






(50 pts) Approx. 3 days

The final part of our unit is to look at two newer parts of Autodesk: *assemblies* and *diagrams*. Autodesk can take multiple parts (like your puzzle cube pieces) and assemble them into onto one large object. It can also take different Autodesk files and create nice precise diagrams of them, including dimensions. In this part of the unit, you'll be asked to learn how those two tools work and use them to finish investigating your puzzle cube.

1. **Assembly Notes** – You should start by watching the *Assemblies in Autodesk* and the *Puzzle Cube Assemblies* presentations. Take a full page of notes on how Autodesk assemblies work, making particular note of the “Flush” and “Mate” constraint tools.
2. **Puzzle Cube Assembly** – Now, following the notes and suggestions from the video, assemble your puzzle cube pieces into a complete puzzle cube. When you're done, the proper faces should be mated so that the final object looks like a nice completed cube!
3. **Diagram Notes** – Now, watch the presentations *Drawings of Assemblies* and *Drawings in Autodesk*. These will give a nice overview of how to create diagrams/drawings in Autodesk. It's actually a super-fast procedure. Take a full page of notes, and make sure those notes include details about how to place a “Base View” and how to add “Annotations” or dimensions to your drawing!
4. **Puzzle Cube Drawings** – Complete two Autodesk drawings. The first should be of your most complex puzzle cube piece, and the second should be of your completed puzzle cube assembly. Be sure and include at least 3 multiview perspectives and 1 isometric perspective in each drawing. Also be sure to add dimensions!

Part 3: Tasks	10 points	8-6 points	5-0 points
 Notes on Autodesk Assemblies	+ You took a full page of notes on how to create assemblies in Autodesk + Your notes include details about how to use the “Flush” and “Mate” constraints	- Your notes are not a full page - Your notes do not include details on the constraints	- Your notes are missing
 Assemble Your Puzzle Cube!	+ You assembled all your puzzle cube pieces into a complete assembly + Your assembly makes a proper cube	- Your assembly is incomplete - Not all the pieces fit together properly	- You did not assemble your puzzle
 Notes on Autodesk Diagrams	+ You took a full page of notes on how to make diagrams in Autodesk + Your notes include details about how to place the “Base View” as well as “Annotate”	- Your notes are not a full page - Your notes do not include details about specific tools	- Your notes are missing
 Diagram a Puzzle Cube Piece	+ You made an Autodesk Diagram of your most interesting puzzle cube piece + Your diagram includes 3 multiview perspectives and 1 isometric	- Your diagram is of a very simple piece - Your diagram does not include all views - Your diagram is not fully dimensioned	- Your diagram is missing - Your diagram lacks many components
 Diagram Your Complete Puzzle	+ You made a complete diagram of your assembled puzzle cube + Your diagram has 3 multiview perspectives and 1 isometric	- Your diagram is missing a view - Your diagram is hard to understand	- Your diagram is missing - Your diagram lacks many components

