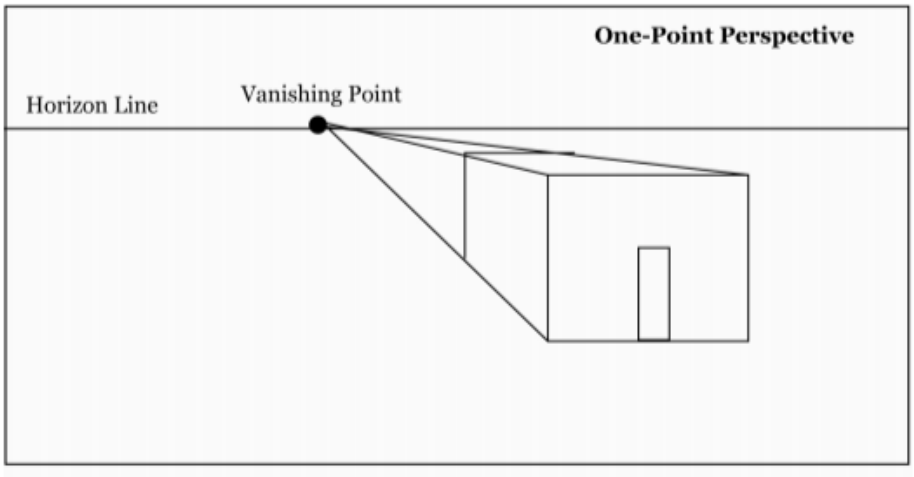
LINEAR PERSPECTIVE

LSRCSS · Drawing 20S

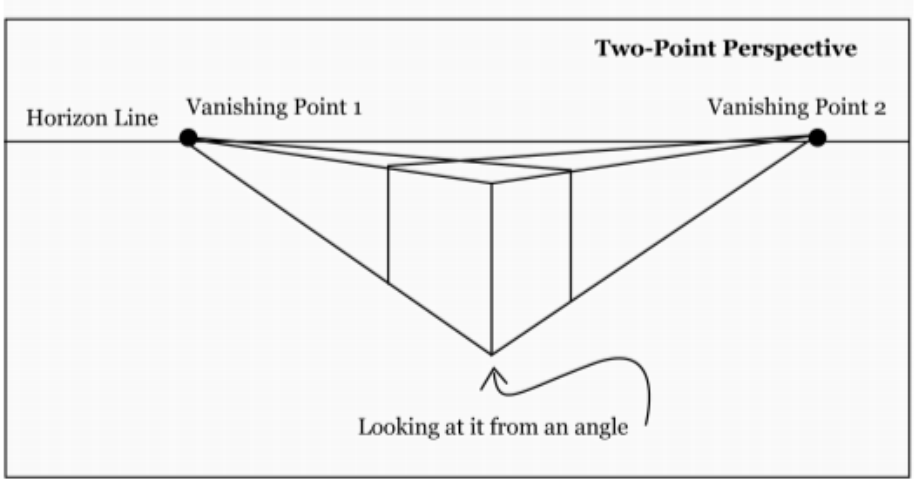
Linear Perspective

Linear Perspective is a technique for representing 3-dimensional space on a 2-dimensional (paper) surface. This method was invented during the Renaissance when artists were trying to draw as realistically as possible. It is a mathematical system to show depth realistically. Linear perspective is based on the way the human eye sees the world. Things that are closer to us appear larger and things that are farther away appear smaller. To create this illusion the artist creates a vanishing point on the horizon line. Objects are drawn using orthogonal lines, which lead to the vanishing point(s).

Things that are seen face on, which means you are looking at the front of them directly, are drawn in **one-point perspective** with a single vanishing point.



Things that are seen at an angle, which means you aren't looking at the front of something but at the angle or corner, are drawn in **two-point perspective** using two vanishing points.



Linear Perspective Vocabulary

Perspective: Perspective is a way of showing where the observer is. The objects themselves don't have perspective, you the observer, do.

One-Point Perspective: One-point perspective occurs when rectangular forms are placed so that their sides are either parallel to the picture plane or perpendicular to it. There is one central vanishing point in one-point perspective.

Two-Point Perspective: Two-point perspective is necessary when rectangular objects are positioned so that their faces are at an angle to the artist's line of sight. There are two vanishing points for an object in two-point perspective. If there are two cubes at different angles to the viewer each cube will have it's own vanishing points.

Horizon Line: The horizon line is the same as the real horizon (where the earth meets the sky). The horizon line is also considered to be at the artist's eye level. Sometimes the horizon line cannot be seen because of obstructions.

Vanishing Point(s): In perspective, the lines of an object extend to and meet at the vanishing point, which is on the horizon line.

Orthogonal Lines: The term used to describe lines (often diagonal) which appear to converge in the system of linear perspective.

Horizontal Lines: Straight lines parallel to the horizon.

Vertical Lines: Lines that are drawn at right angles to the horizon, running straight up and down.

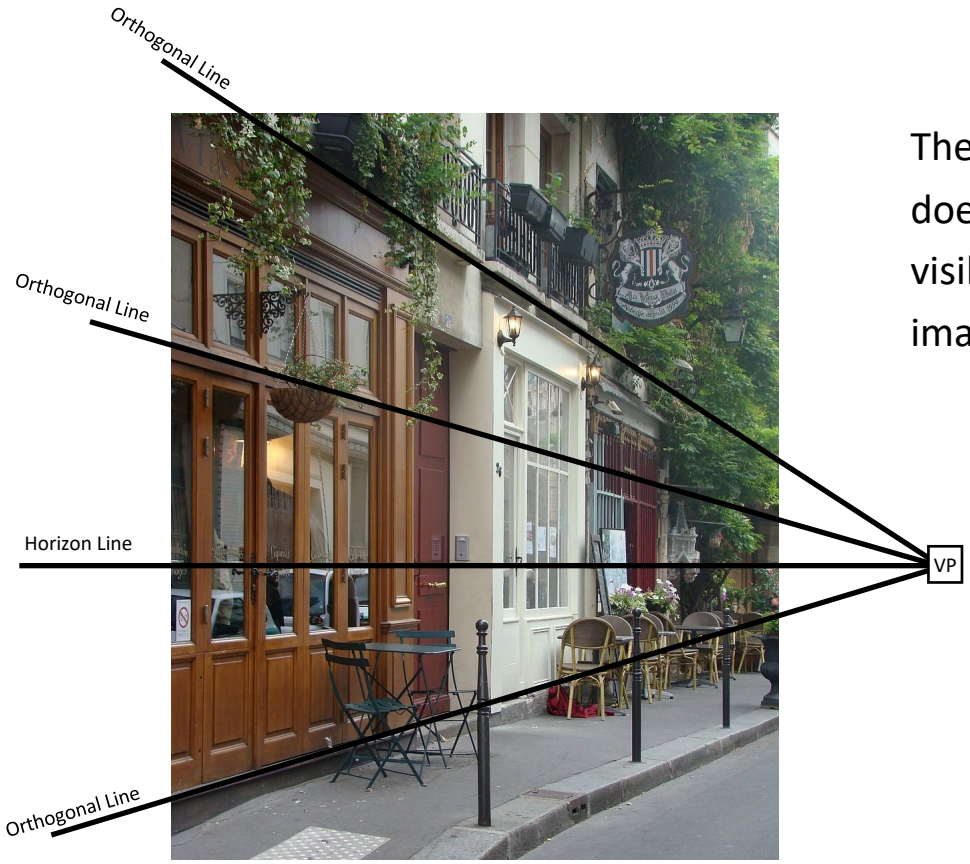
One-Point Perspective: Real World Examples

With a pencil and a ruler or other straight edge draw the Horizon Line, Vanishing Point (VP), and some major Orthogonal Lines in these one-point perspective photographs. Label the elements.

Example

One-Point Perspective: Real World Examples Continued

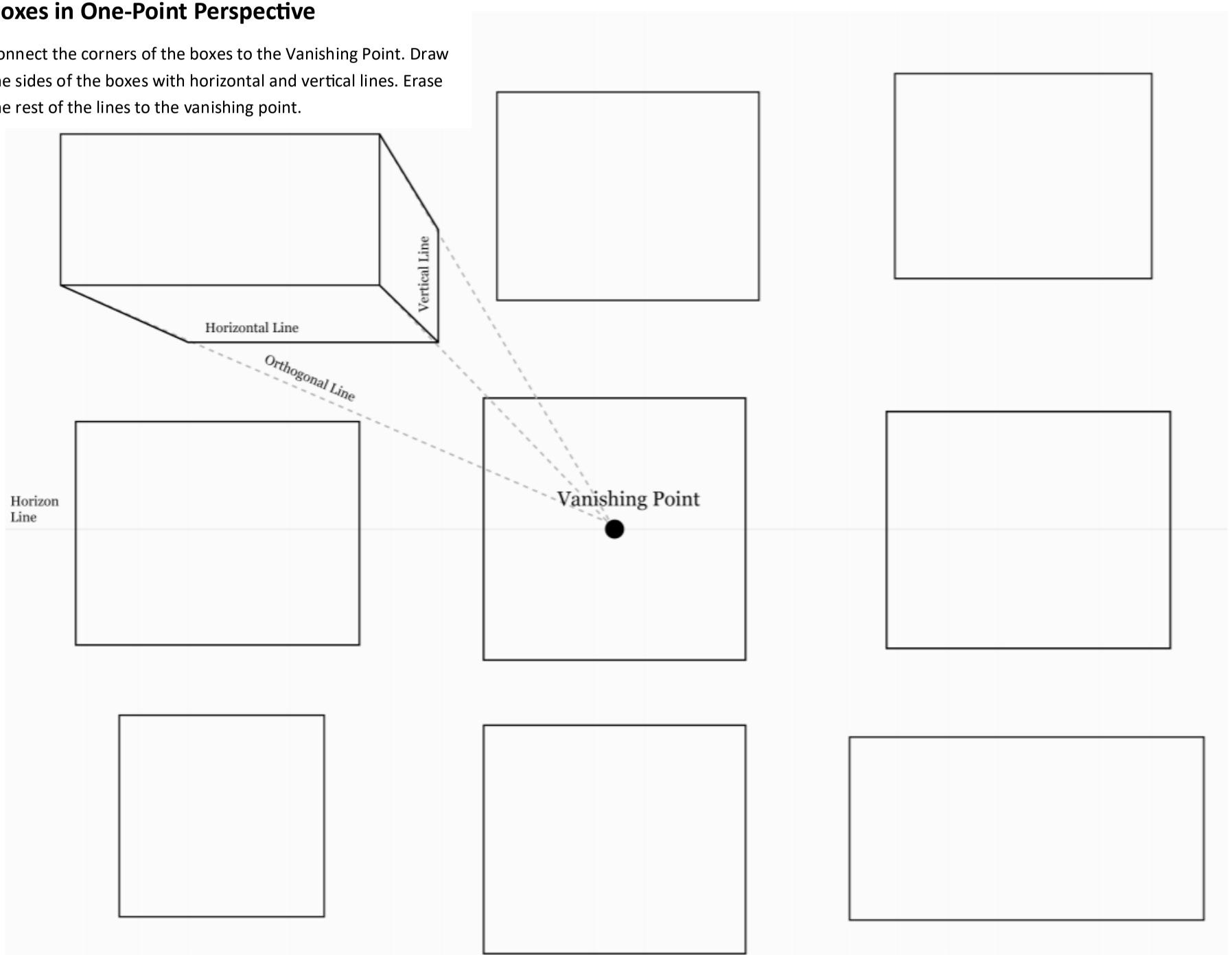
One-Point Perspective: Real World Examples Continued



The vanishing point doesn't have to be visible within the image.

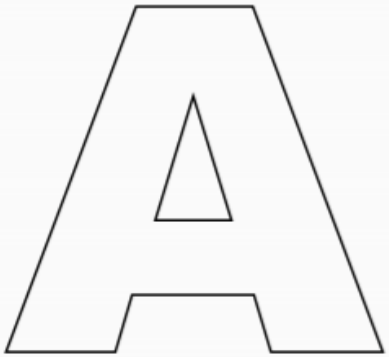
Boxes in One-Point Perspective

Connect the corners of the boxes to the Vanishing Point. Draw the sides of the boxes with horizontal and vertical lines. Erase the rest of the lines to the vanishing point.

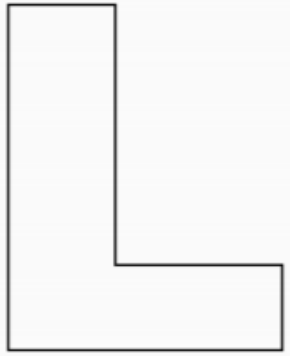


Letters in One-Point Perspective

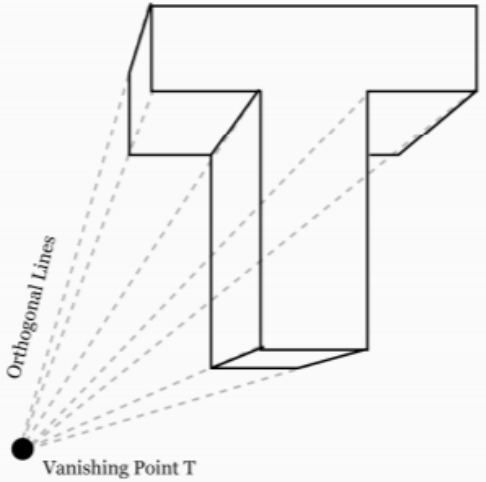
Connect the corners of the letters to the vanishing point by each letter. Draw the sides of the letters with horizontal and vertical lines. Erase the rest of the lines to the vanishing point.



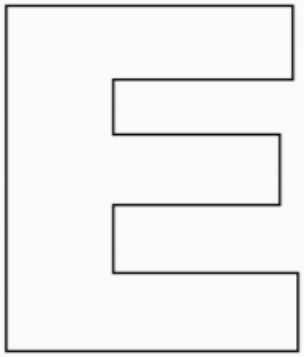
Vanishing Point A



Vanishing Point L



Vanishing Point W

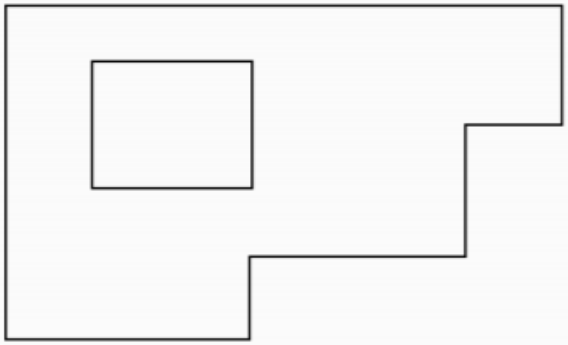


Vanishing Point E

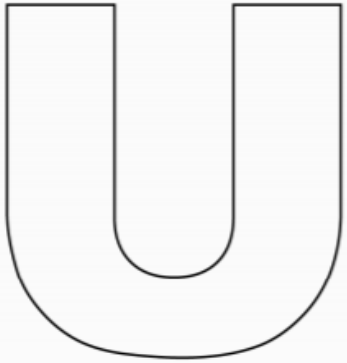
Shapes in One-Point Perspective

Connect the corners of the shapes to the vanishing point labeled for each shape. Draw the sides of the shapes with horizontal and vertical lines. Erase the rest of the lines to the vanishing point.

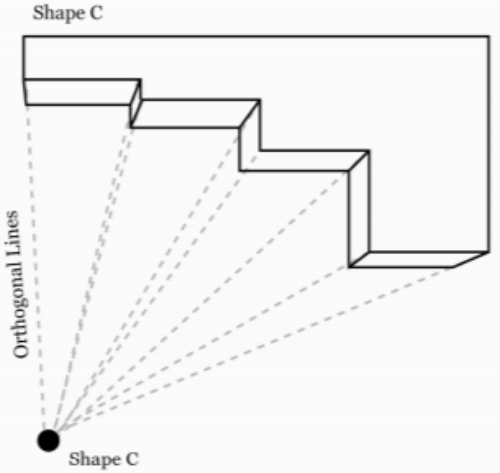
Shape A



Shape B

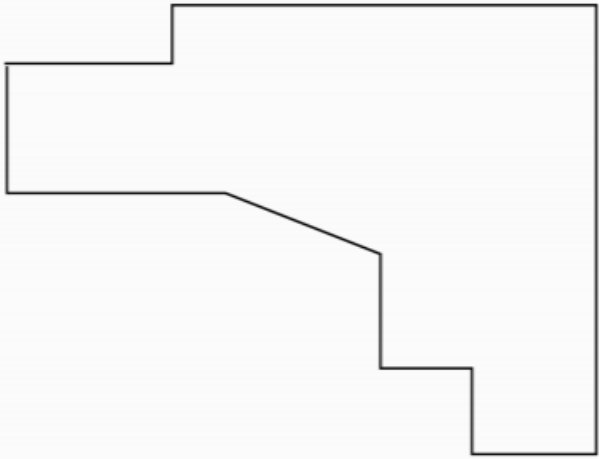


Shape C



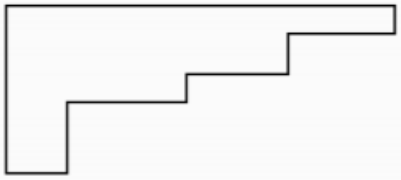
Vanishing Point Shape B

Shape E



Vanishing Point Shape A

Shape D

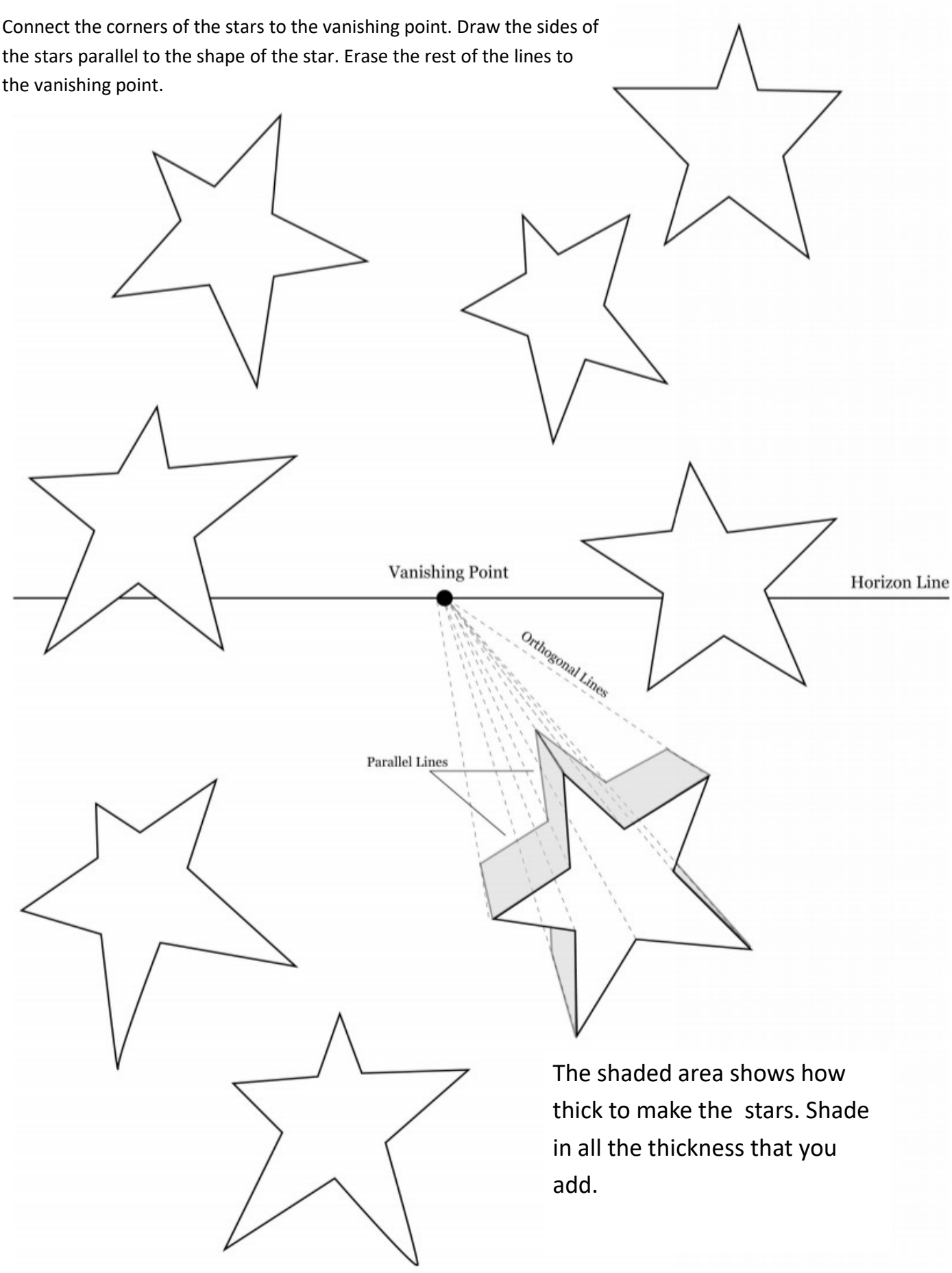


Vanishing Point Shape E

Vanishing Point Shape D

Stars in One-Point Perspective

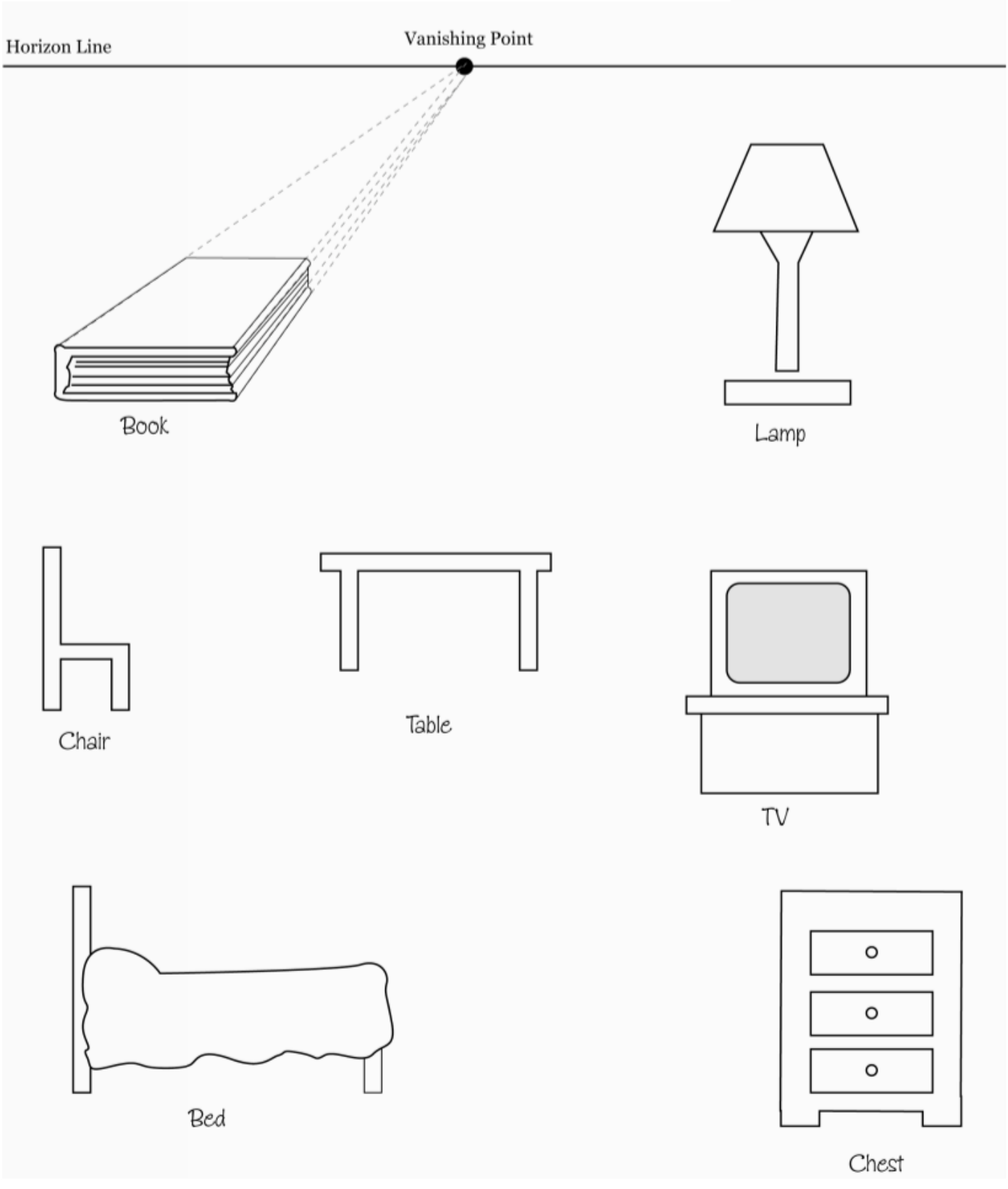
Connect the corners of the stars to the vanishing point. Draw the sides of the stars parallel to the shape of the star. Erase the rest of the lines to the vanishing point.



The shaded area shows how thick to make the stars. Shade in all the thickness that you add.

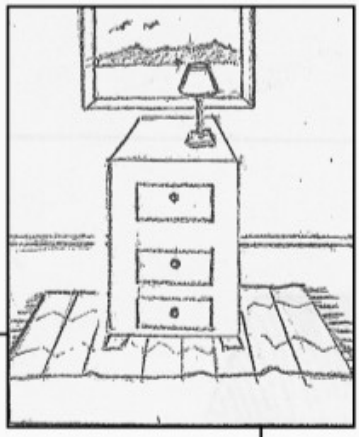
Real World Objects in One-Point Perspective

Connect the corners of the simplified real world objects to the vanishing point. Draw the sides of the shapes with parallel lines. Erase the rest of the lines to the vanishing point.



Draw Part of a Room

Redraw the picture from the small box in the large box using correct one-point perspective.

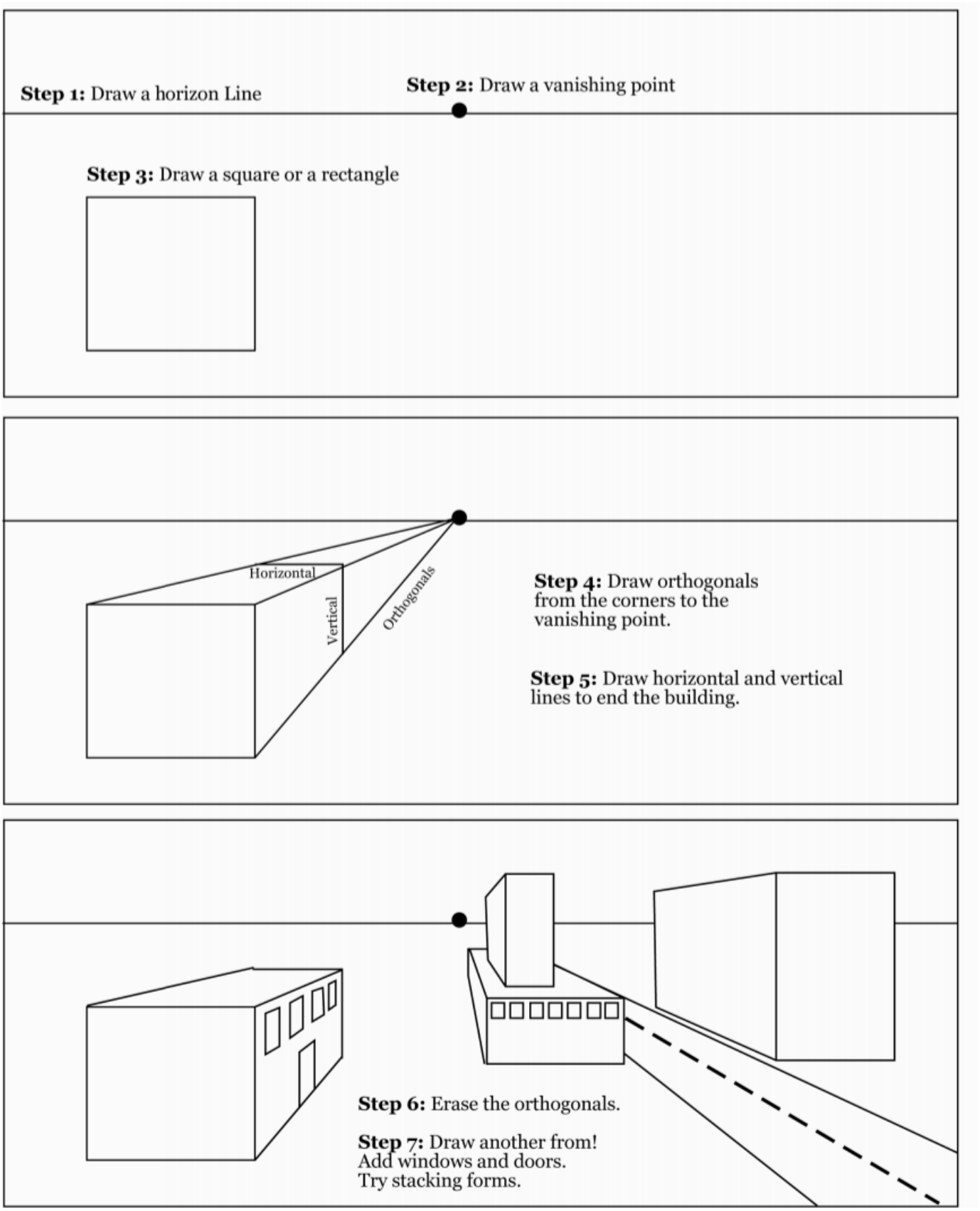


Enlarge this picture in the space provided

Vanishing Point

Draw a City in One-Point Perspective

Look at the steps for creating a city in one-point perspective below. On the next page you will create your own city. Try large, small, fat, and skinny buildings. Try adding details like windows, roads, benches, lights, etc. Be creative!



Draw Your One-Point Perspective City Here

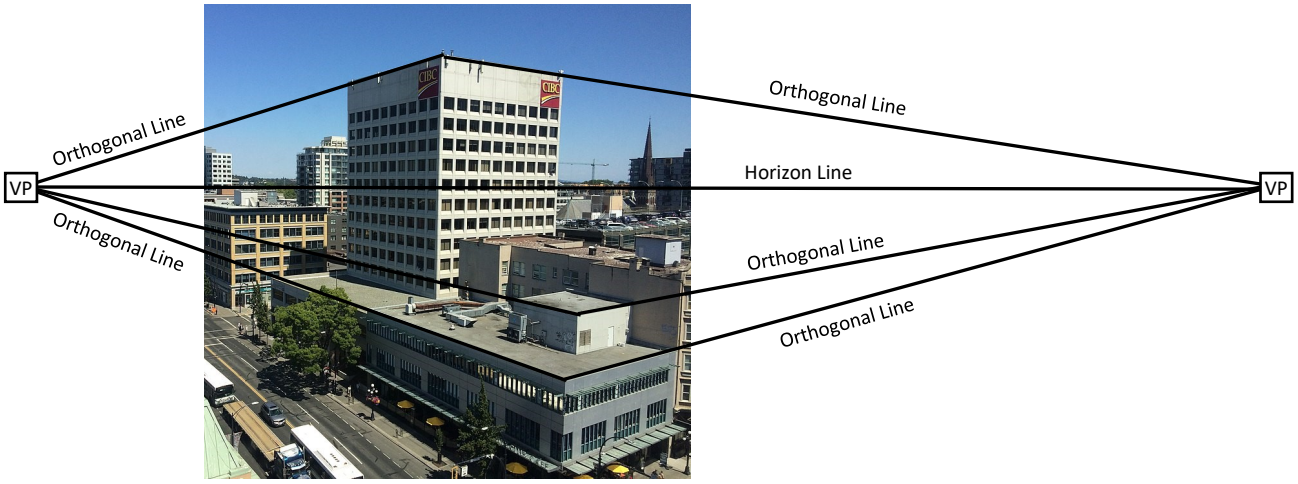
Remember the steps:

Step 1: Draw a horizon line. Step 2: Draw a vanishing point. Step 3: Draw a square or rectangle. Step 4: Draw orthogonals from the corners to the vanishing point. Step 5: Draw horizontal and vertical lines to end the building. Step 6: Erase the orthogonals you don't need for the building. Step 7: Draw more buildings. Add windows, roads, doors, benches, lights, trees, cars, etc. Be Creative!

Two-Point Perspective: Real World Examples

With a pencil and a ruler or other straight edge draw the Horizon Line, Vanishing Points (VP), and some major Orthogonal Lines in these two-point perspective photographs. Label the elements.

Example



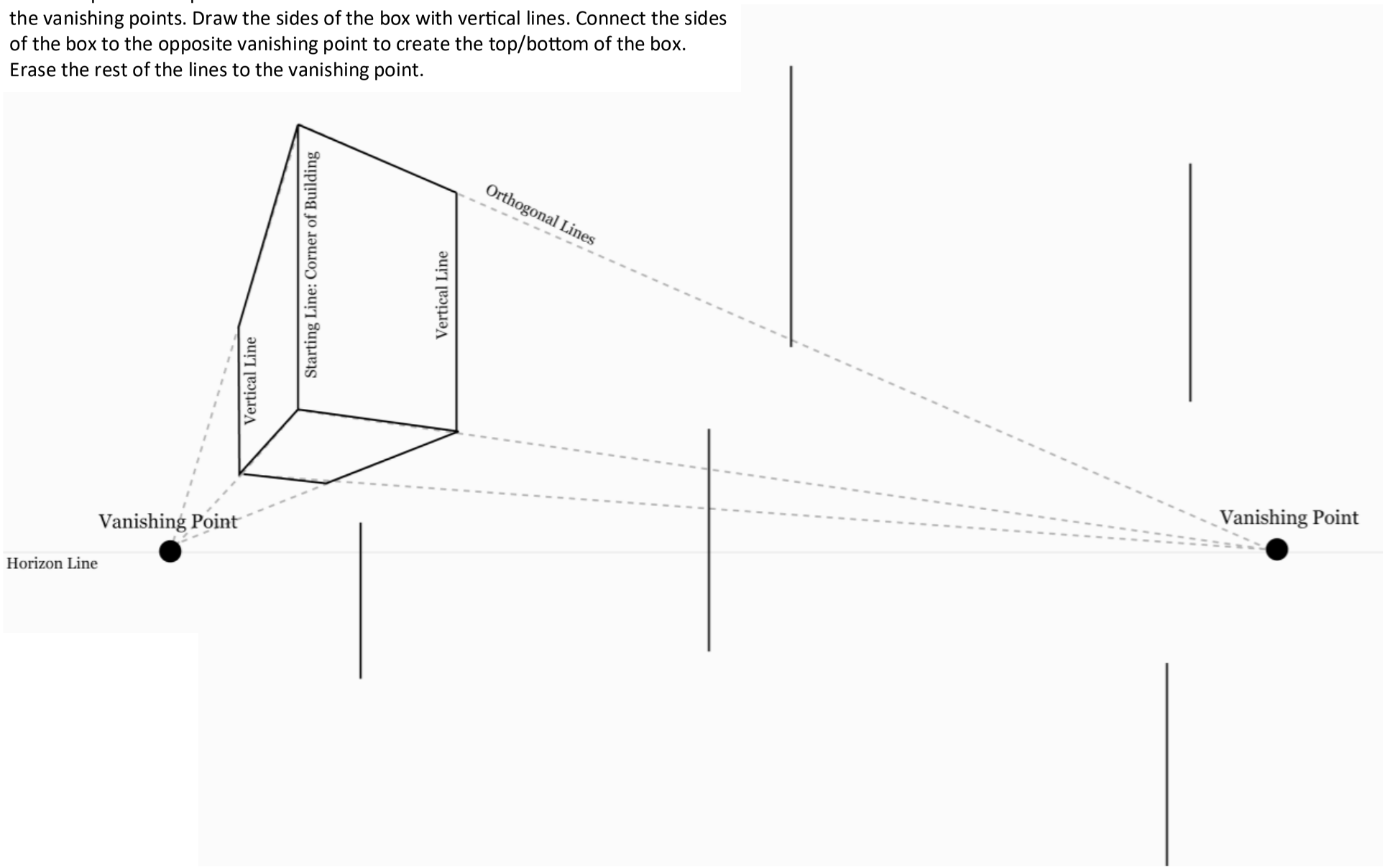
In two point perspective it is common for the vanishing points to appear outside the picture space.

Two-Point Perspective: Real World Examples Continued

With a pencil and a ruler or other straight edge draw the Horizon Line, Vanishing Points (VP), and some major Orthogonal Lines in these two-point perspective photographs. Label the elements.

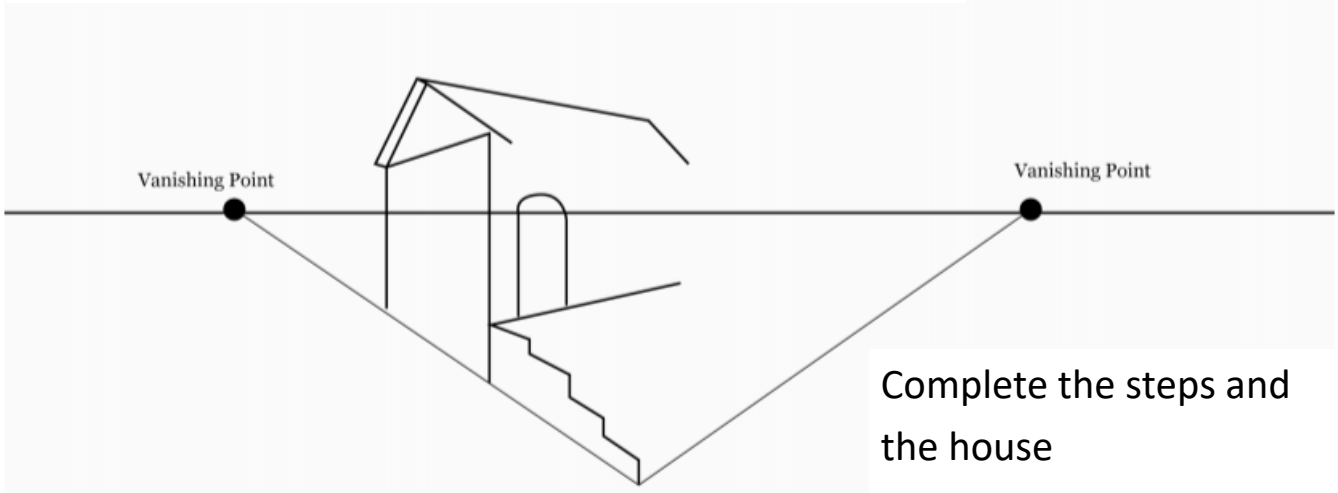
Boxes in Two-Point Perspective

The lines provided represent the corners of boxes. Connect the end of each line to the vanishing points. Draw the sides of the box with vertical lines. Connect the sides of the box to the opposite vanishing point to create the top/bottom of the box. Erase the rest of the lines to the vanishing point.

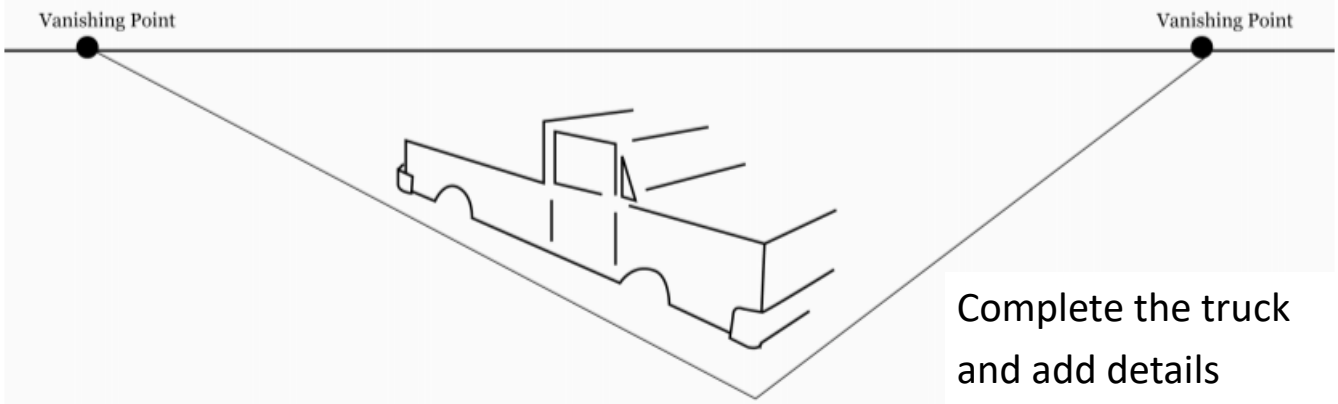


Building, Truck and Fence

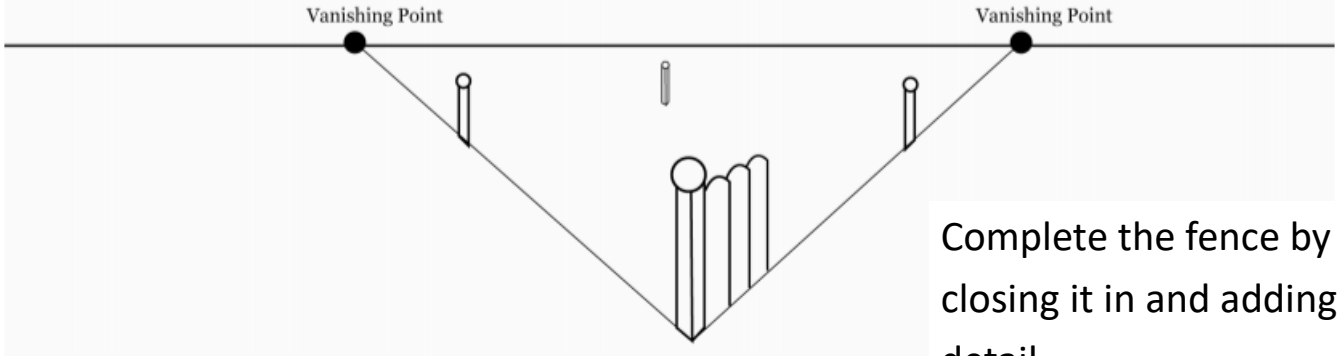
Finish drawing each object using two-point perspective.



Complete the steps and the house



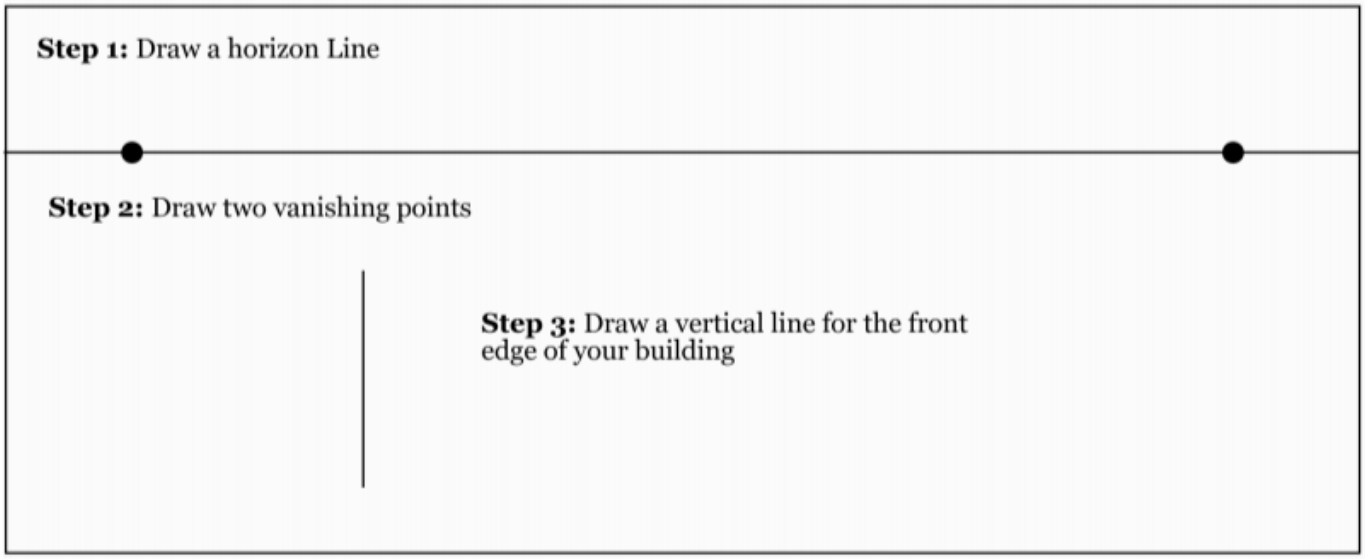
Complete the truck and add details

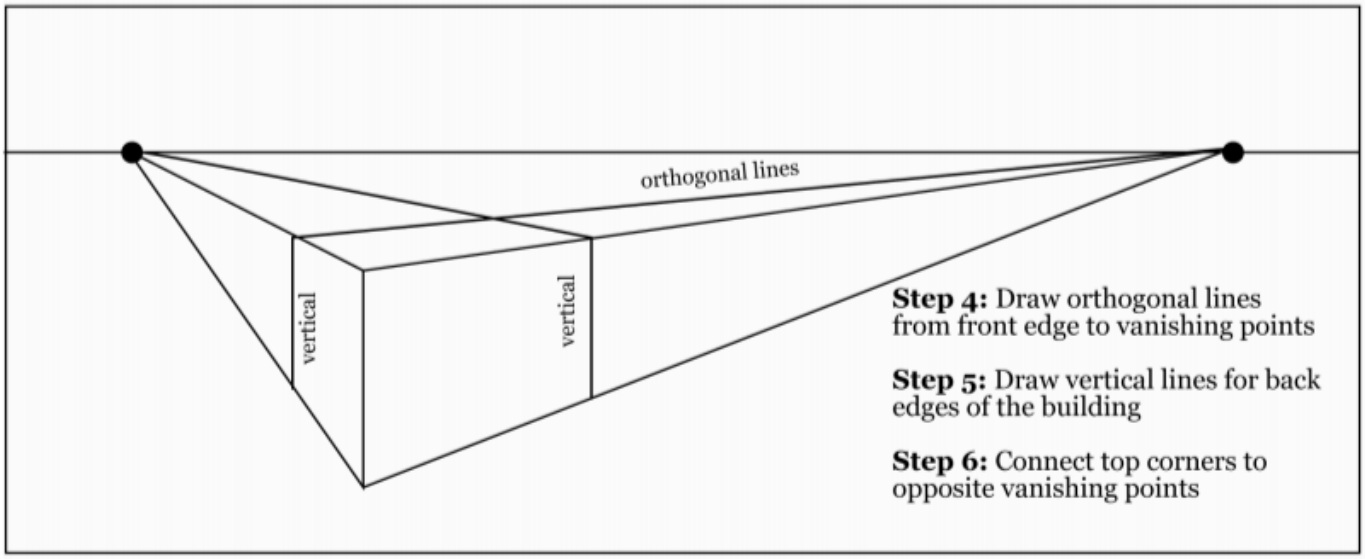


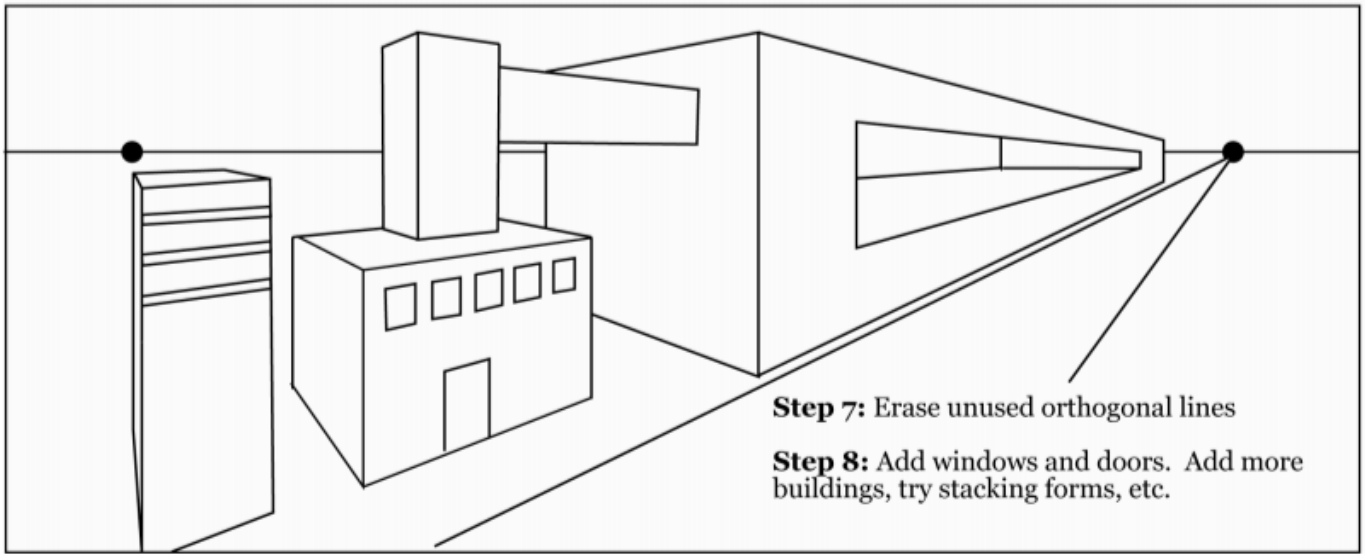
Complete the fence by closing it in and adding detail.

Draw a City in Two-Point Perspective

Look at the steps for creating a city in two-point perspective below. On the next page you will create your own invented city.







For a video tutorial on how to do this watch "How to Draw a City Using Two-Point Perspective" on YouTube

Draw Your Two-Point Perspective City Here

In the space below draw an invented fantasy city that contains a variety of buildings. Start by drawing a horizon line. Next, draw two vanishing points out towards the edges of the page. Add roads and buildings using two point perspective. Eventually add details like windows and lights or even vehicles and people. Be creative!