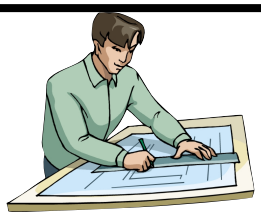
MATH PROJECT #1

TOTAL SCORE

____	=	____
1900		%

GENERAL FLOOR PLAN

_____ = _____ %
100



ROOM FLOOR PLANS

_____ = _____ %
100

PRODUCT RESEARCH

_____ = _____ %
100

TOTAL FLOORING COST

_____ = _____ %
1000

TOTAL BASEBOARD COST

_____ = _____ %
500

CHARTING PROJECT COST

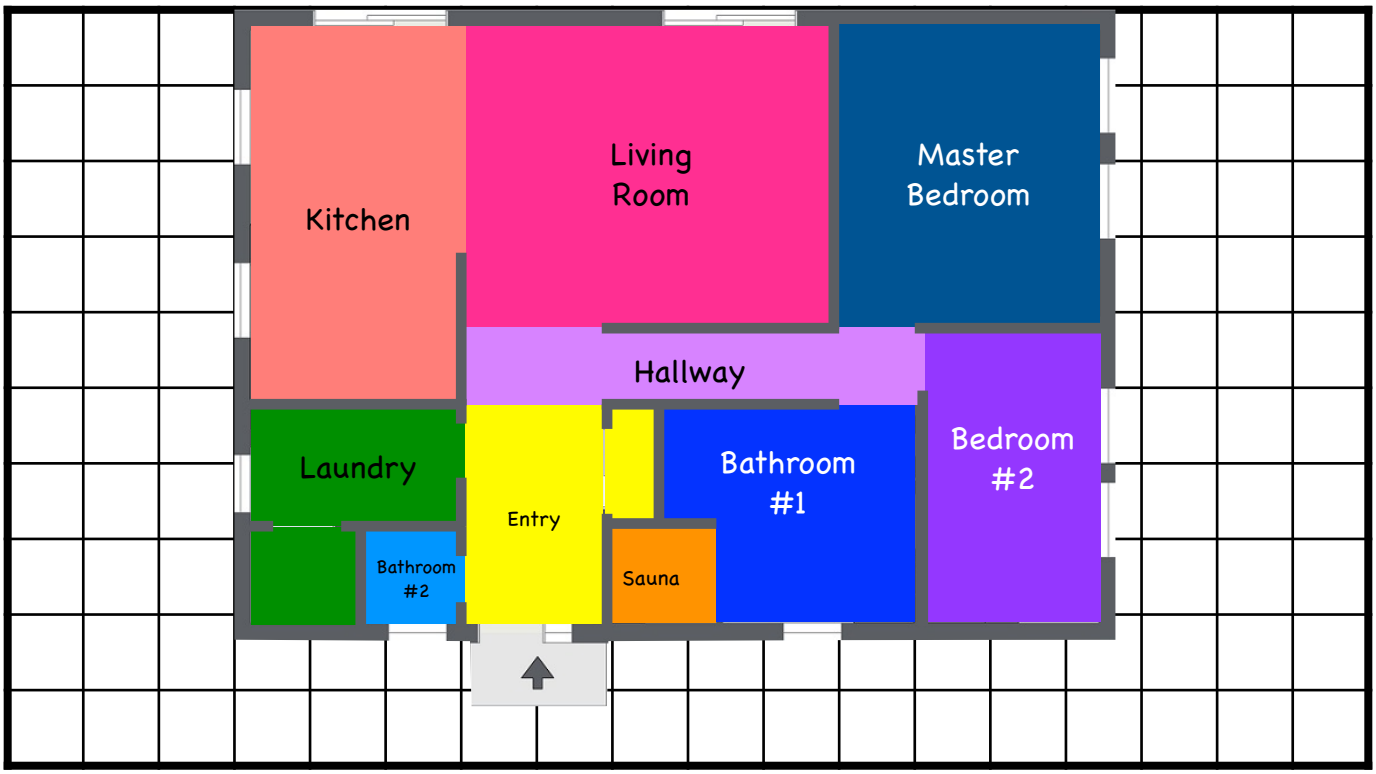
_____ = _____ %
100

INSTRUCTIONS

FLOORING RENOVATIONS
FLOOR PLANS

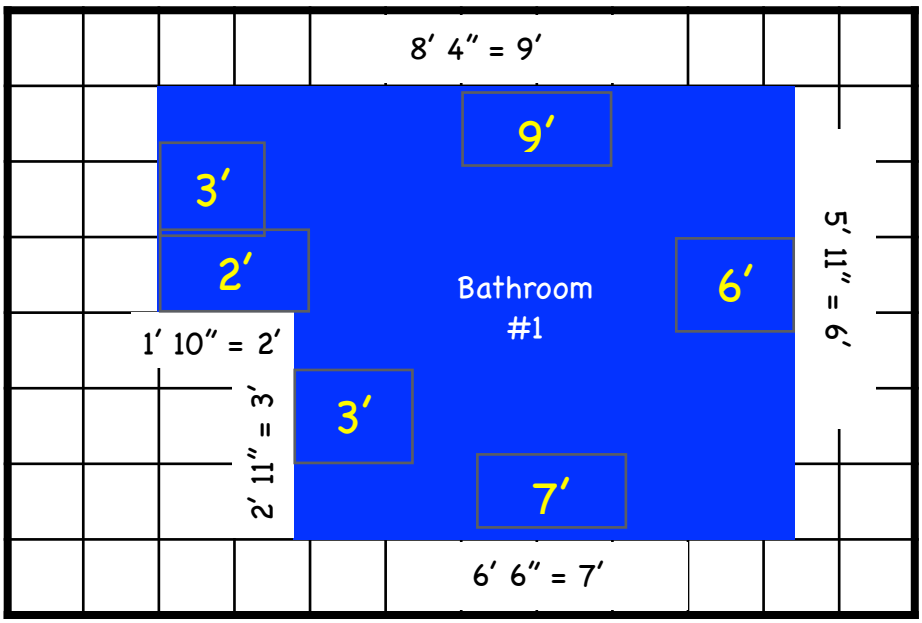
STEP 1

Draw a floor plan of your entire house.
Include the main living space. For some, this will include a second story
Do not include cupboards, appliances, or furniture - just the basic layout as if each room was empty.



STEP 2

Draw a larger scale floor plan for each room. Each square counts as a square foot.
Measure the room with a tape measure, using feet. Always round the number high.
The symbol for feet is (′) The symbol for inches is (″)

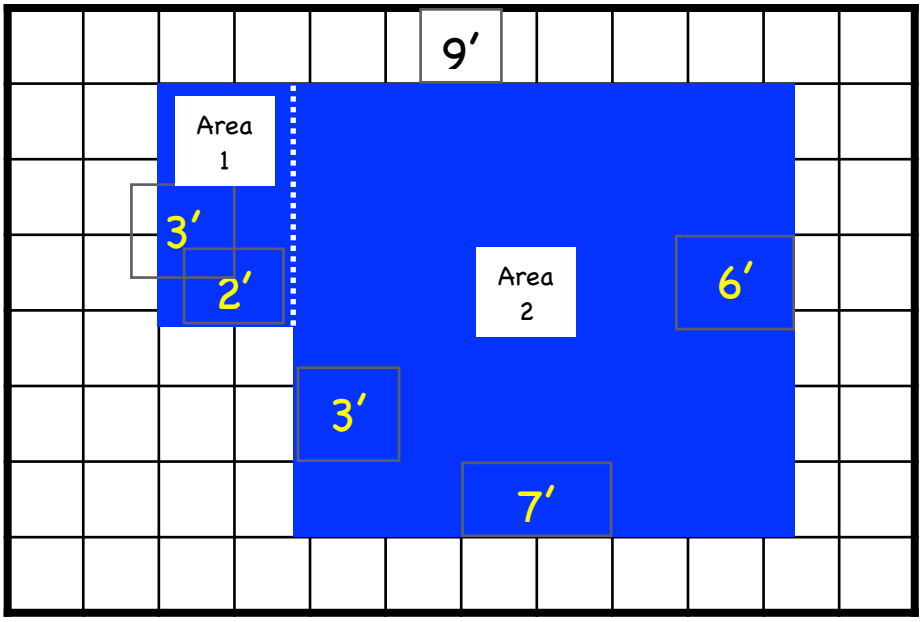


Contractors always add 10% to the material needed to compensate for cuts and mistakes. We'll do that by always rounding room measurements on the high side. This will get us close to 10%

FLOORING RENOVATIONS
AREA & PERIMETER

STEP 3

Determine the square footage of each room.
You will need this to determine the cost of your flooring.



AREA 1	AREA 2	TOTAL AREA
A = L x W	A = L x W	TA = A1 + A2
A = 3 x 2	A = 7 x 6	TA = 6 + 42
A = 6 ft²	A = 42 ft²	TA = 48 ft²

STEP 4

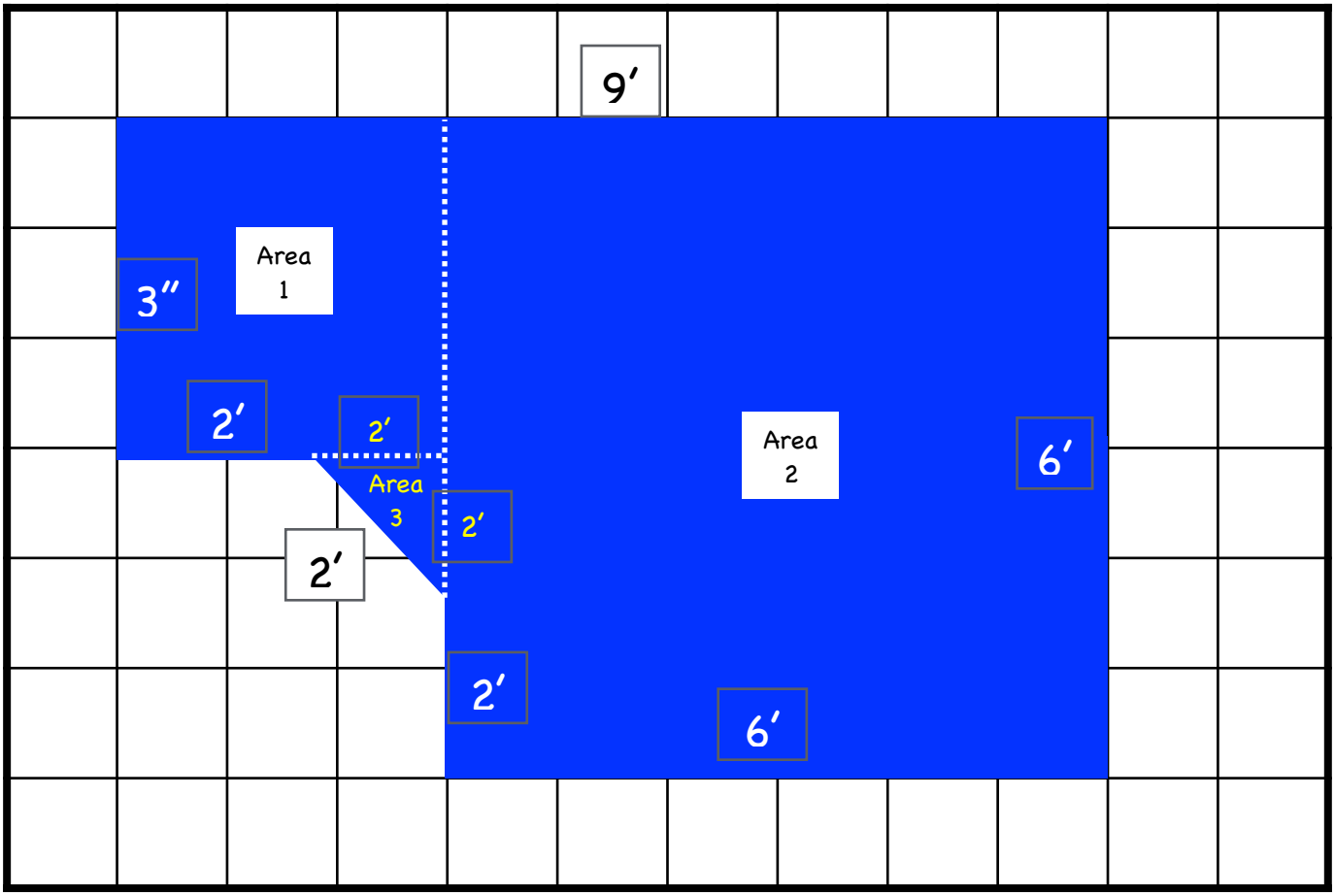
Determine the perimeter of each room.
You will need this to determine the cost of your baseboard.

PERIMETER
P = s1 + s2 + s3 + s4 + s5 + s6
P = 9 + 6 + 7 + 3 + 2 + 3
P = 30 ft

Baseboard is used to cover up the gap between the flooring and the wall.
Sometimes this gap is necessary to allow for expansion of flooring material.
Sometimes this gap is necessary to cover up imperfections.

FLOORING RENOVATIONS

AREA & PERIMETER IF TRIANGLES ARE REQUIRED



AREA 1

A = L x W

A = 3 x 3

A = 9 ft²

AREA 2

A = L x W

A = 6 x 6

A = 36 ft²

AREA 3

A = (B x H) ÷ 2

A = (2 x 2) ÷ 2

A = 2 ft²

TOTAL AREA

TA = A1 + A2 + A3

TA = 12 + 42 + 2

TA = 56 ft²

PERIMETER

P = s1 + s2 + s3 + s4 + s5 + s6 + s7

P = 9 + 6 + 6 + 2 + 2 + 2 + 3

P = 30 ft

FLOORING RENOVATIONS
PRODUCT COSTS

STEP 5

Choose a material for your floor covering and determine its cost per **square foot**.
This can be done through the internet, by phone, or in person by visiting a store.
The easiest way is to go to the Home Depot website.

Post a picture of the product you're choosing and write down its cost.
You should be able to pull the product from the computer onto your document.
If you go into a store, take a picture of it.

FLOORING PRODUCT SAMPLE

SAMPLE NAME

TrafficMASTER Canadian Hewn Oak - 6" x 36"

COST PER FTº

$2.48

STEP 6

Choose a material for your baseboard and determine its cost per **linear foot**.
Manufacturers determine the cost of baseboard differently. It is by length only.
That is why you have to figure out the perimeter of each room.
Baseboards are the same for your whole house, so you don't need different baseboard for each room.

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

Alexandria Moulding 5/8" x 5 9/16"- Colonial

COST PER LINEAR FOOT

$2.84

The cost of baseboards often come according to an eight-foot (96-inch) length.

Just divide the cost by 8
to determine the cost per lineal foot.

This sample costs $22.74 for an 8 foot length.

22.74 ÷ 8 = 2.84

STAIRS
AREA

Depending on your stair design, flooring for stairs requires either partial or whole covering. Sometimes flooring covers only the **tread**. Sometimes it covers both the **rise** and the **tread**. Baseboards are usually not put on stairs, so it is not necessary to calculate perimeter.

AREA OF THE RISES
Find the area of one rise and then multiply by the total number of rises on the stairs.

AREA OF THE TREADS
Find the area of one tread and then multiply by the total number of treads on the stairs.

RISE
the vertical part of the step

TREAD
the horizontal part of the step

AREA OF 1 RISE

A = L x W

A = 3 x 1

A = 3 ft²

AREA OF 10 RISES

A = 3 x 10

A = 30 ft²

AREA OF 1 TREAD

A = L x W

A = _____

A = 3 ft²

AREA OF 10 TREADS

A = 3 x 10

A = 30 ft²

TOTAL AREA

A = A-Rises + A-Treads

A = 30 + 30

A = 60 ft²

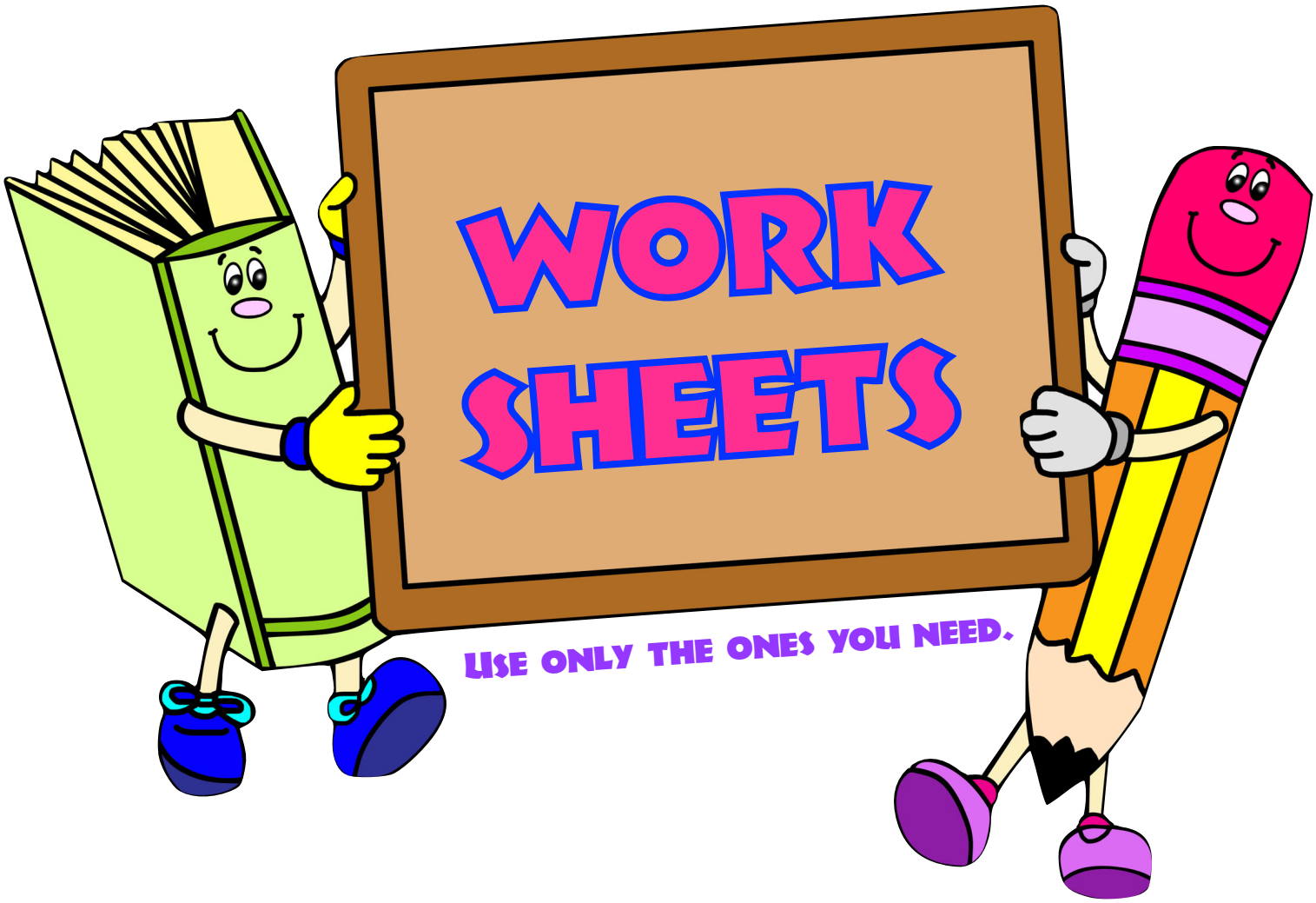
FLOORING RENOVATIONS
TOTAL COSTS

STEP 7

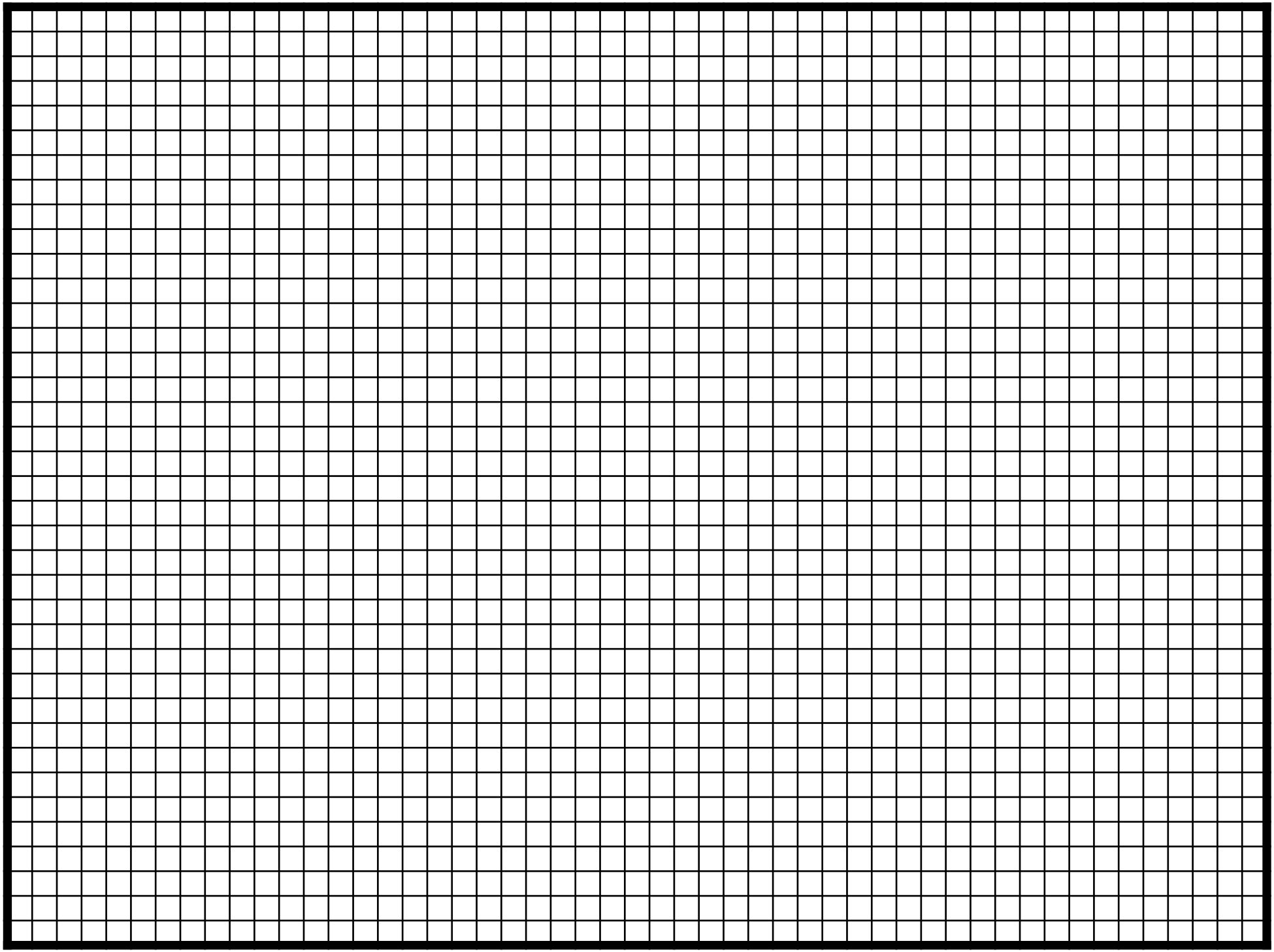
Use the square feet and perimeter calculations to determine the costs of flooring and baseboard for each room. Then find the total area, total perimeter, and total costs for the project. Do this by filling in the chart that has been given to you.

FLOORING & BASEBOARD COSTS						
ROOM	FLOORING			BASEBOARD		
	AREA	COST FTº	FLOOR COST	PERIMETER	COST FT	BASEBOARD COST
MAIN FLOOR						
Bathroom - 1st	48 FTº	2.48	119.04	2.84	30	85.20
Bathroom - 2nd						
Bedroom - Master						
Bedroom - 2nd						
Entry						
Hallway						
Kitchen						
Laundry Room						
Living Room						
MAIN FLOOR TOTAL						
2ND FLOOR						
2ND FLOOR TOTAL						
HOUSE TOTAL						

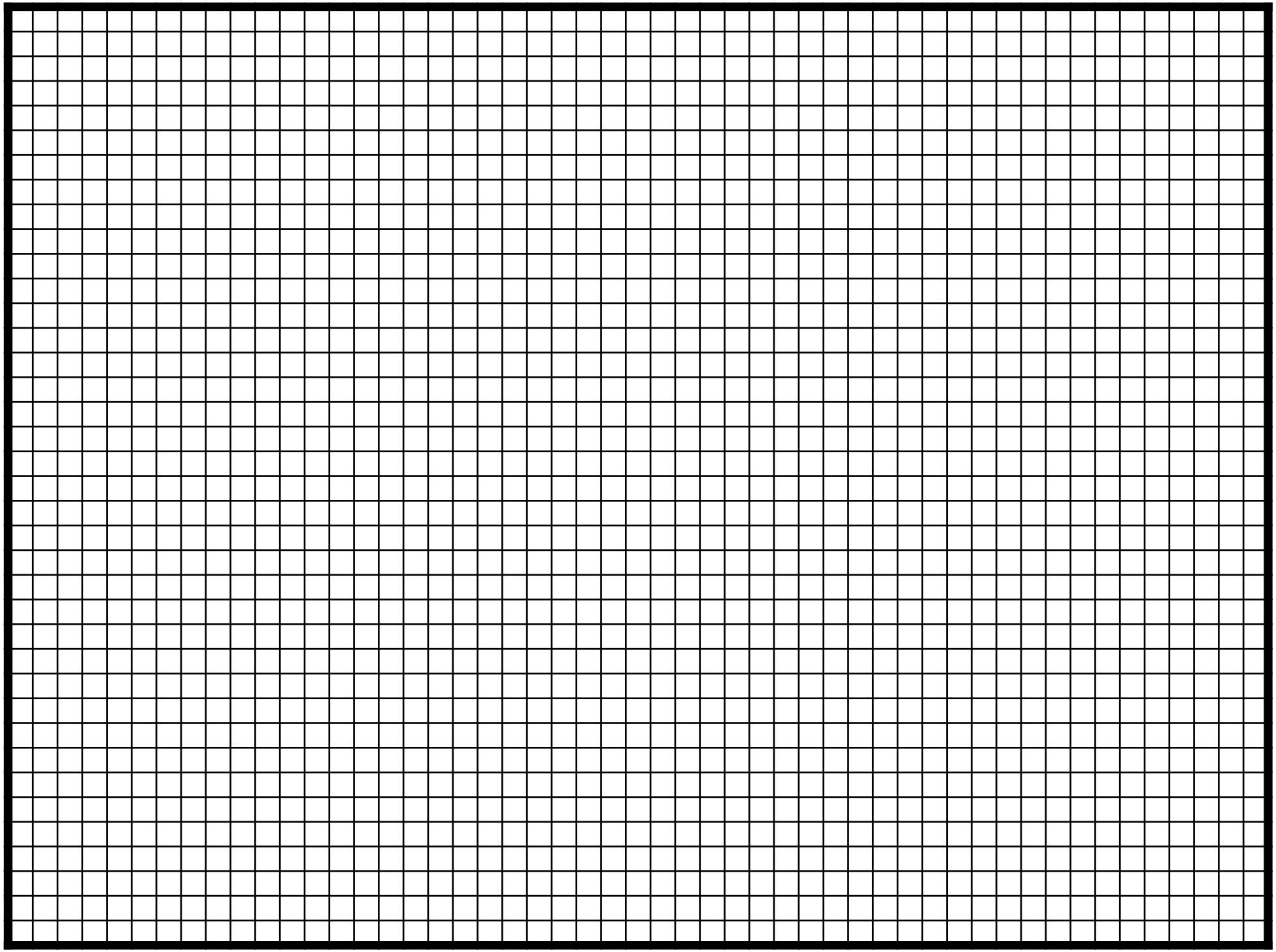
TOTAL FLOORING COST	+	TOTAL BASEBOARD COST	=	FINAL PROJECT COST
?		?		?


WORK
SHEETS
USE ONLY THE ONES YOU NEED.

GENERAL FLOOR PLAN - MAIN FLOOR



GENERAL FLOOR PLAN - 2ND FLOOR



BATHROOM FLOOR PLAN - 1ST
AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

BATHROOM FLOOR PLAN - 2ND

AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

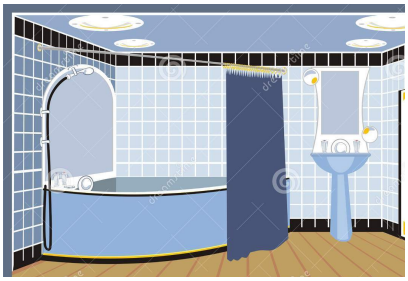
Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº



PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

BATHROOM FLOOR PLAN - 3RD

AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

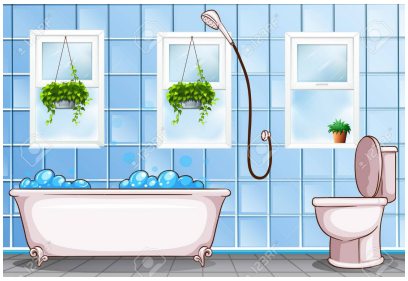
Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº



PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

BEDROOM FLOOR PLAN - MASTER

AREA & PERIMETER

AREA 1

A = _____

A = _____

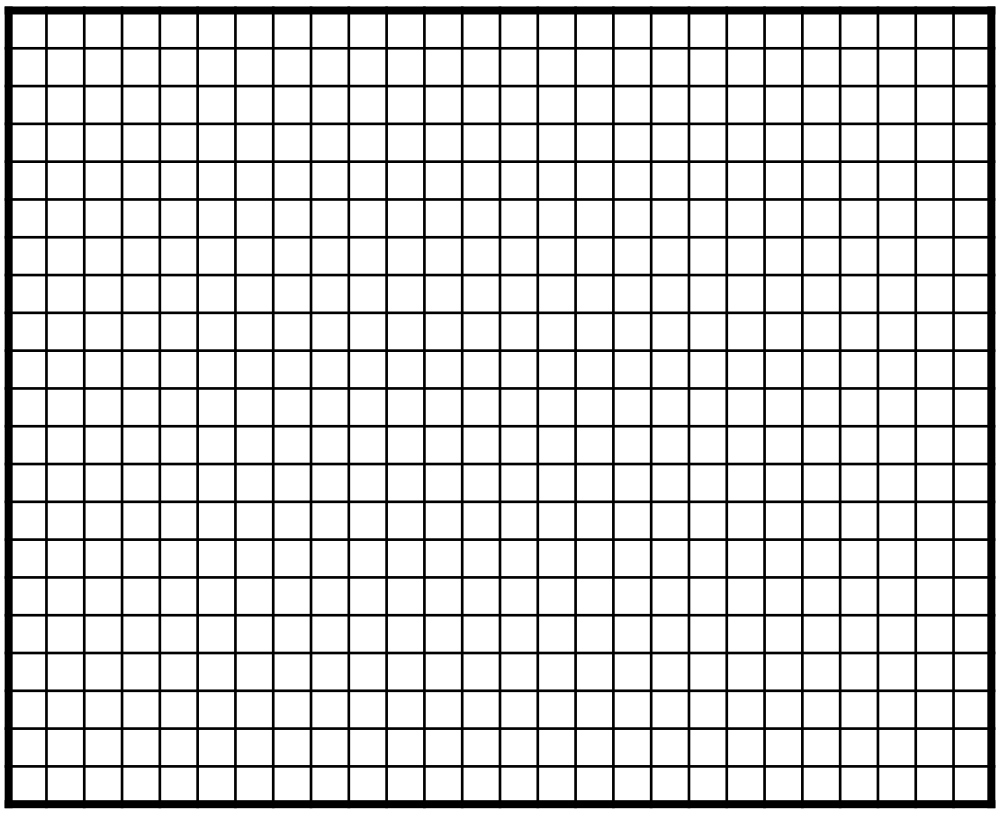
A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº



AREA 3

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

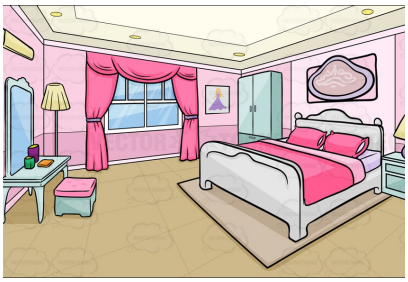
Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº



PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

BEDROOM FLOOR PLAN - 2ND
AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

BEDROOM FLOOR PLAN - 3RD

AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

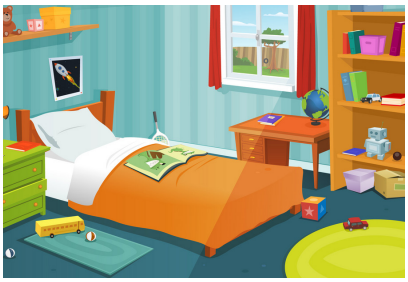
Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº



PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

BEDROOM FLOOR PLAN - 4TH

AREA & PERIMETER

AREA 1

A = _____

A = _____

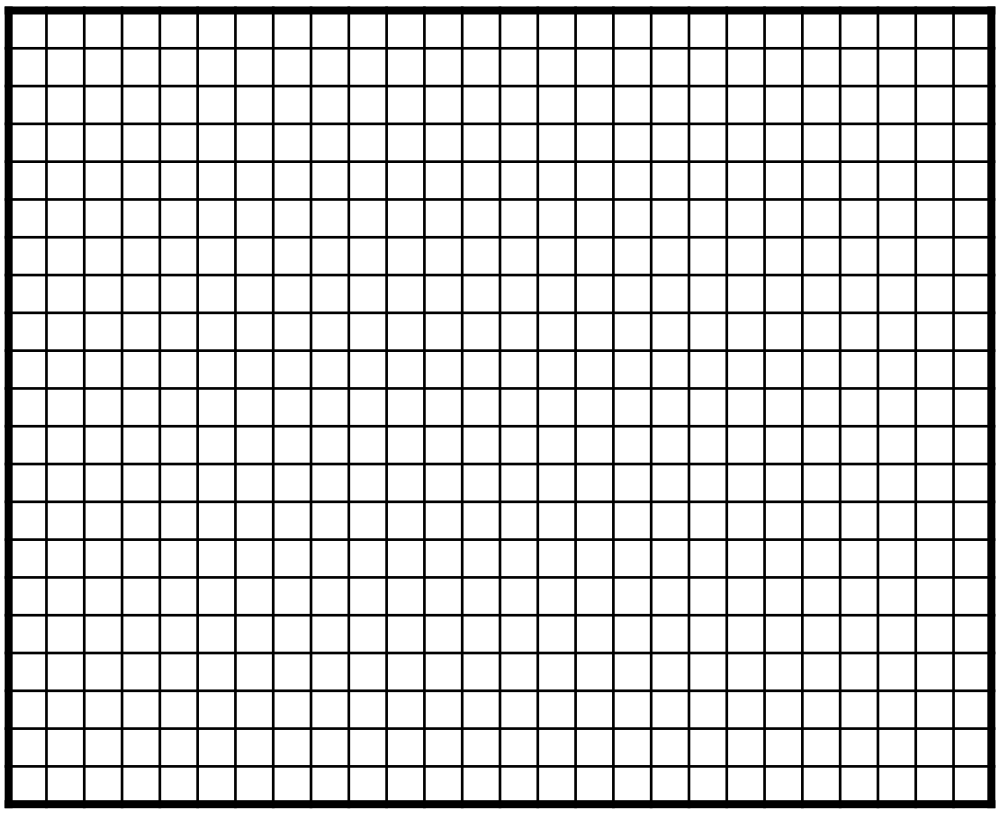
A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº



AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

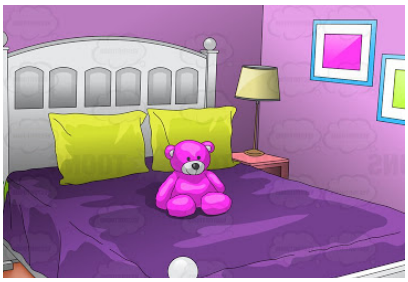
Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº



PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

DINING ROOM FLOOR PLAN

AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

ENTRY FLOOR PLAN - 1ST
AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

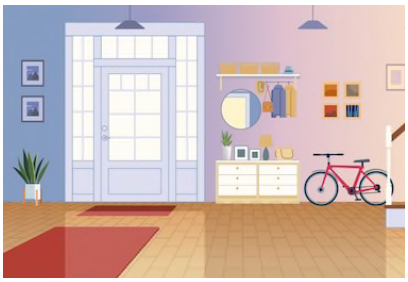
Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº



PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

ENTRY FLOOR PLAN - 2ND

AREA & PERIMETER

AREA 1

A = _____

A = _____

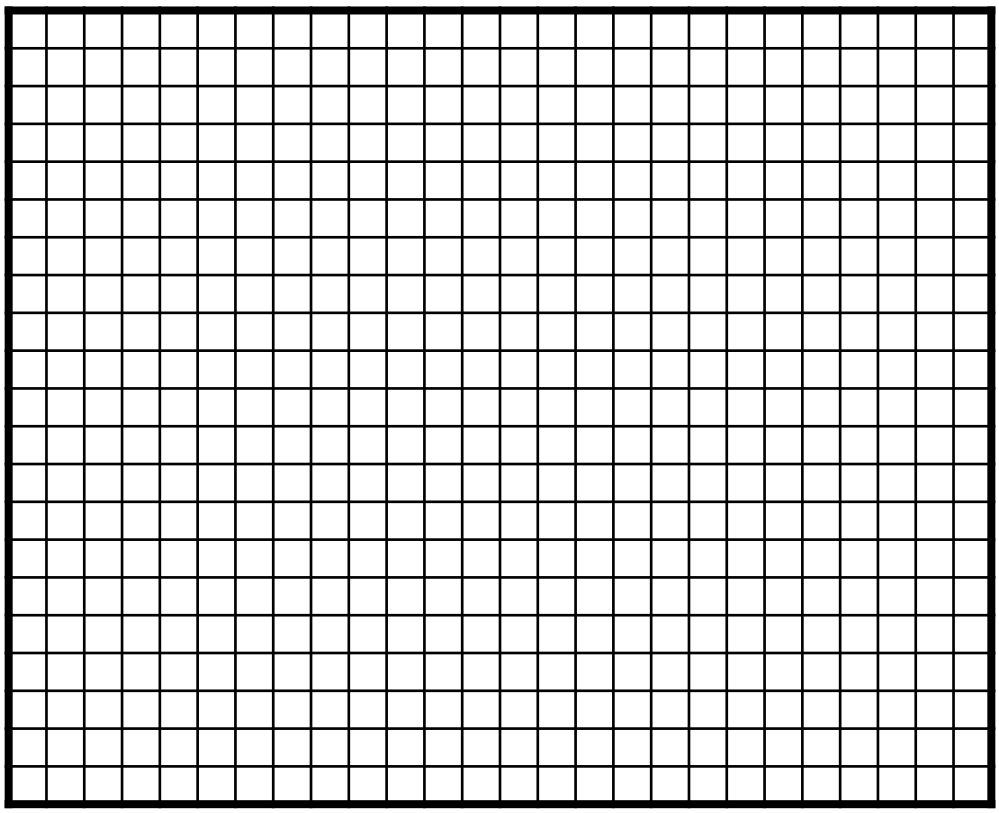
A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº



AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

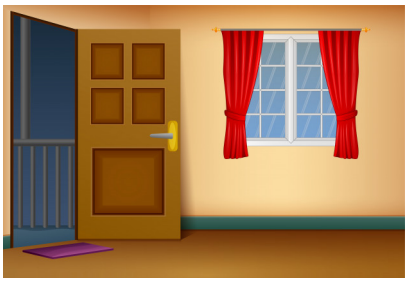
Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº



PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

ENTRY FLOOR PLAN - 3RD

AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

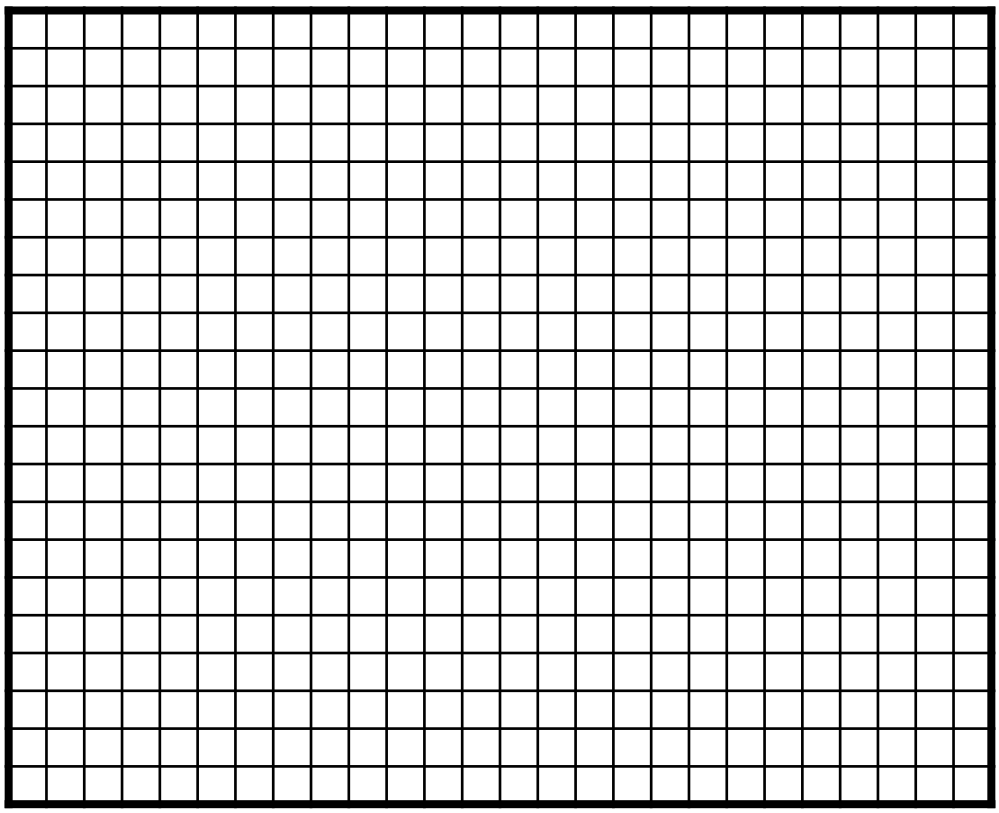
_____

COST PER FTº

COST PER LINEAR FOOT

FAMILY ROOM FLOOR PLAN

AREA & PERIMETER



AREA 1

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

GREAT ROOM FLOOR PLAN

AREA & PERIMETER

AREA 1

A = _____

A = _____

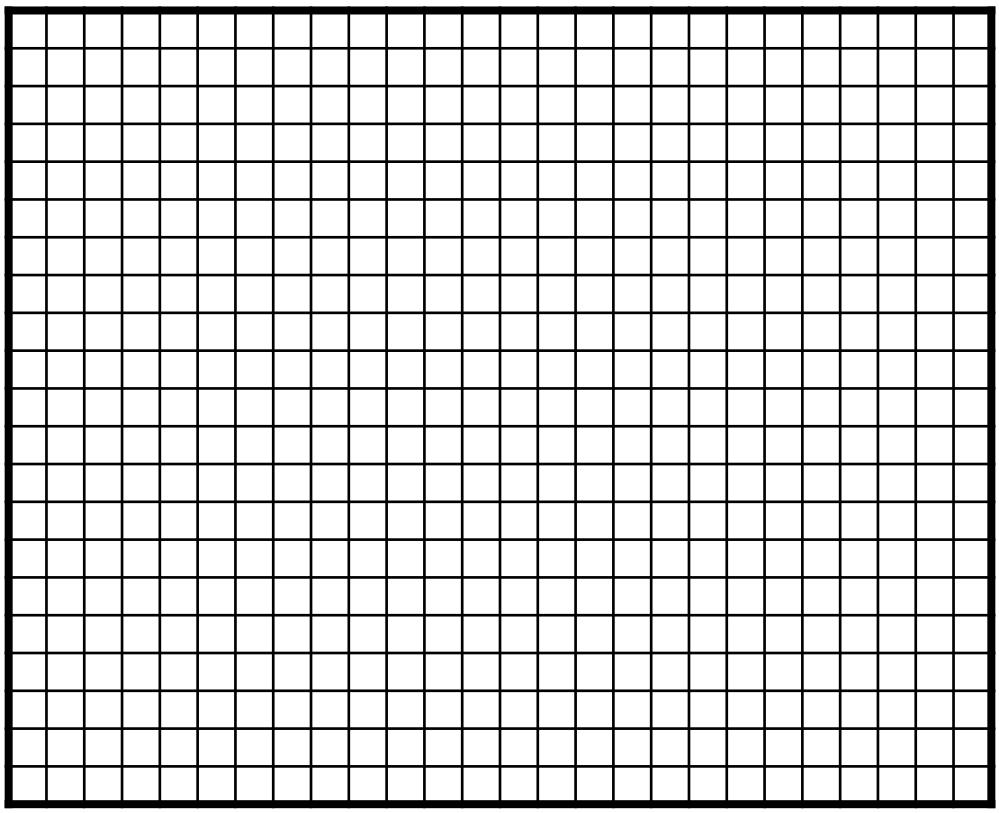
A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº



AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

HALLWAY FLOOR PLAN - 1ST
AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

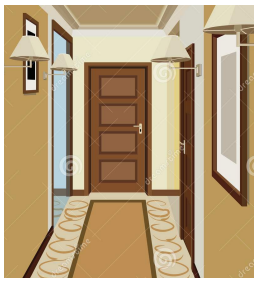
Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº



PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

HALLWAY FLOOR PLAN - 2ND

AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

HALLWAY FLOOR PLAN - 3RD
AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

KITCHEN FLOOR PLAN

AREA & PERIMETER

AREA 1

A = _____

A = _____

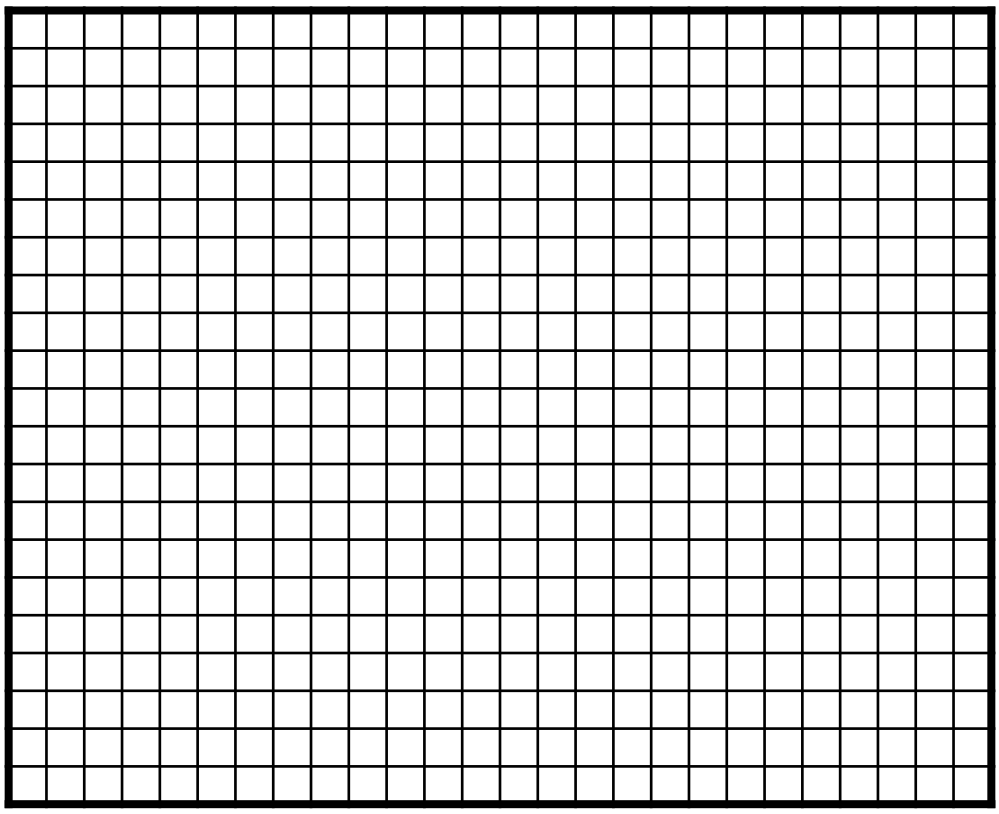
A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº



AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

LAUNDRY ROOM FLOOR PLAN

AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

LIVING ROOM FLOOR PLAN

AREA & PERIMETER

AREA 1

A = _____

A = _____

A = _____ ftº

AREA 3

A = _____

A = _____

A = _____ ftº

AREA 2

A = _____

A = _____

A = _____ ftº

AREA 4

A = _____

A = _____

A = _____ ftº

Use only the areas that are needed.

TOTAL AREA

A = _____

A = _____

A = _____ ftº

PERIMETER

P = _____

P = _____

P = _____ ft

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

BASEBOARD PRODUCT SAMPLE

SAMPLE NAME

_____

COST PER FTº

COST PER LINEAR FOOT

STAIRS AREA - 1ST SET

AREA OF 1 RISE

A = _____

A = _____

A = _____ ft²

AREA OF ___ RISES

A = _____

A = _____ ft²

AREA OF 1 TREAD

A = _____

A = _____

A = _____ ft²

AREA OF ___ TREADS

A = _____

A = _____ ft²

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

TOTAL AREA

A = A-Rises + A-Treads

A = _____

A = _____ ft²

COST PER FT²

STAIRS AREA - 2ND SET

AREA OF 1 RISE

A = _____

A = _____

A = _____ ft²

AREA OF ___ RISES

A = _____

A = _____ ft²

AREA OF 1 TREAD

A = _____

A = _____

A = _____ ft²

AREA OF ___ TREADS

A = _____

A = _____ ft²

FLOORING PRODUCT SAMPLE

SAMPLE NAME

_____

TOTAL AREA

A = A-Rises + A-Treads

A = _____

A = _____ ft²

COST PER FT²

FLOORING RENOVATION COSTS
MAIN FLOOR

FLOORING & BASEBOARD COSTS – MAIN FLOOR						
ROOM	FLOORING			BASEBOARD		
	AREA	COST FTº	FLOOR COST	PERIMETER	COST FT	BASEBOARD COST
MAIN FLOOR TOTAL						

FLOORING RENOVATION COSTS
SECOND FLOOR

FLOORING & BASEBOARD COSTS - SECOND FLOOR						
ROOM	FLOORING			BASEBOARD		
	AREA	COST FTº	FLOOR COST	PERIMETER	COST FT	BASEBOARD COST
SECOND FLOOR TOTAL						

FLOORING RENOVATION COSTS
OVERALL TOTAL

FLOORING & BASEBOARD COSTS - OVERALL TOTAL						
ROOM	FLOORING			BASEBOARD		
	AREA	COST FTº	FLOOR COST	PERIMETER	COST FT	BASEBOARD COST
MAIN FLOOR TOTAL						
SECOND FLOOR TOTAL						
OVERALL TOTAL						

TOTAL FLOORING COST

$ _____

+

TOTAL BASEBOARD COST

$ _____

=

FINAL PROJECT COST

$ _____