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Annalisa Crannell* (annalisa.crannell@fandm.edu), Department of Mathematics, Box 3003, Franklin & Marshall College, Lancaster, PA 17604-3003. *Reflections on Spheres*.

We give an analysis of the reflections of lines in a mirrored sphere, paying particular attention to the number and location of their vanishing points. We use this analysis to describe how to draw the images of boxes reflected in a mirrored sphere, providing an analogy of what, in linear perspective, would be one-point perspective drawings. In addition, we provide an analysis of two methods for computing viewing distance between the artist and the sphere for existing drawings of spherical reflections. One method uses distances between vanishing points; the other is an estimate that requires knowing a single small measurement from the “real world”. (Received July 13, 2010)