

Lesson 4-6

Example 1

Draw a rectangular prism in one-point perspective.

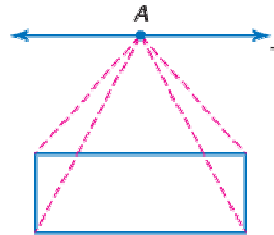
Solution

*Step 1* Draw a rectangle to show the front surface of the prism. Draw a horizon line  $j$  and a vanishing point  $A$  on line  $j$ .



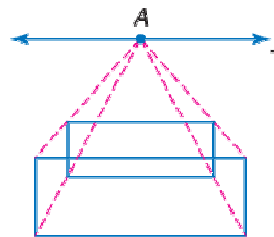
Step 1

*Step 2* Lightly draw line segments connecting the vertices of the rectangle to point  $A$ .



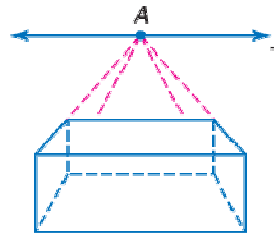
Step 2

*Step 3* Draw a smaller rectangle whose vertices touch the four line segments. Each side of the smaller rectangle is parallel to the corresponding side of the larger square.



Step 3

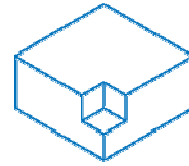
*Step 4* Connect the vertices of the two rectangles. Use dashed segments to indicate the edges of the rectangular prism that are hidden from view.



Step 4

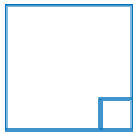
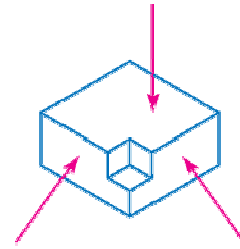
**Example 2**

Make an orthogonal drawing of the figure.



**Solution**

Imagine looking at the object from the top, front, and side. Draw the object from each view.



Top



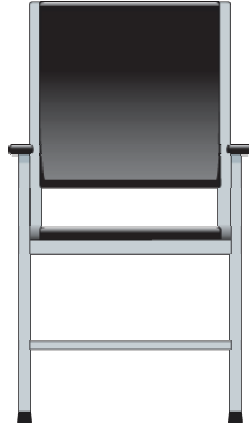
Front



Side

**Example 3**

**RETAIL** Pedro bought an office chair that requires assembly. The directions include this orthogonal drawing. How should the chair appear after he has completely assembled it?

**Solution**

Visualize how the chair will appear from each view in the orthogonal drawing.

