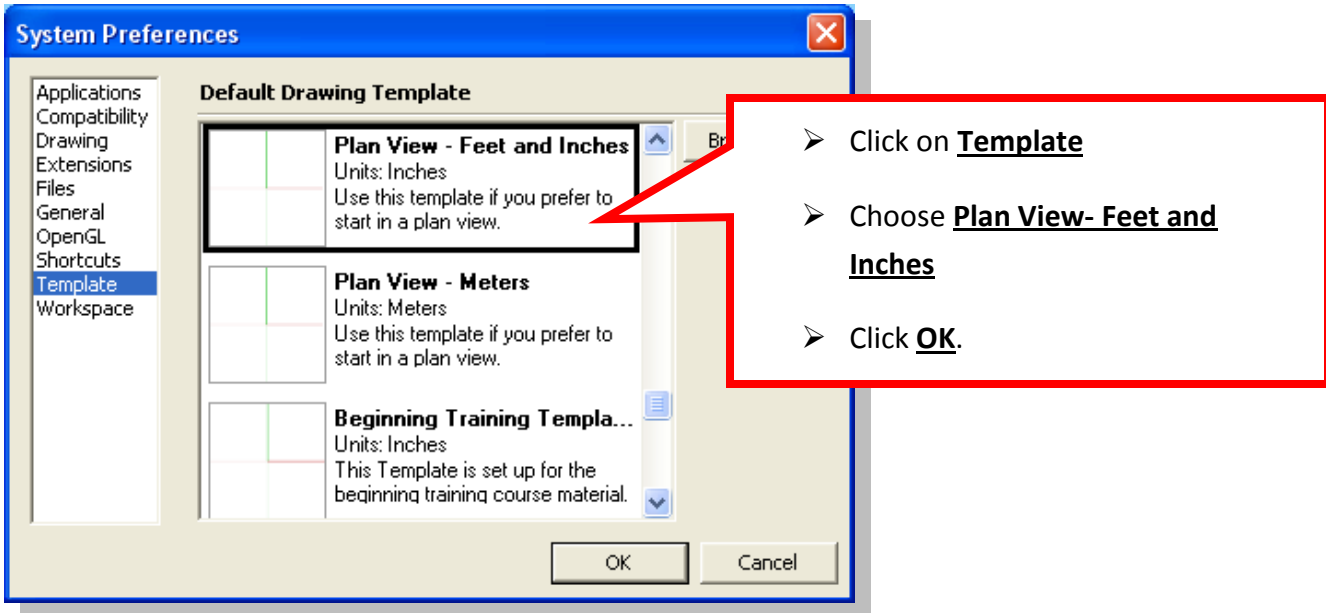


Create Fractions in Google Sketch up

Open the Plan View- Feet and Inches template from the start up screen.

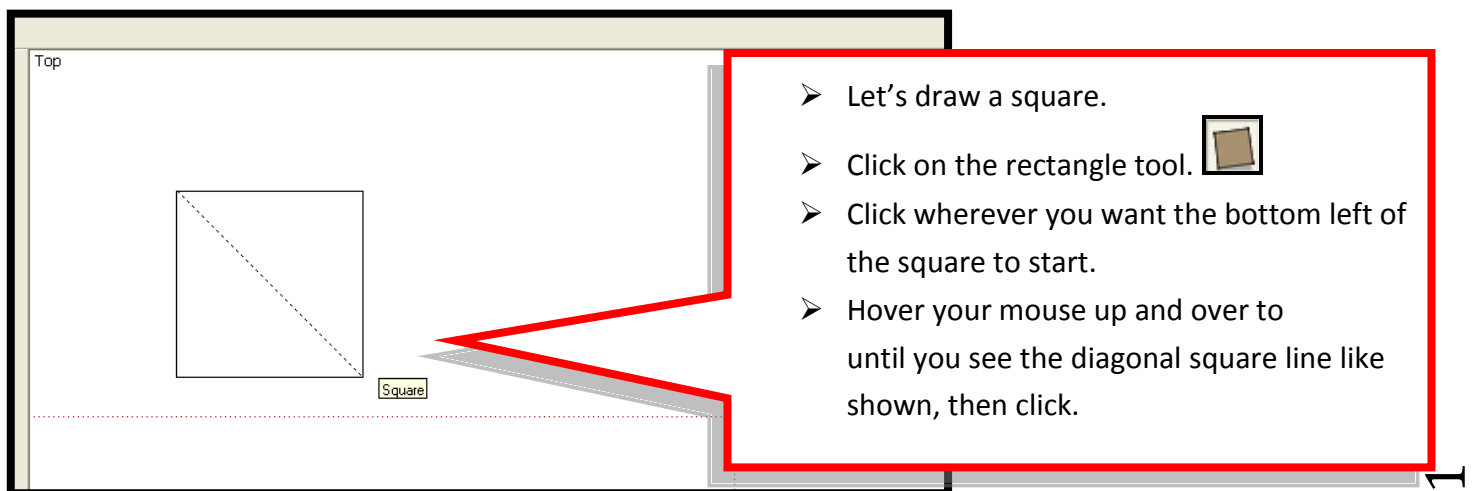
If you are already in sketch up – you can switch to this view: Window>Preferences>Template

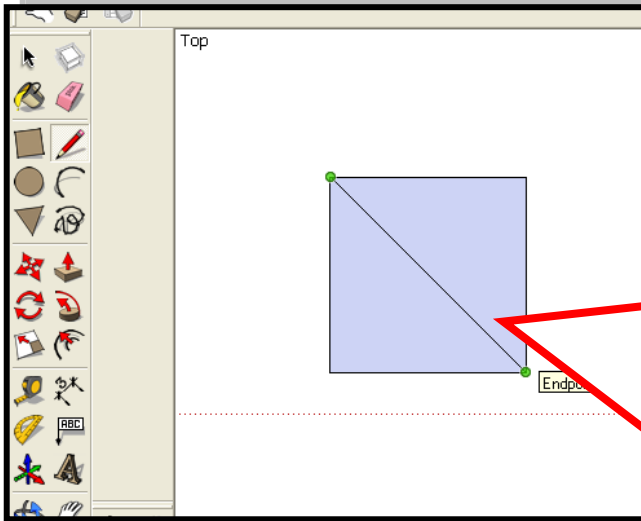



Now click on File>New

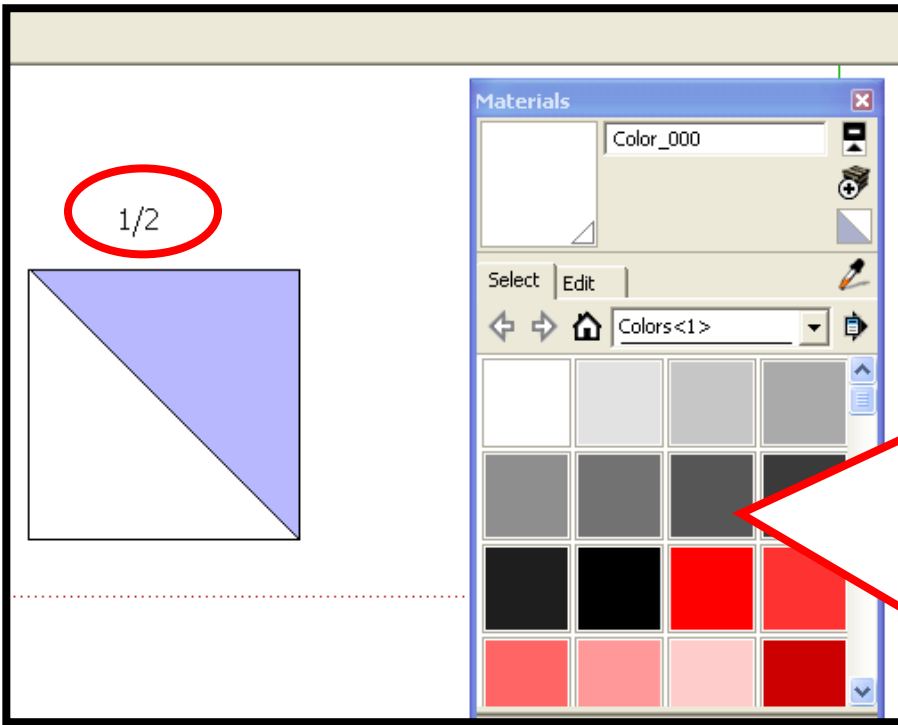
Notice you are in the top view. That means you are viewing this like a bird's eye view from on top.


The red and green axis lines make up the ground plane on which you will be drawing.



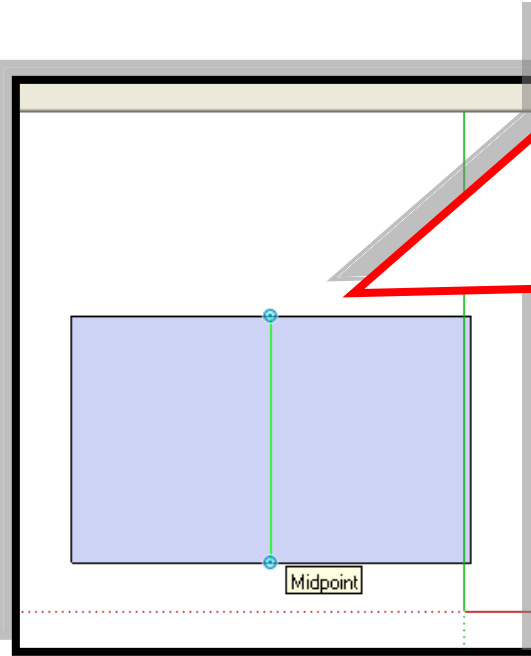




- Once you click the square is now formed (closed edges.)
- Click on **the pencil line tool.** 
- Click on the top left hand corner (vertex) which will say endpoint when you hover your mouse over it.
- Hover your mouse to the bottom right hand corner (vertex) until it says endpoint and then click.
- You have now divided your square into two equal parts.

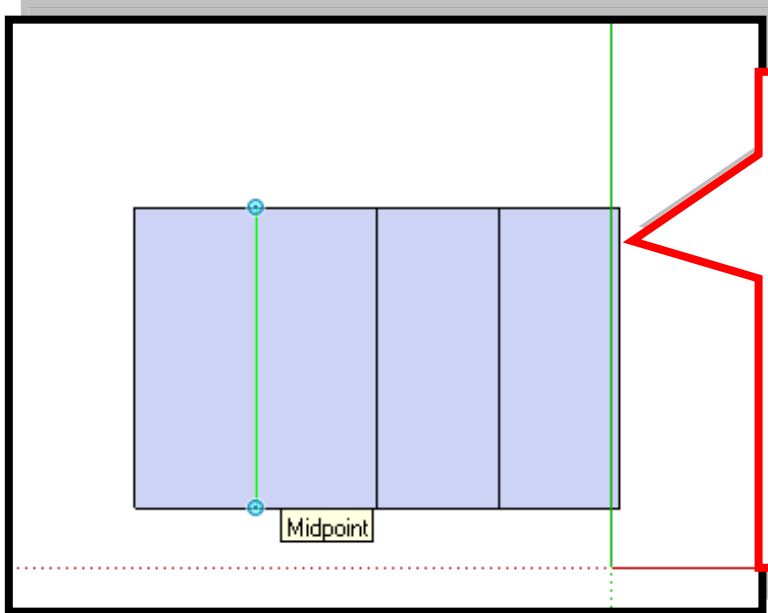


- Click on the paint bucket tool. 
- Choose a color or texture.
- Click on one half of the square to color white.
- Color the other side another color.
- Click on the ABC text tool 
- Click right above your fraction and type $\frac{1}{2}$ or one out of two is shaded.
- Press the space bar to exit this tool.

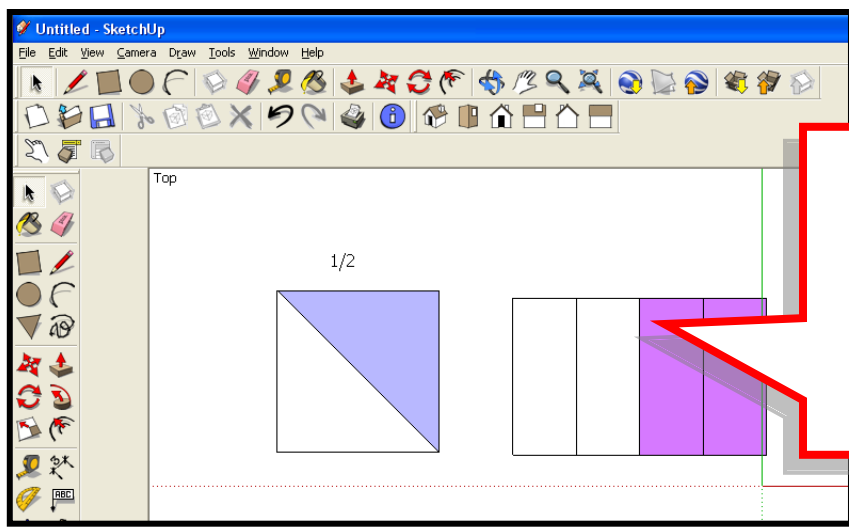
Now let's draw some more 2D shapes and divide them into parts (fractions.)



- Click on the rectangle tool again 
- This time draw a rectangle and divide it into 4 equal parts.
- Let's divide this rectangle in half.
- Click on the pencil line tool. 
- Hover your mouse over the top horizontal line until you see a blue dot that says midpoint- then click.
- Hover you mouse straight down until you see the midpoint again and then click. Now your rectangle is divided into halves.

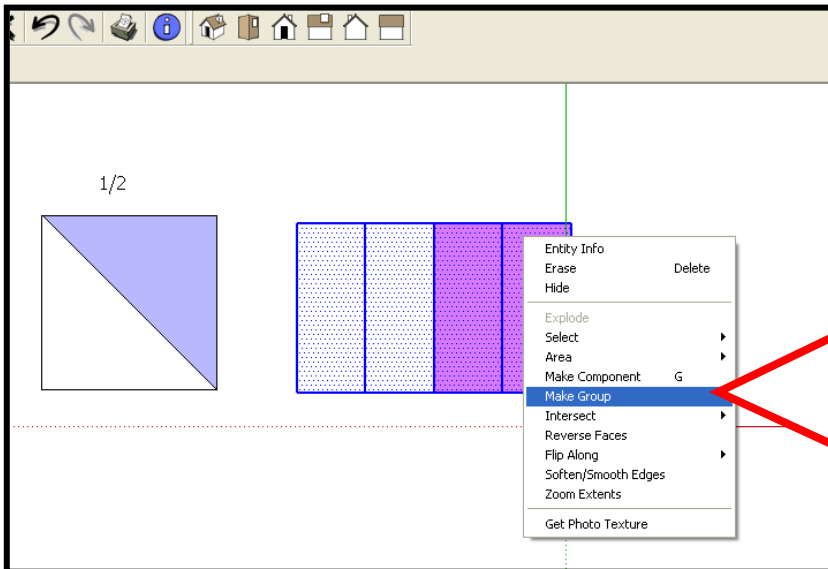


- Click on the pencil line tool and hover to find the midpoint of each half.
- Click on each top midpoint line and then hover to the bottom midpoint line and then click.
- Repeat until you have 4 equal parts.



- Click on the paint bucket and color 2 parts white and 2 parts another color.
- Use the ABC text tool to label fraction. $\frac{1}{2}$ or $\frac{2}{4}$

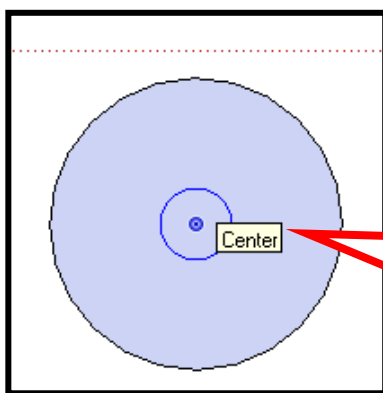
Note- if you wanted to move your rectangle, it would be very difficult because it is now divided into 4 pieces. Let's learn how to group an object you create.




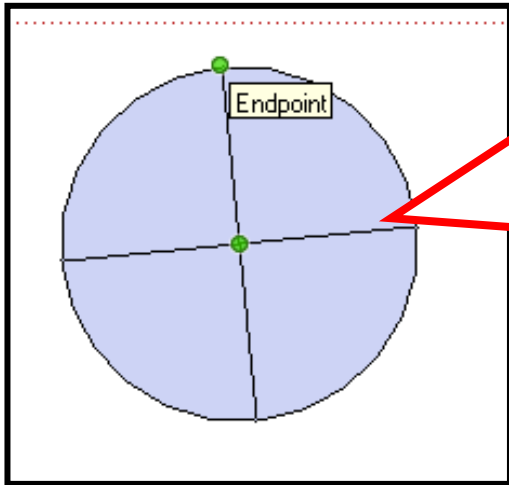
- To group an object
- Triple click on the object or select it by dragging your mouse over all of its parts.
- Right click with your mouse.
- Choose **make group**.

Now you will be able to click on the Move tool and move the entire rectangle wherever you like and all the pieces will stay together.

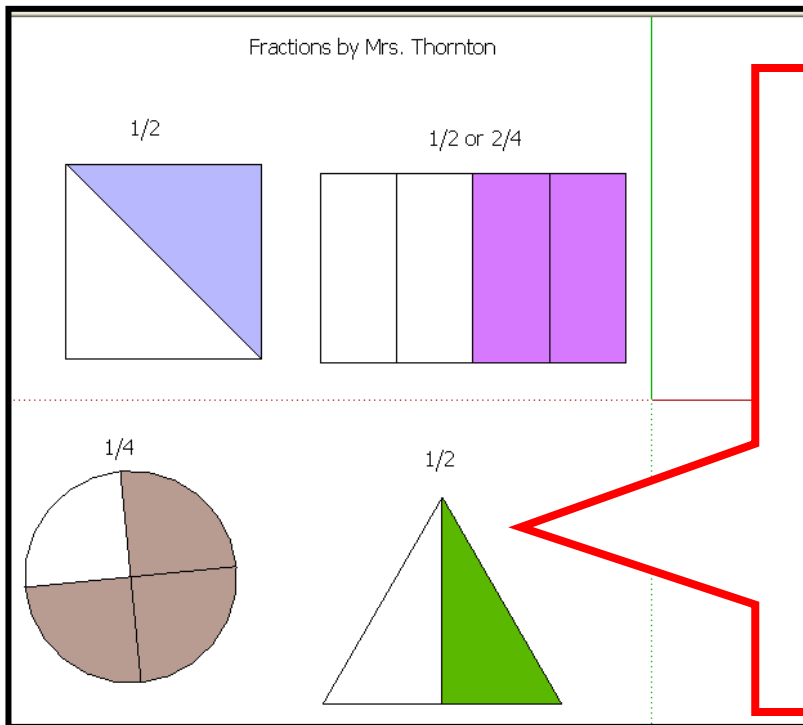
Let's create a circle and divide it into 4 equal parts.



- Click on the circle tool. 
- Click where you want the center of the circle.
- Hover your mouse out to the size you want and click.
- Click on the pencil line tool. Hover to find the center point and click as shown.



- Hover your mouse around the outside edge until you find an endpoint then click.
- Find the endpoint on the exact other side and click.
- Repeat until you have divided the circle into 4 equal parts.
- Use the paint bucket to color in parts of your circle and label using the ABC text tool.



- Click on the triangle (polygon tool) to get 3 sides, type 3S right after you select the tool.
- Click where you want the bottom of the triangle to be and hover up and click to draw it.
- You can change the polygon tool to any number of sides.
- Create some more shapes and divided them into fractions and label.

- **Extension: Go back and add statements for each fraction with the ABC text tool.**

Example: for the square- we painted $\frac{1}{2}$ of the square blue.

- **Extra Practice:** Create the following shapes and divide them into fractions to represent the following statements.

1. Sam ate $\frac{2}{3}$ of the candy bar.
2. Jan divided the pizza into 8 parts and ate 3 slices.
3. Rick gave away $\frac{2}{4}$ of the pie he baked.