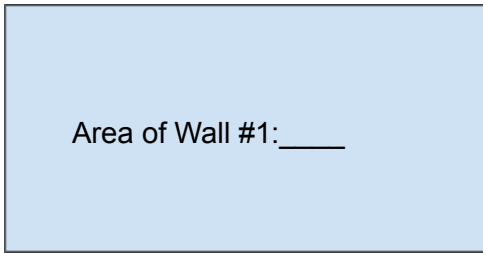
Area of Wall #4: \_\_\_\_\_

Height: \_\_\_\_\_

Width: \_\_\_\_\_

Total Wall Area for Room: \_\_\_\_\_

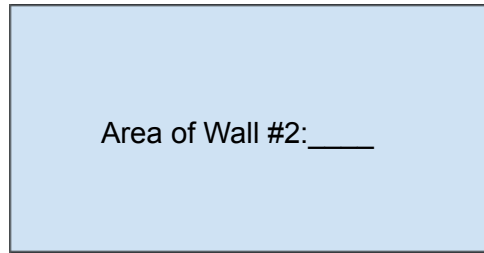
Room name: \_\_\_\_\_



Area of Wall #1: \_\_\_\_\_

Height: \_\_\_\_\_

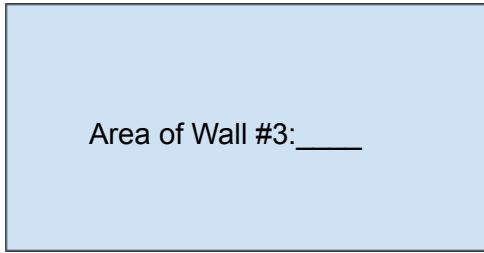
Width: \_\_\_\_\_



Area of Wall #2: \_\_\_\_\_

Height: \_\_\_\_\_

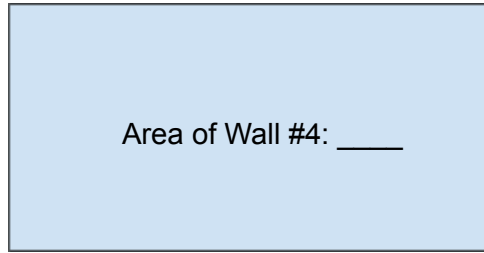
Width: \_\_\_\_\_



Area of Wall #3: \_\_\_\_\_

Height: \_\_\_\_\_

Width: \_\_\_\_\_



Area of Wall #4: \_\_\_\_\_

Height: \_\_\_\_\_

Width: \_\_\_\_\_

Total Wall Area for Room: \_\_\_\_\_

Now, add together all three wall areas.

Room:	Total Wall Area for Room:
Total Area to Paint:	

### How Much Paint Do You Need to Buy?

Remember:

- Every litre of paint costs \$9
- One litre of paint will paint 25 square meters

(you can use a calculator for this part)

$$\text{Total Area to Paint} \underline{\hspace{2cm}} \div 25 = \underline{\hspace{2cm}}$$

(Number of Litres)

Your answer is the number of litres needed to paint these rooms. Round the number up to the nearest whole number. For example, if you get 6.342, round up to 7 litres of paint.

Now, it is time to determine the cost of that paint!

$$\text{Number of Litres} \underline{\hspace{2cm}} \times \$9 = \underline{\hspace{2cm}}$$

(Total Cost of Paint)

## Time to See How Much Your House Cost!

Your house costs \$2 per square meter to build. Add up your total area and multiply it by 2 to get how much it costs to build your house and write it below.

**Total Building Cost:** \_\_\_\_\_

Now, you also added flooring and paint. Write the total cost of each below.

**Total Flooring Cost:** \_\_\_\_\_

**Total Painting Cost:** \_\_\_\_\_

Add all three totals together to get the total cost it takes to build your dream house, write the total below.

**Total Cost of House:** \_\_\_\_\_

If you sold your house for \$100,000, would you make a profit? \_\_\_\_\_

If you made a profit, how much was your profit? \_\_\_\_\_

If you didn't make a profit, how much would you have to sell your house for to make a profit?

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Add colour to your dream house design! You can also add things like furniture, fencing, a pool, or anything else you would like in your dream house!

Share your dream house with a partner! Get a house tour from them and then tour their house!