

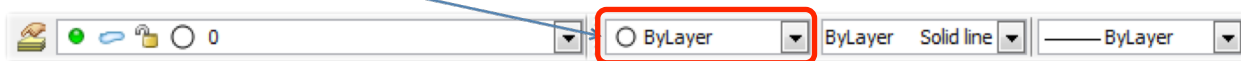
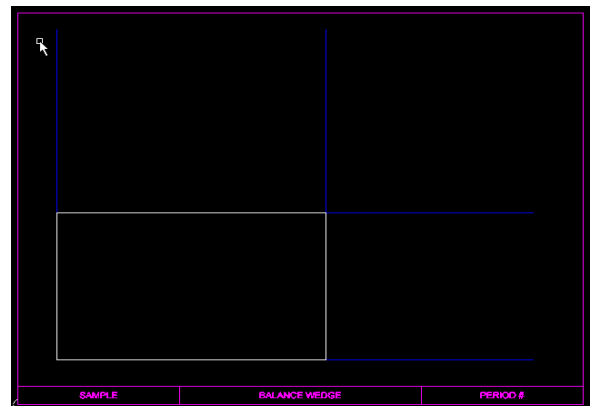
Orthographic Projection

For the correct size and look of the block, see the example page. Make sure to include the dimensions on your drawing.

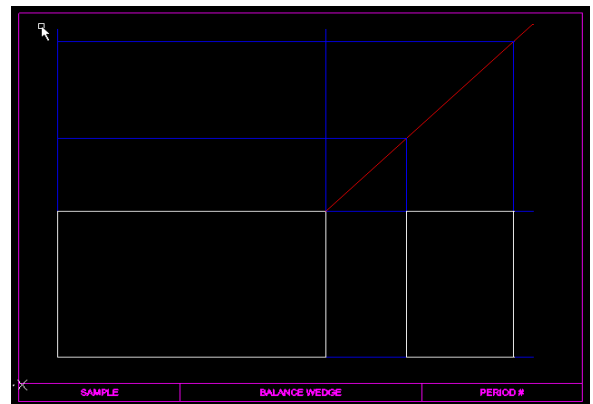
Procedure:

1. To start the Orthographic Projection, **Open** the Template file and **Save As** a new file called *Orthographic Projection* in your student folder. (See CAD Tutorial if you forgot how)
2. An orthographic projection is a 2D representation of an object. We draw three views of the object to show proper size and proportion. The **Front**, **Side**, and **Top** view. We will be drawing the Balance Wedge (see sample image). The easiest way to do this is to imagine that each piece is a rectangle. Use the sample provided to know the sizes of each view.

Front: start the front view by drawing a rectangle that is 5" x 3". The front view is placed in the bottom left corner of the drawing. Now we need to add construction lines. From each corner of the rectangle draw horizontal and vertical lines that project out above and to the right of the rectangle. (Remember that these lines are called construction lines and should be thin and light. Use a **Blue** line for construction line. You can change the color of your lines by changing the box from By Layer → Blue)



Side: the side view is drawn to the right of the front view. Using the construction lines we created, draw a rectangle that is 2" x 3". Next we need to create a *Bisecting* line. This line will allow us to project our side view up to our top view. Do this by starting a line in the top, right corner of the front view and move upwards at a 45 degree angle. (I made mine red so that it is a lighter line.) Once we have the bisecting line we can project our side view up and over to the top view.

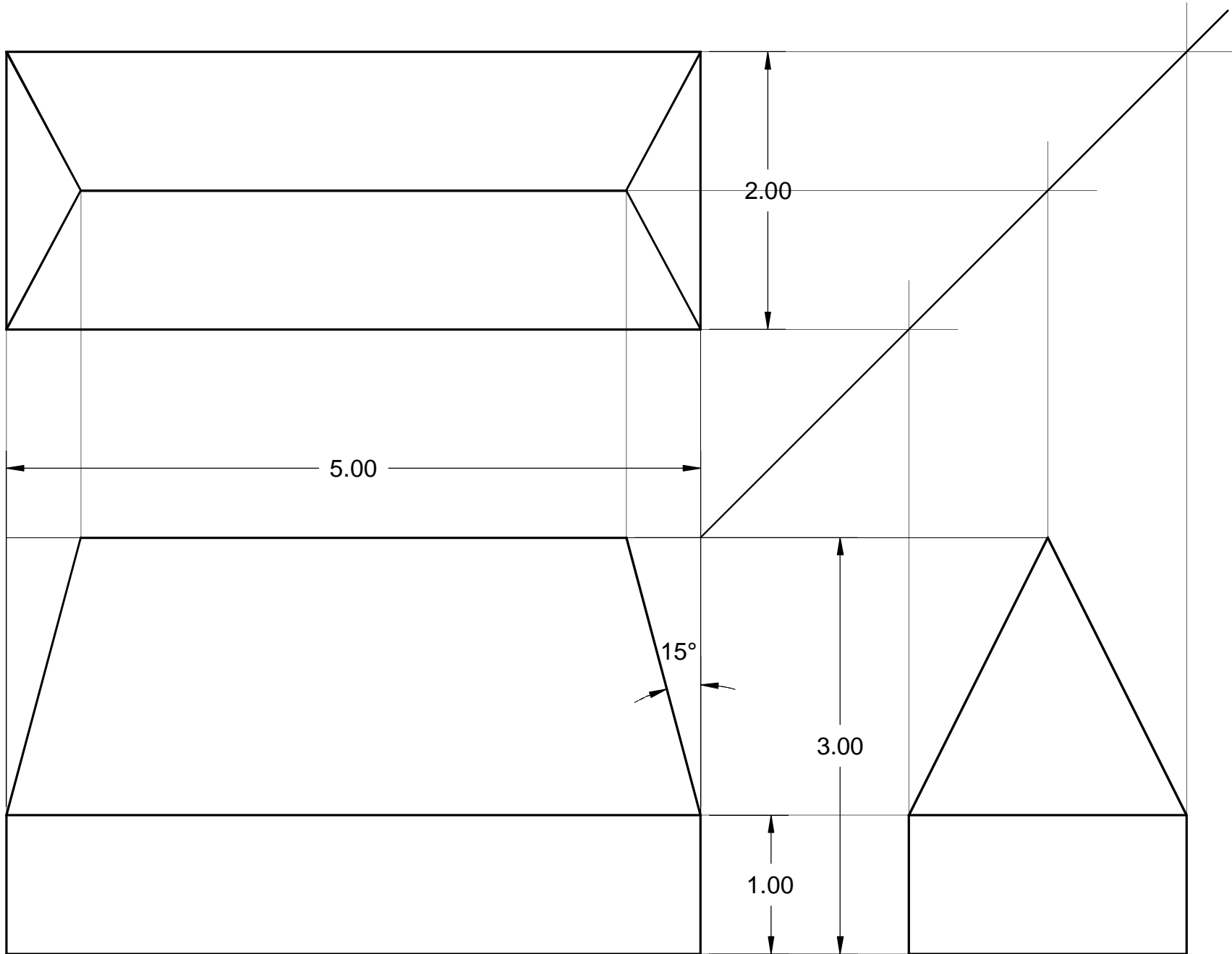


REMEMBER TO SAVE  Save

Top: the top view is now very easy to create. Trace the rectangle that your construction lines made for you.

3. Using the methods from above we can now create the rest of our block. Start by adding the angled lines and the crossing line to your front view. Project any corners or edges to both the top and side view using construction lines. Trim out any of the object lines that you no longer need. And finally make sure that you have the dimensions shown on the sample. **Make sure that you do not erase any of your construction lines or the bisecting lines!** When you are finished follow the Print Tutorial and turn it in.

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SAMPLE

BALANCE WEDGE

PERIOD #