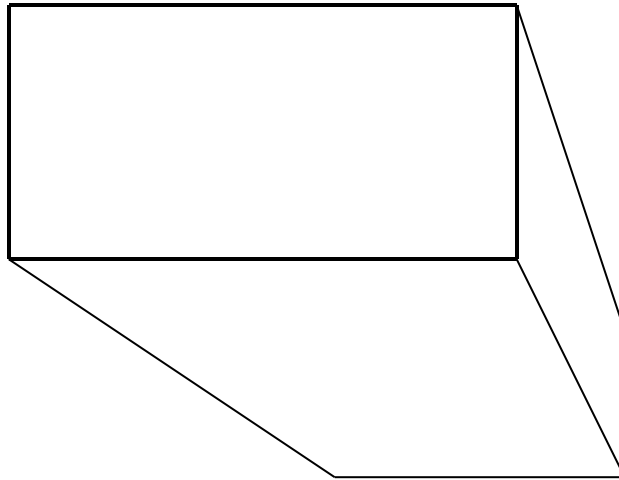


1. On the perspective drawing of a box-shaped package below, draw string or ribbon wrapped decoratively around the box, so that each side is divided with $1/4$ on one side of the string and $3/4$ is on the other. Show your work lightly in pencil, and do the final result more darkly.



2. Attached you will find several copies of a fence along the side of road. Use them for the following exercises. (At the end are extra copies, in case you need them.)
 - (a) (This is Exercise 1 from Lesson 4 in *Lessons in Mathematics and Art*.) Within the solid outline of the fence, draw 7 vertical fenceposts to create a fence with 8 equal sections.
 - (b) (This is Exercise 2 from Lesson 4 in *Lessons in Mathematics and Art*.)

This exercise, as well as the next two are "thinking" exercises. They all use copies of the fence. They don't use anything more

sophisticated than the ideas we've used in class to get our results (parallel lines, similar triangles, diagonals bisect each other, etc), but you have to give yourself the time and opportunity to have the ideas, so allow several days for them, and brainstorm with others – they could be in the class, but they don't have to be, they're fun enough and interesting enough, I bet you could get friends outside of class to work on them too – my 11-year-old thought they were great! He didn't figure them out, but he enjoyed thinking about them.

Considering the solid outline to be one section of fence, draw another section of fence that is an exact duplicate of the original, with the top of its near fencepost at the point P .

Note: There is nothing special about where P is – it could be anywhere on the extension of the top fence rail. Sometimes we just want to draw exact an copy of a rectangle but want the new rectangle to be spaced apart from the original. To help ensure that your fence is in the same plane as the original, extensions of the fence-top and fence-bottom have been provided.

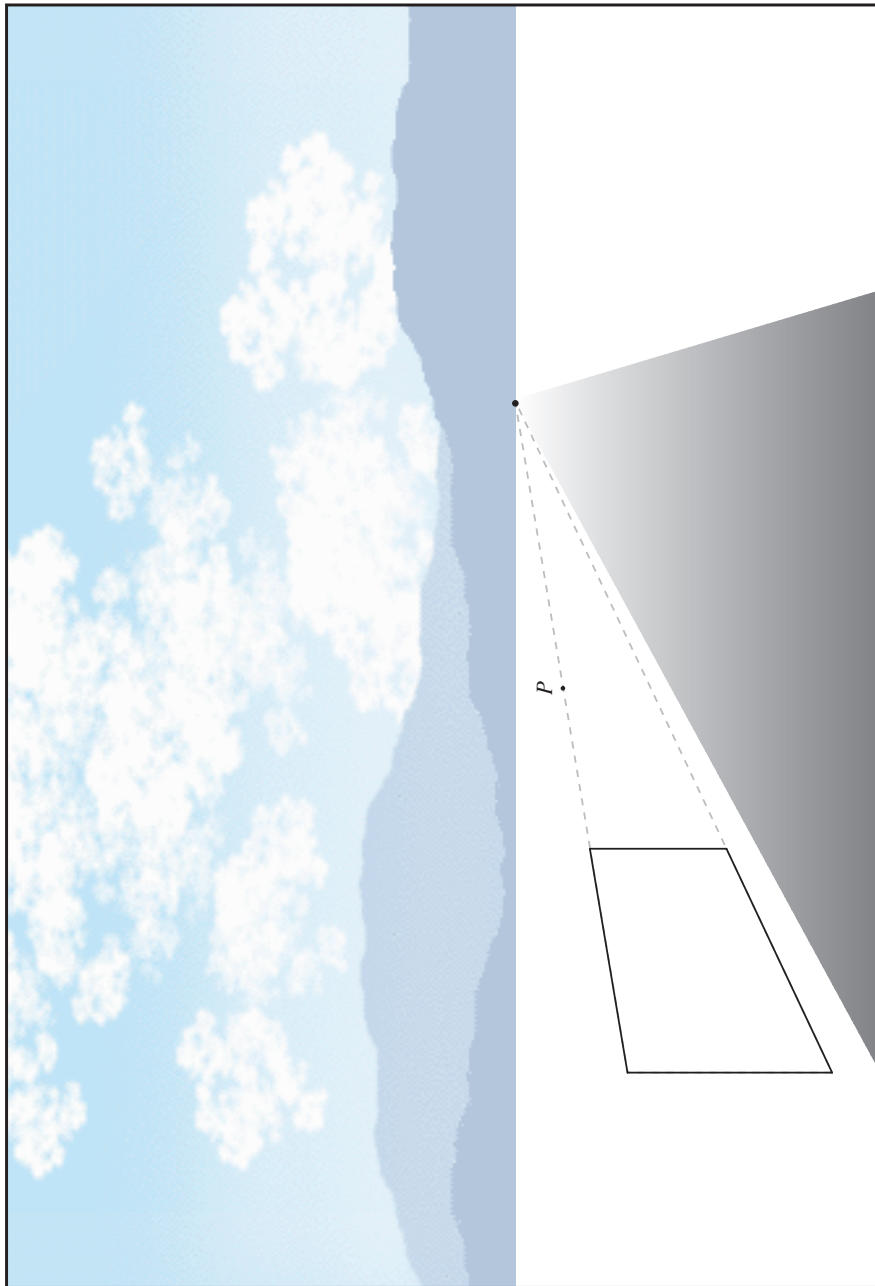
- (c) (This is Exercise 3 from Lesson 4 in *Lessons in Mathematics and Art*.)

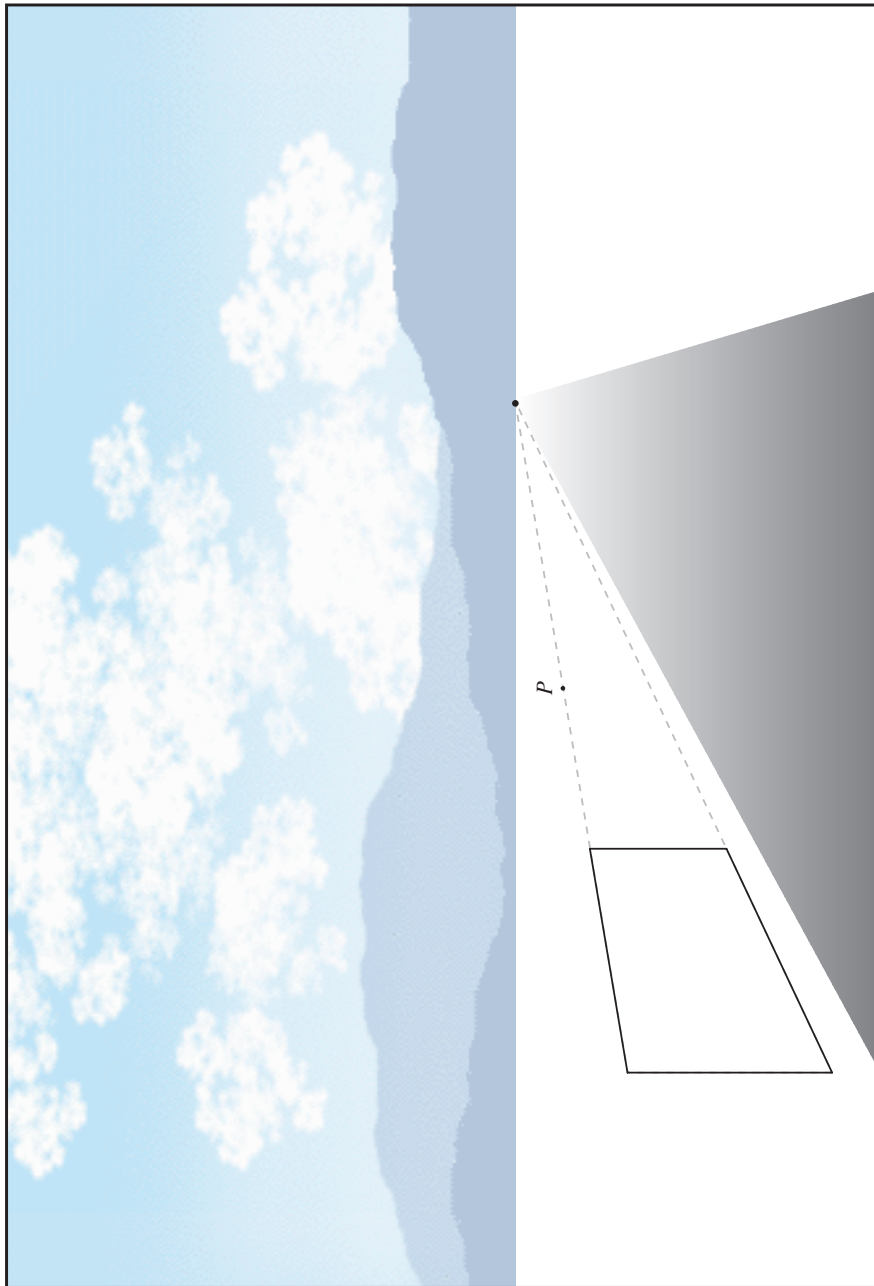
Draw a duplicate of the section of fence (in the same plane as the original), with the top of its *far* fencepost at the point P .

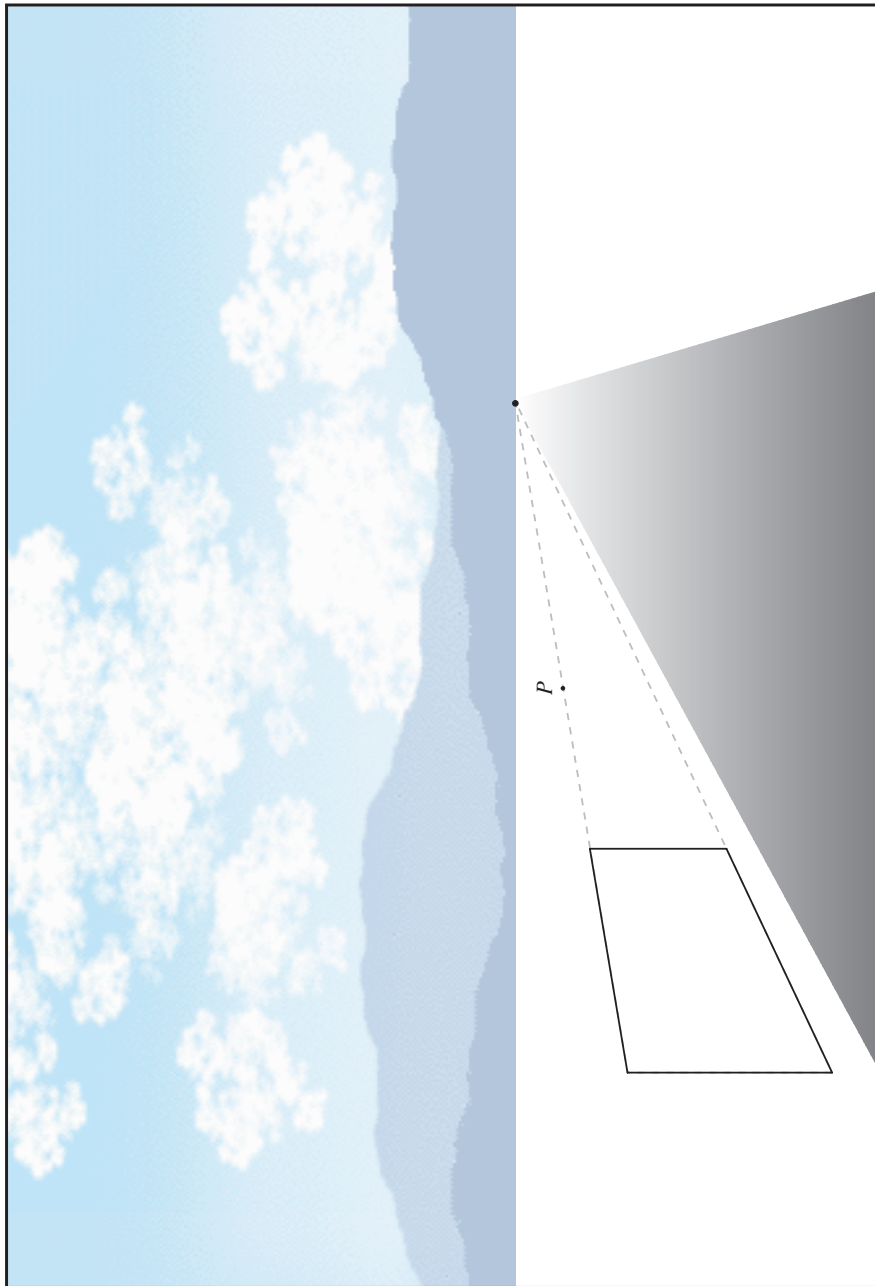
Again, there is nothing special about where P is, it could be anywhere on the extension of the top fence rail. Your new rectangle may or may not overlap with the original section of fence. This is handy for drawing such things as a partially open sliding glass door or window, for instance.

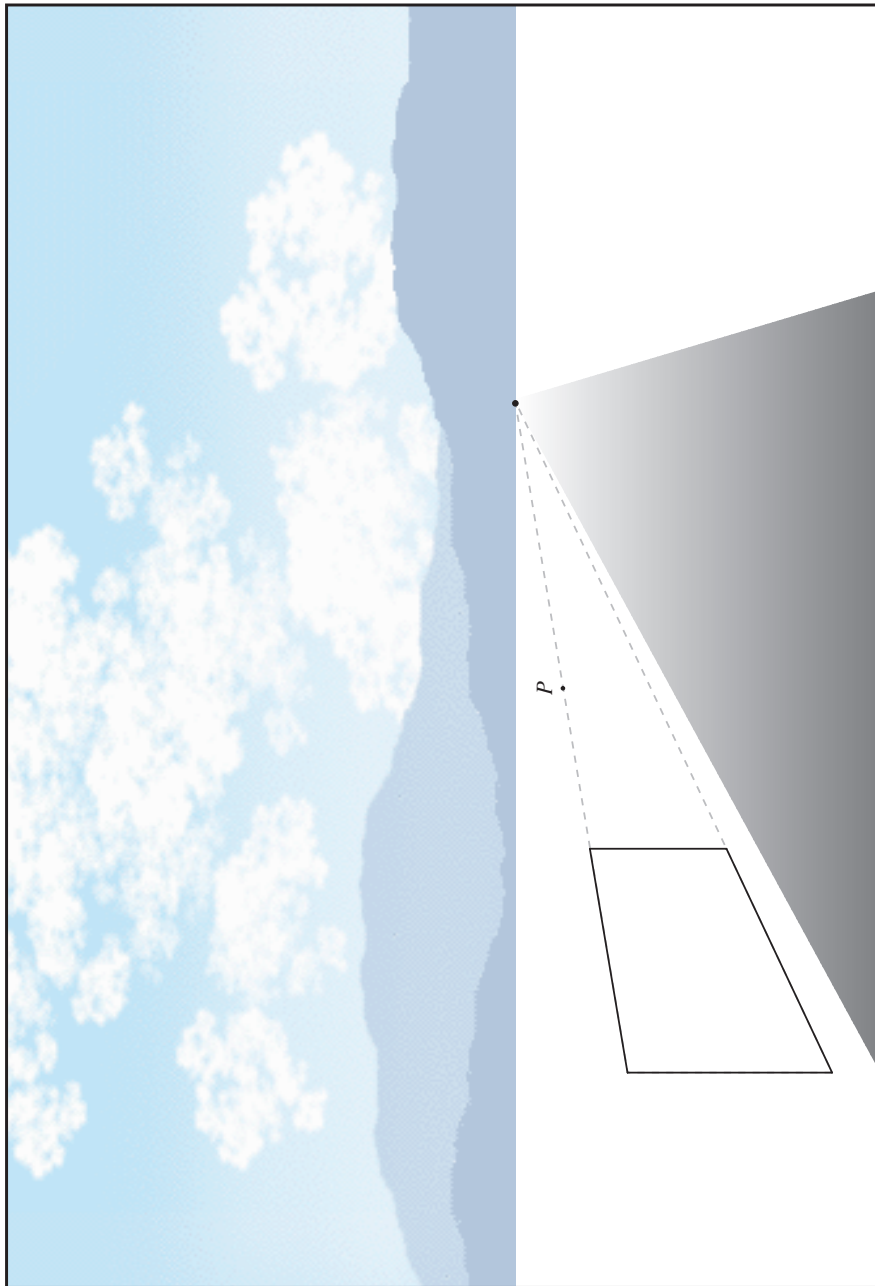
- (d) (This is exercise 4 from Lesson 4 in *Lessons in Mathematics and Art*.)

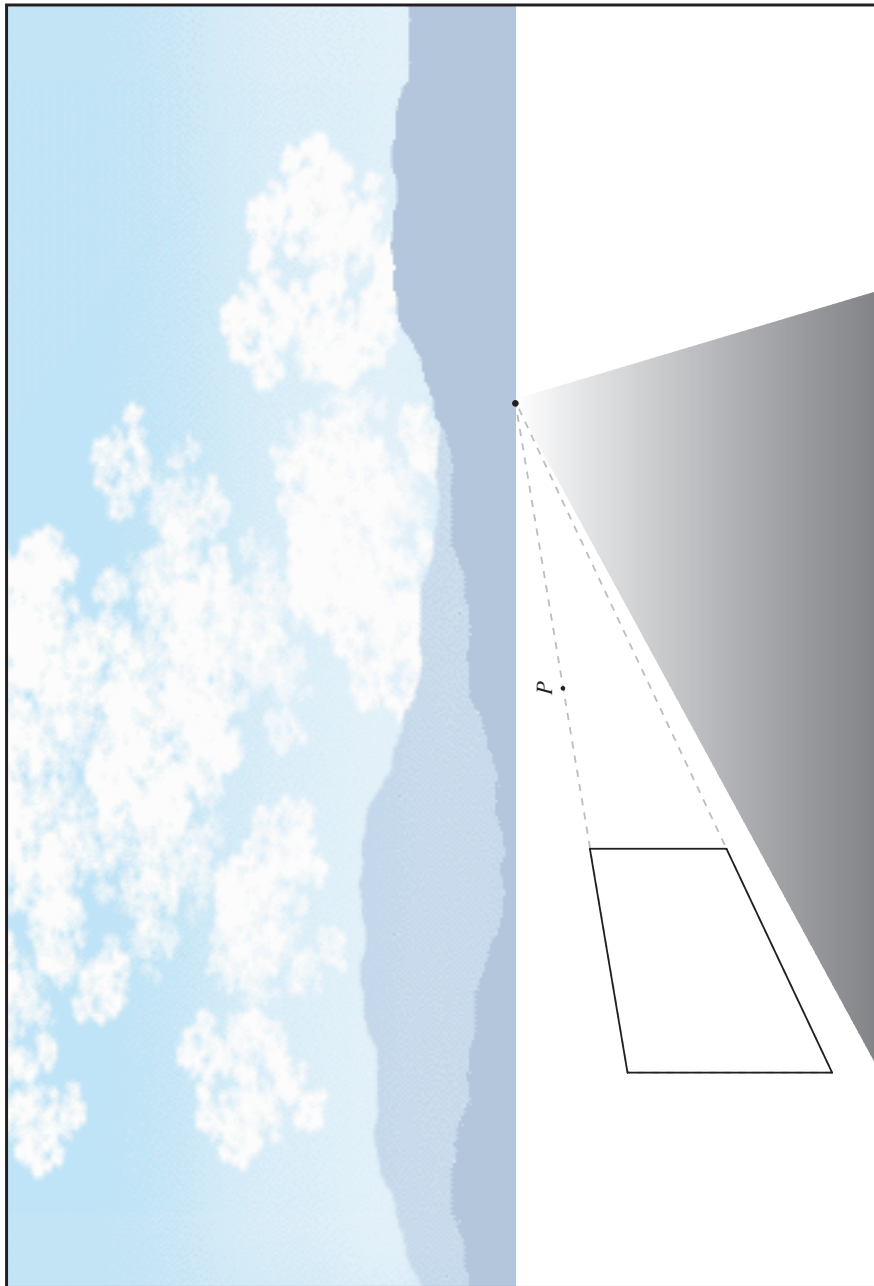
Draw 2 more fenceposts to divide the fence into 3 equal sections. (Think outside the box!)

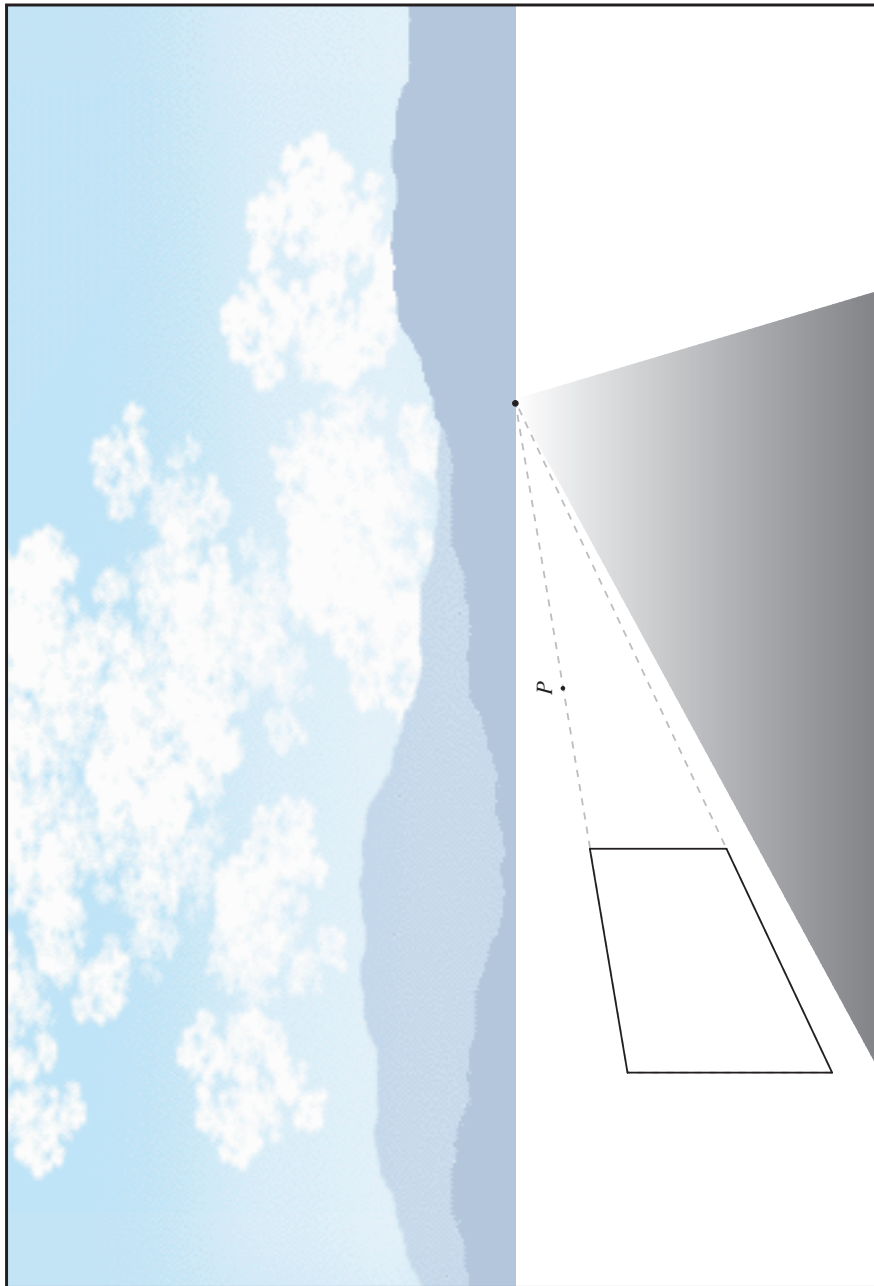












3. Below is a perspective grid with Jack-Jack (from *The Incredibles*) traced onto it. By noting where the tracing crosses the grid, mark the corresponding points on the rectangular grid on the next page, and connect them appropriately to obtain an anamorphic drawing. (If you want to then color it in, go right ahead.)

