

Create a painting or drawing that uses the perspective techniques we've developed (more on this in a bit!) It would be best if you could also provide something that shows the perspective in action – perhaps a preliminary sketch, or have a transparency (I can get one for you if you like) that you use as an overlay, on which you draw all the lines extending to their vanishing points. Finally, as always write a description of what you did, describing how you incorporated math into your work and what techniques you used. Think in terms of a description that would accompany your art in an art show – you'd want them to know how you incorporated math into the work, and what mathematical principles are illustrated. Also, title your work.

Getting back to your use of perspective ...

- Use perspective rigorously, don't just eyeball it. If you have to make adjustments, it won't be in perfect perspective, so plan in advance to avoid starting all over!
 - Plan the viewing distance in advance.
 - Plan the vanishing point(s) in advance.
 - Make a sketch, including having all your lines extending out to the vanishing points.
- Use at least one square which a viewer can use to calculate the viewing distance. That of course means the square has to be fairly obviously a square, and should be parallel to the "floor" or a side "wall", and have one set of edges that are parallel to the picture plane. (If you use more than one square, the implied viewing distance should be consistent.)
- Incorporate duplicated items (with or without space between them) receding into the distance—use our techniques for duplicating rectangles! Branch out – use this technique to duplicate circles or triangles. Also consider subdividing a rectangle or two or several!

In short, incorporate as many of the techniques we've developed as possible.

(Should your work be selected for the end-of-semester art show, thumb tacks or staples will be used to display it. If you don't want that, please mount it on some sort of matting through which we *can* put thumb tacks.)

Possible Points: A work that repeatedly uses a variety of perspective techniques and uses them rigorously, *and* which has a nice way of seeing the perspective in action as described above, *and* which contains at least one square, *and* whose accompanying description is clear and substantive, and includes an analysis of where the viewer should stand to view the painting can earn up to 55 points (even more if you go beyond what we've learned in class, or create an extremely detailed work). Of course, the fewer different techniques, or fewer repetitions of a technique, you use, the fewer points ... and of course, if some aspects are not in correct perspective, that will also earn fewer points.

Note: A work of art submitted with out a corresponding mathematical analysis will be returned ungraded.