Lesson 1

Inventor 3-D Parametric Modeling

Extruding

Objectives

In this assignment you will complete 1 drawing. An Angle Pivot Block. It should take on class period to do. You will first make the .ipt drawing and then finish with an Engineering Drawing. If the student is unclear how to proceed, it is recommended that the student refers back to initial Inventor curriculum and review the steps to making an .ipt drawing.

Terminology

Engineering drawing (.idw): A multi-view drawing. The views should be dimensioned and an isometric drawing of the object should be in the upper right hand corner. It includes a detailed title block.
.ipt drawing: a parametric drawing that can be converted into an .idw or an .stl drawing.

.stl drawing: a type of file that can be converted into a Makerbot file for 3D printing

Google Classroom(GC): An account in which the student will refer to when turning in assignments.
Print screen: Making a copy of the computer screen. This copies the screen temporarily so that it can be pasted in another document and edited such as Google Docs, or Google Slides.

Getting Started

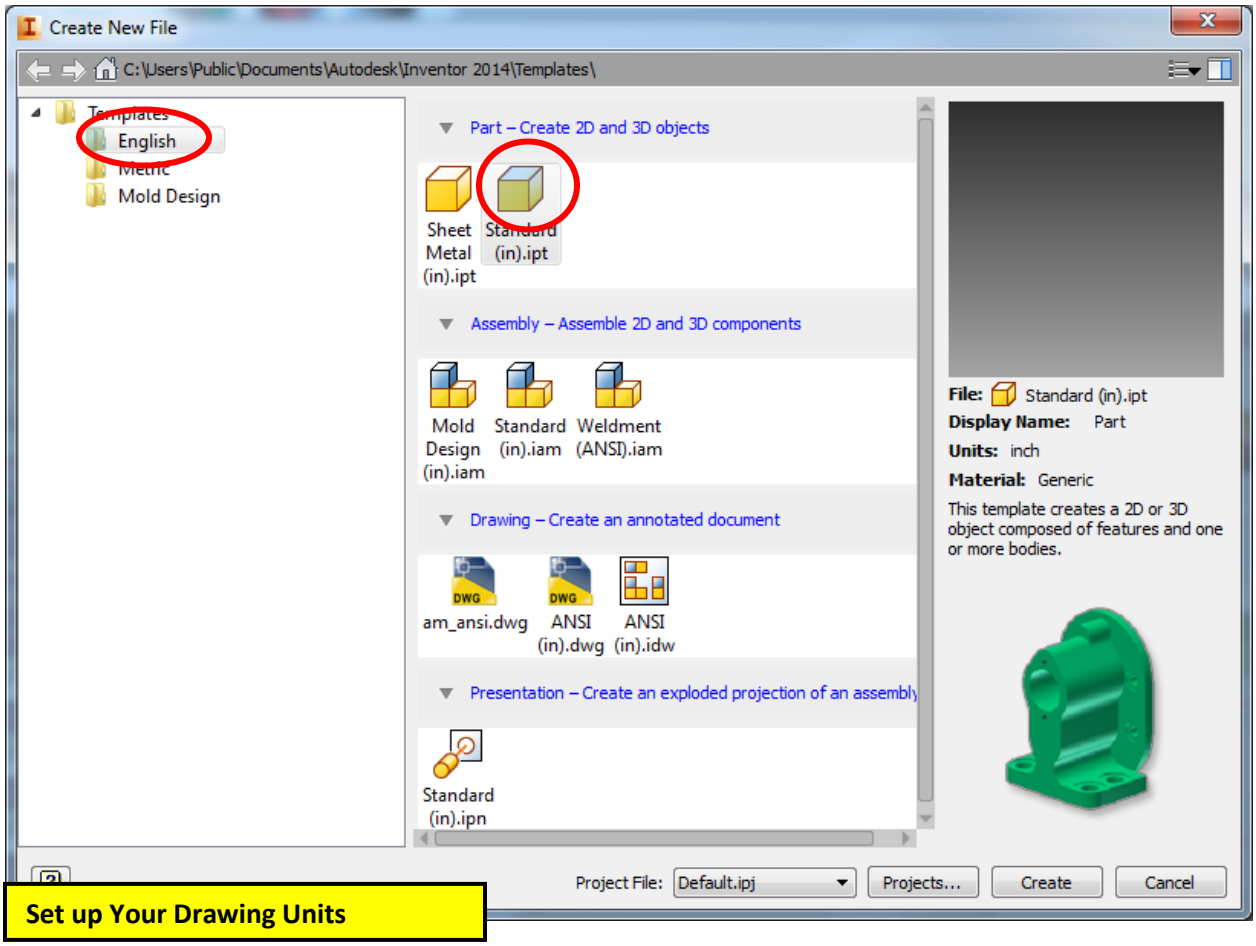
1. Select the Windows icon at the bottom left of the screen:
2. Select “All Programs”
3. Select “Autodesk”
4. Select “Inventor 2017 – English”
5. Select “Inventor 2017” – English” Note: This is a big program and it takes time to load.
6. Draw an .ipt of the Angle Pivot Block, Make an Engineering drawing identical to the one aside from the Title block which should include your information.

Save Your Work

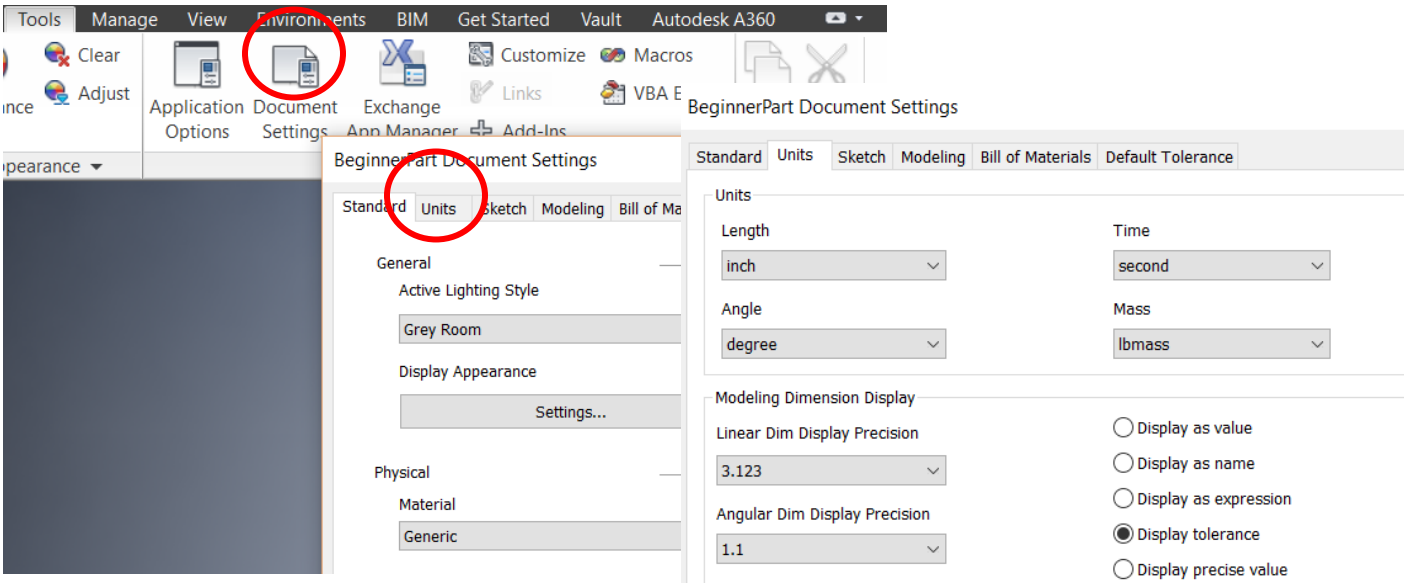
Before you begin the drawing:

1. Create a File and name it Assembly Drawing of Angle Pivot Block.
2. Save the new .ipt as Your Last Name, First name, Angle Pivot Block.

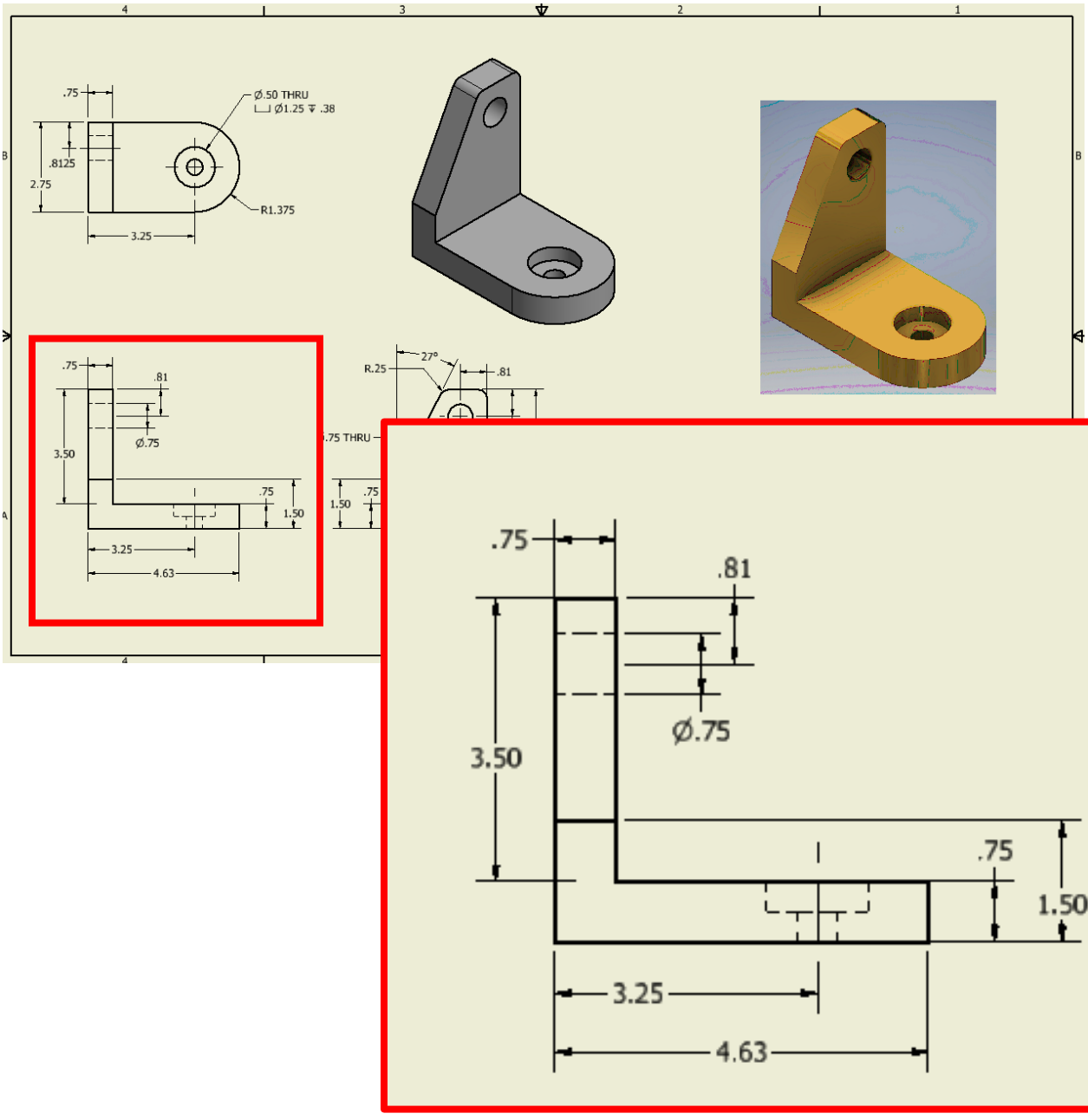
Start a New .ipt Drawing

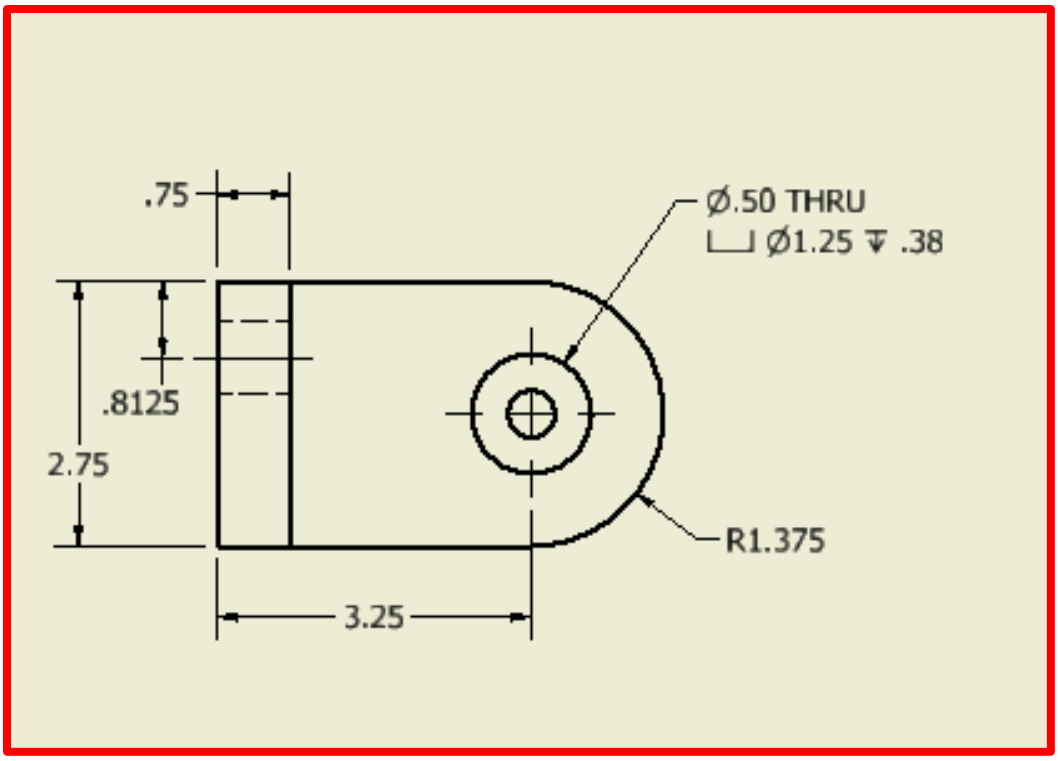


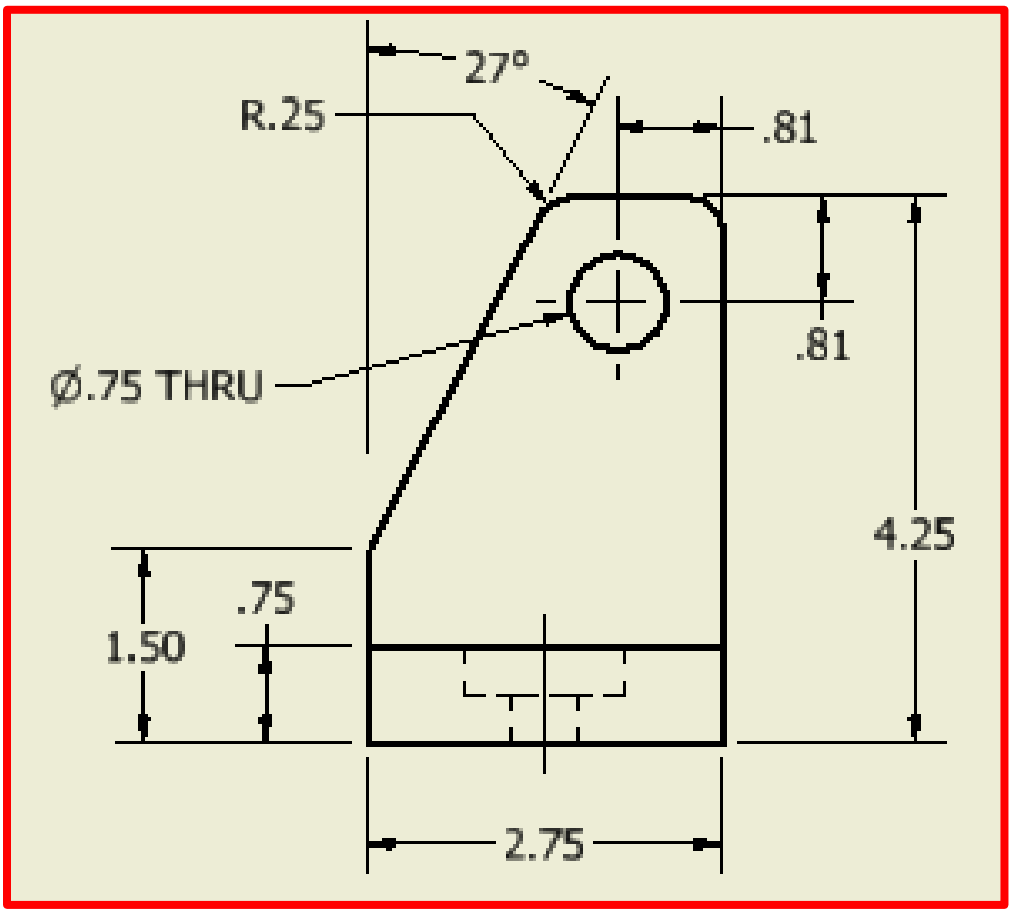
Set up Your Drawing Units



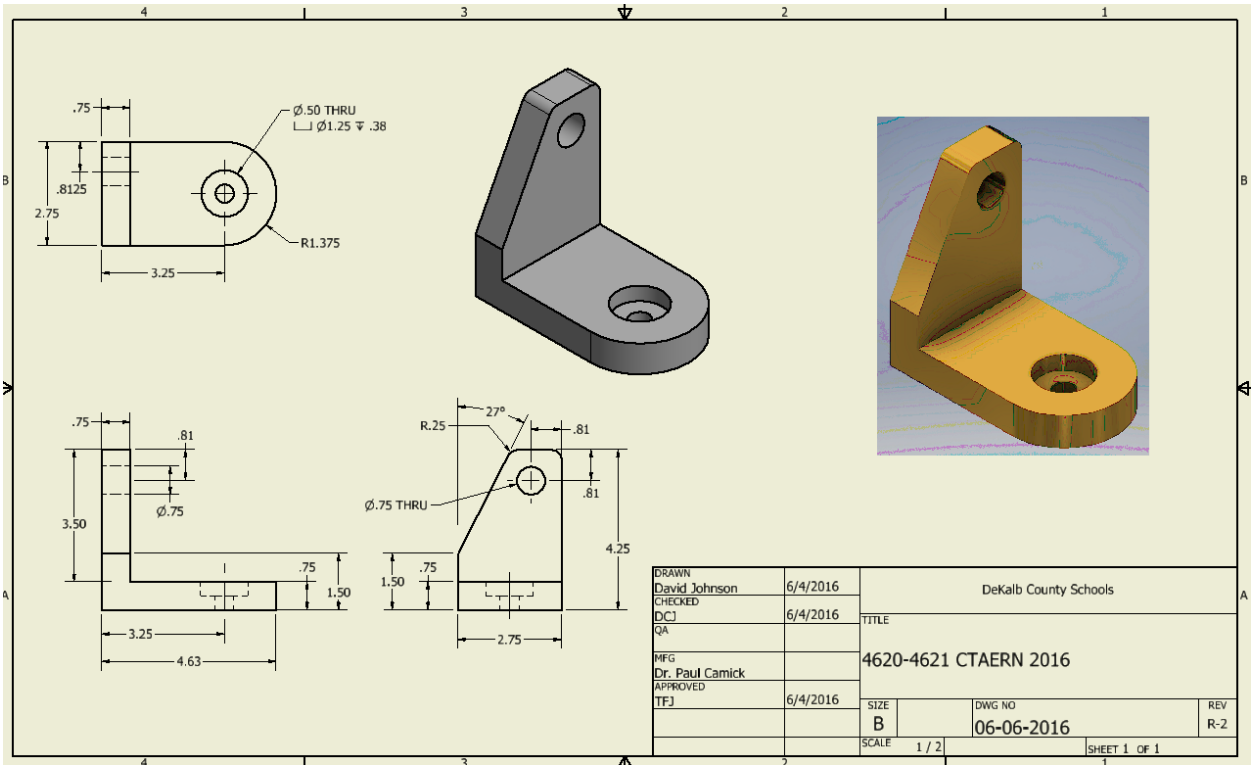
Begin Drawing your .ipt



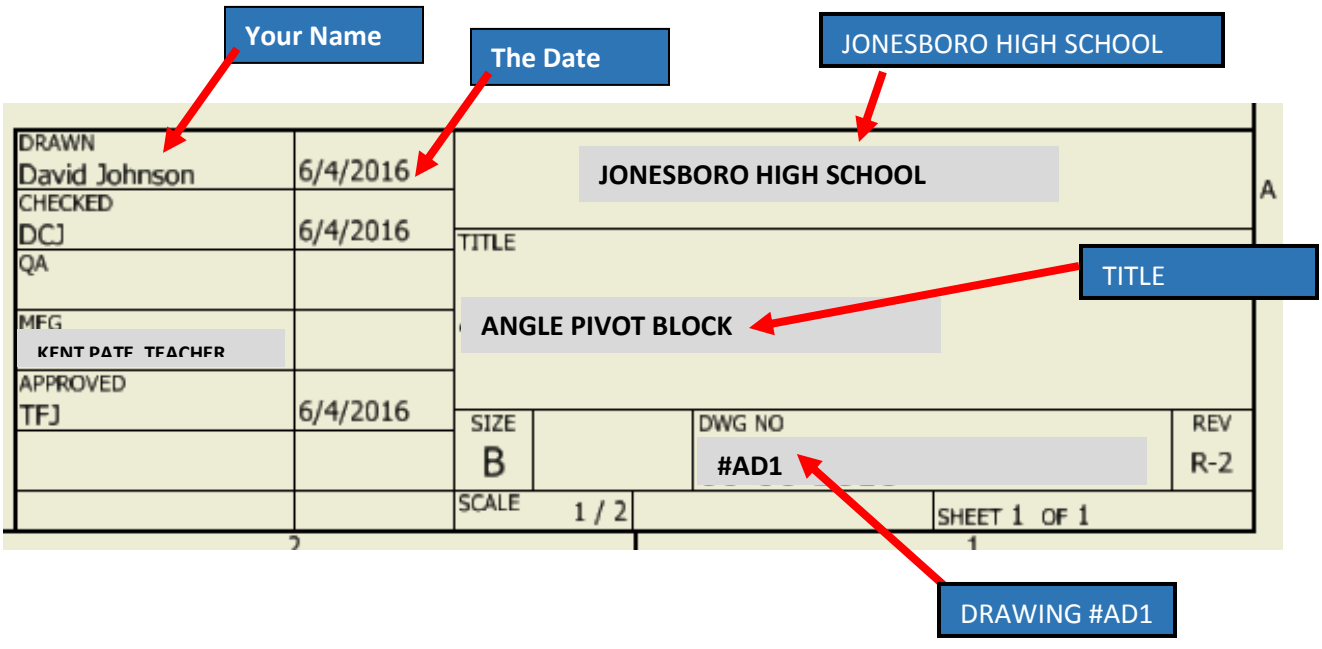

.75
Ø.50 THRU
⌴ Ø1.25 ↧ .38
.8125
2.75
R1.375
3.25


27°
R.25
.81
.81
Ø.75 THRU
4.25
.75
1.50
2.75

Create a new .idw drawing and lay it out exactly as below.



Fill out the Title Block as follows



Save Your Work

Save your work.

Submit Your Work for a Grade

Take a Print Screen of your drawing. Paste it into a Google Doc and submit it for a grade.

Terms to Know

Instructions: Copy the following terms into your notebook and define them.
.ipt drawing
Print Screen
.idw drawing
Projected view
Isometric drawing
Parametric drawing