

House

Transformation

In Class

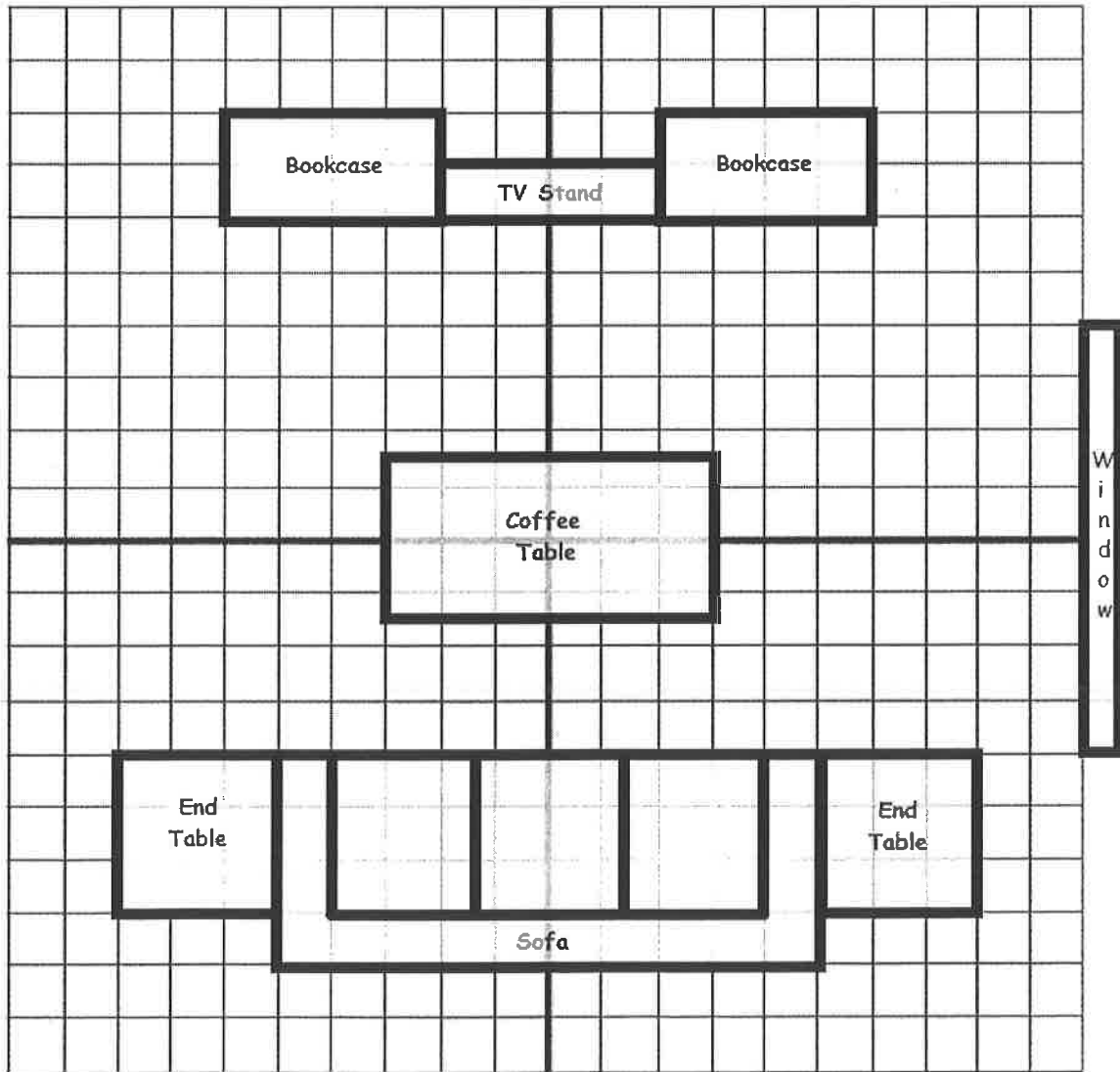
Project

Living Room Furniture Layout (Before)

After moving into a new apartment, the Harrisons decided on the simple layout below for their living room. (**The distance between gridlines is 1 foot.)

Find the four corner points of each piece of furniture in the diagram below:

Piece of Furniture	Corner 1 Coordinates	Corner 2 Coordinates	Corner 3 Coordinates	Corner 4 Coordinates
End Table				
Sofa				
End Table				
Coffee Table				
Bookcase				
TV Stand				
Bookcase				

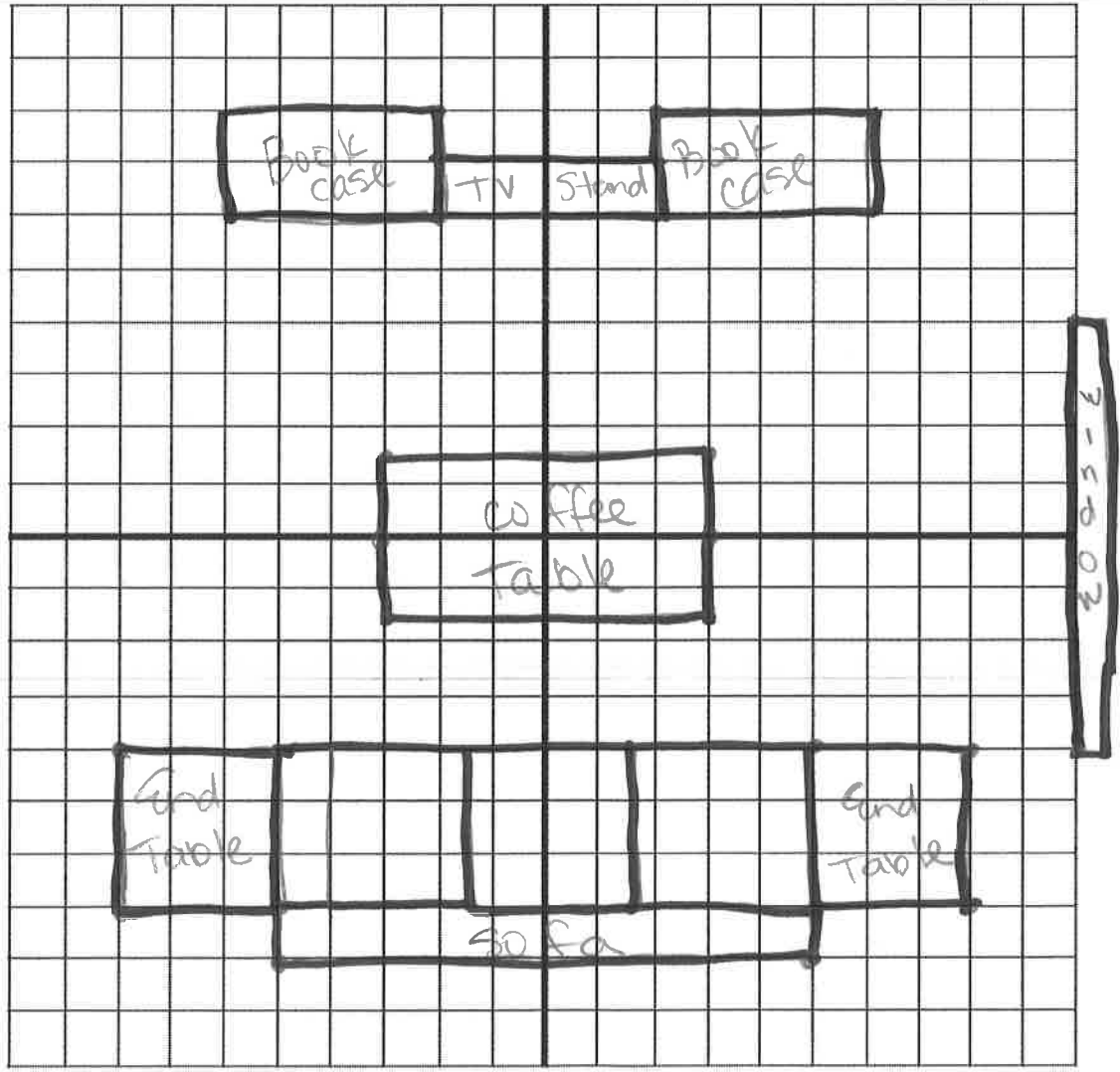


Monday

Living Room Furniture Layout (Translation)

In order to maximize their free space, the Harrisons decide to move the bookcases and TV stand back 2 feet until the bookcases are against the wall. In additions, they want to have 5.5 feet of space between the front of the TV stand and the coffee table and keep the 2.5 feet of space between the coffee table and sofa. The end tables will move with the sofa so that they stay aligned. Find the four corner points of each piece of furniture in the new setup:

Piece of Furniture	Corner 1 Coordinates	Corner 2 Coordinates	Corner 3 Coordinates	Corner 4 Coordinates
End Table				
Sofa				
End Table				
Coffee Table				
Bookcase				
TV Stand				
Bookcase				



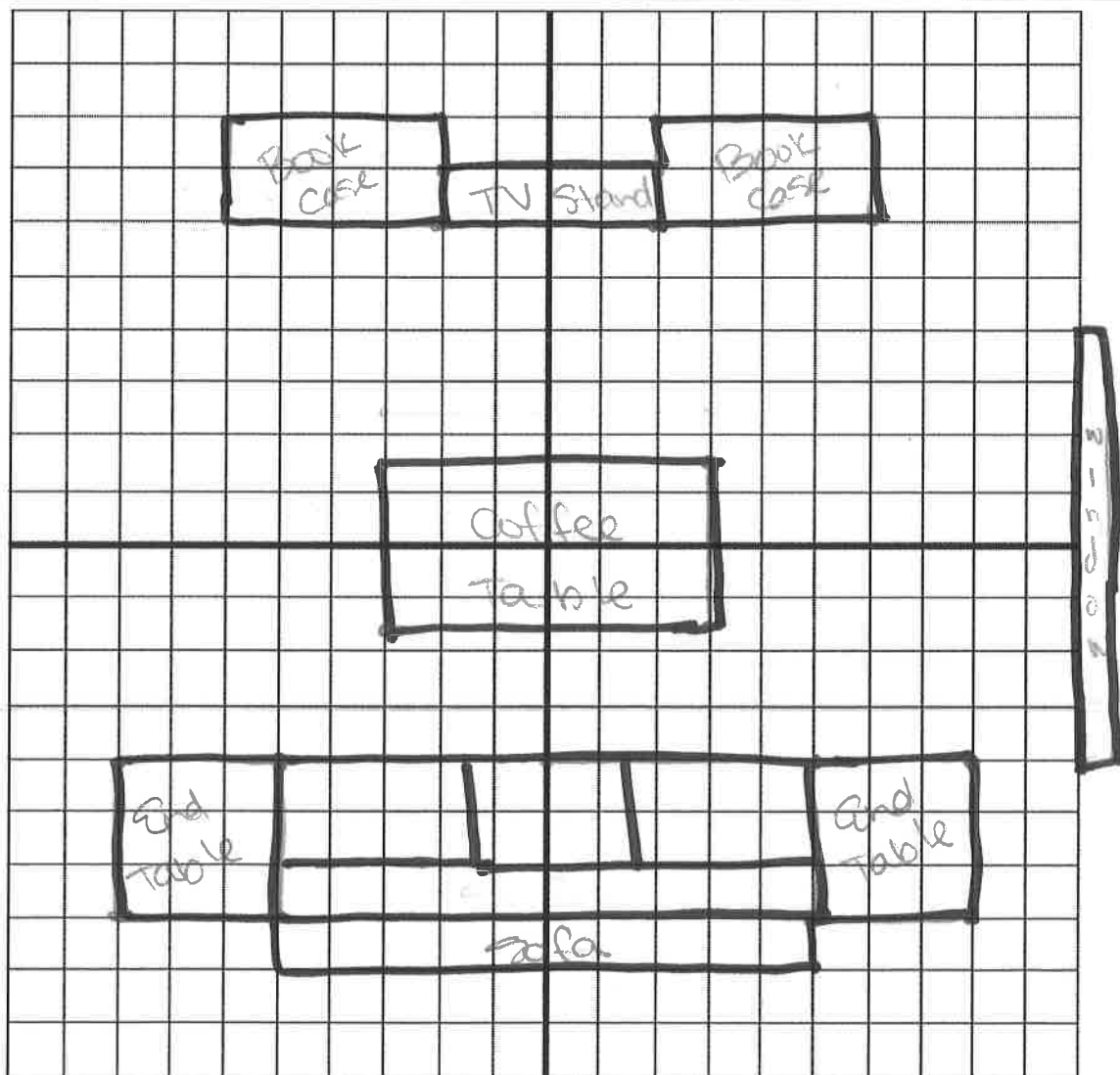
- * The original is in black ink.
- * Please translate in pencil first, then in a color of choice.

Tuesday

Living Room Furniture Layout (Reflection)

From the "before" layout, the Harrisons instead decide that they want to "flip" the room so that everything faces the other direction. They want to reflect every piece of furniture in the room about the center line (the x-axis). Find the four corner points of each piece of furniture in the new layout:

Piece of Furniture	Corner 1 Coordinates	Corner 2 Coordinates	Corner 3 Coordinates	Corner 4 Coordinates
End Table				
Sofa				
End Table				
Coffee Table				
Bookcase				
TV Stand				
Bookcase				



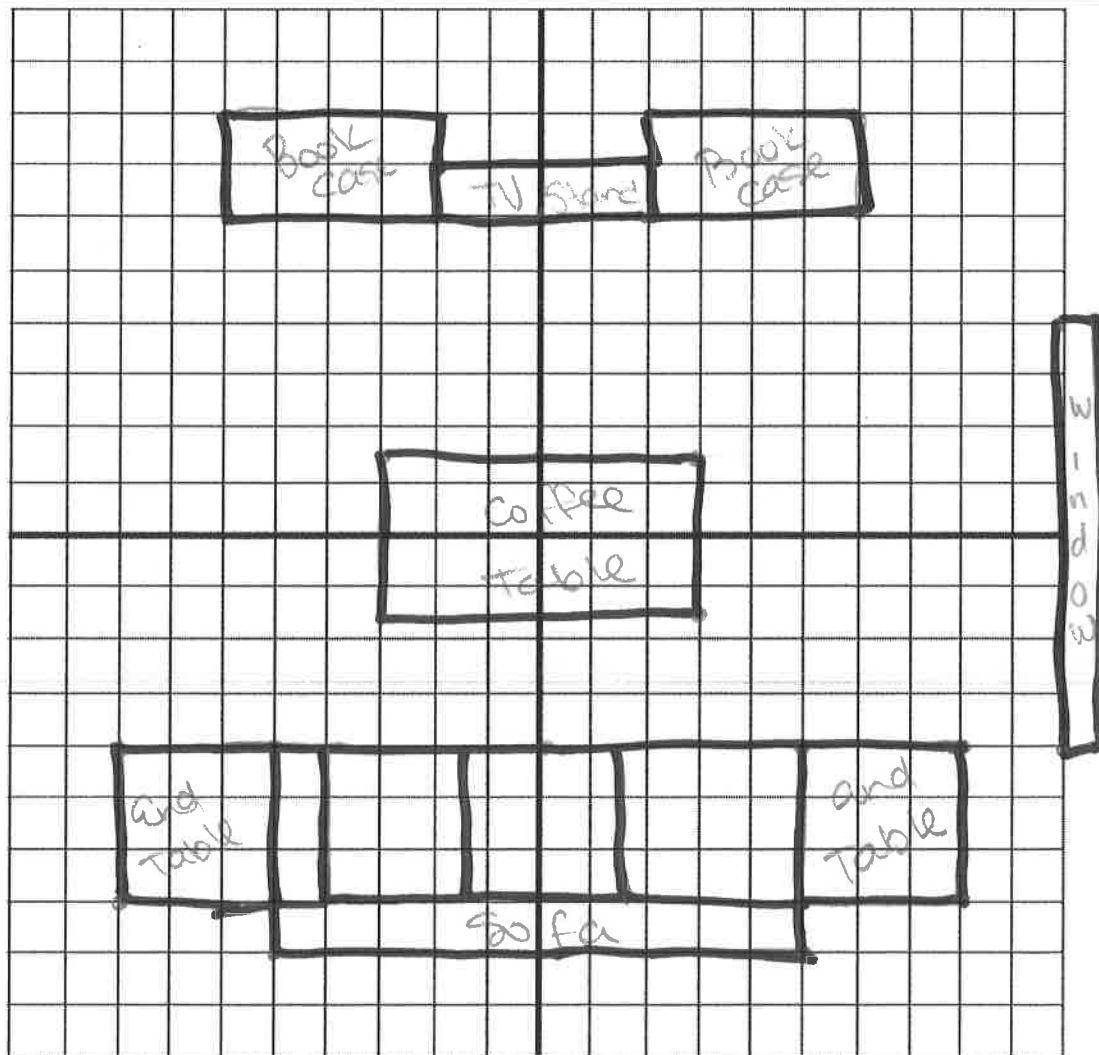
- * The original is in black ink,
- * Please reflect in pencil first, then in a color of choice.

Thursday

Living Room Furniture Layout (Rotation)

After originally having the living room set up as in the "before" layout, the Harrison's found that the glare from the sun coming through the window made it difficult to watch TV. They decide to rotate the room about the center (the origin) 90 degrees ~~clockwise~~ ^{counterclockwise} so that the window is behind the TV. Find the four corner points of each piece of furniture in the new layout:

Piece of Furniture	Corner 1 Coordinates	Corner 2 Coordinates	Corner 3 Coordinates	Corner 4 Coordinates
End Table				
Sofa				
End Table				
Coffee Table				
Bookcase				
TV Stand				
Bookcase				



- * The original is in black ink
- * Please rotate in pencil first, then in a color of choice