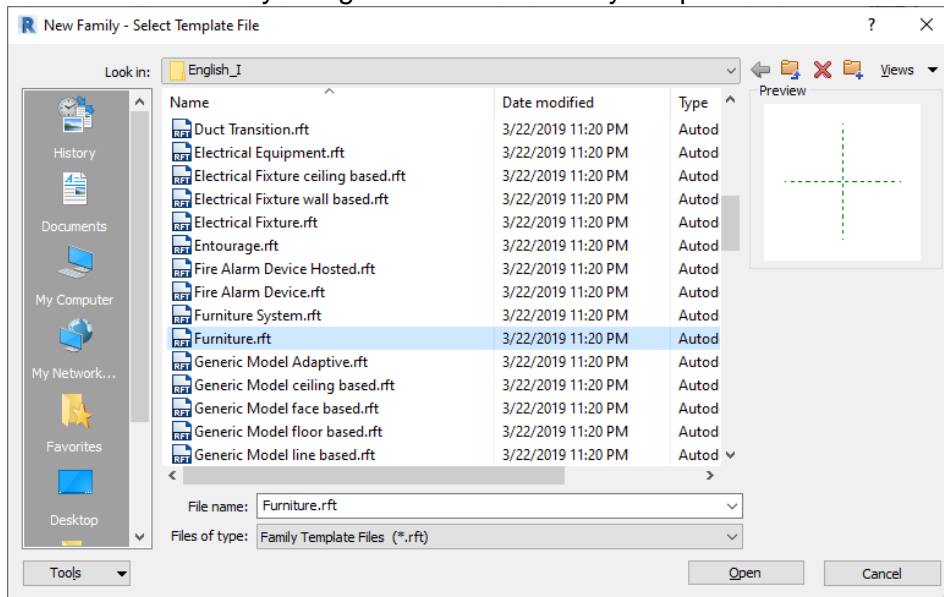


Solution: Practice Exercise 4

Families

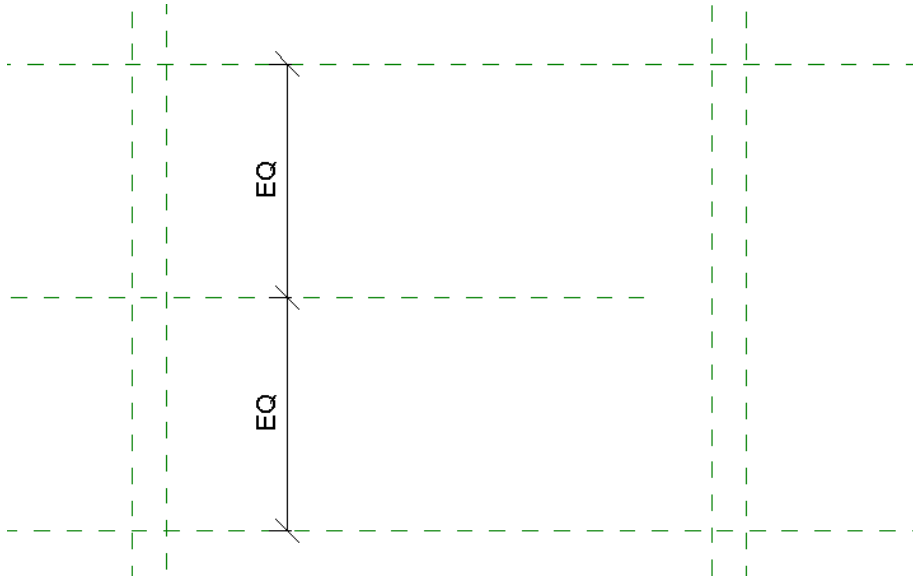


1. Create a new Family using the Furniture Family template.

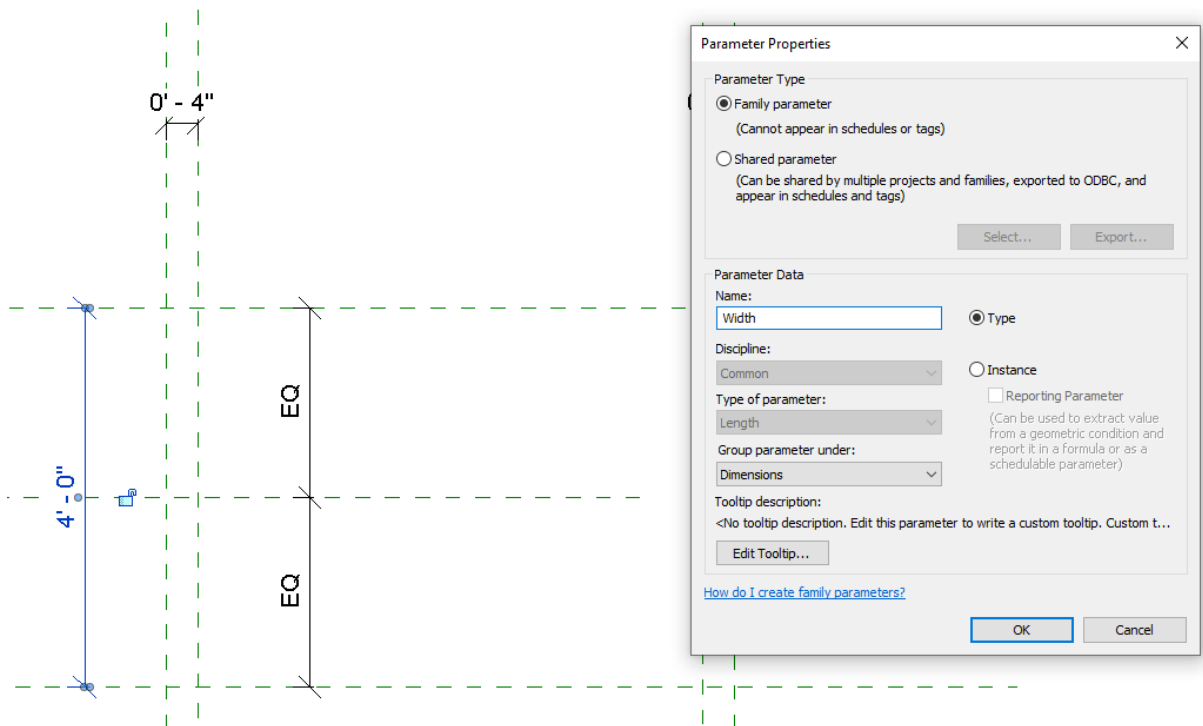


2. Create additional Reference planes for table edges, and the width of the table legs. Ensure that the planes have been dimensioned appropriately so that the table is aligned to the origin on the left and the top and bottom reference planes are equally distant from the middle reference plane.

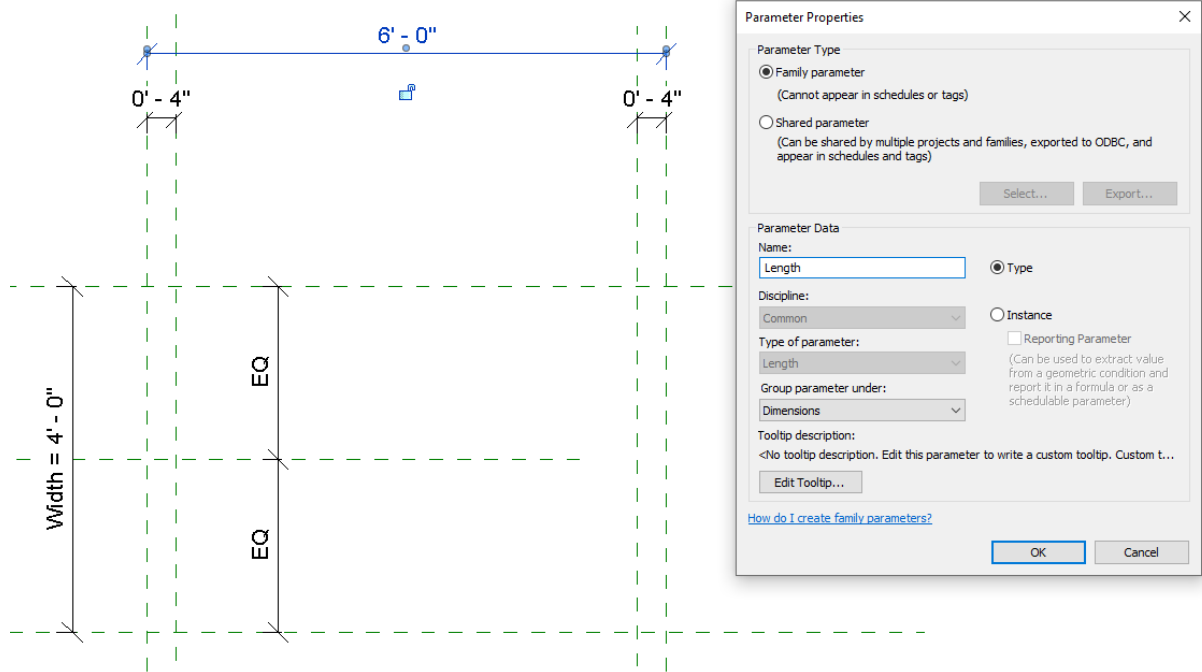




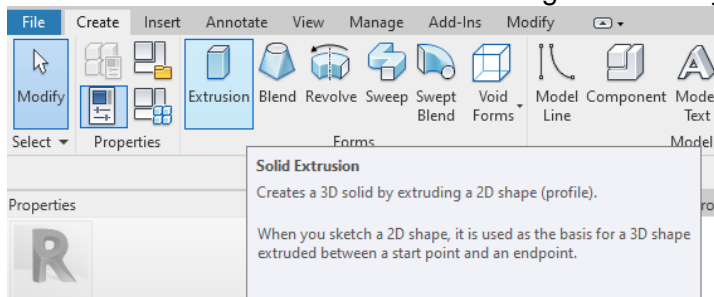
3. Add a new Parameter by selecting the dimension from the top and bottom reference planes, and then selecting the new parameter. Name this parameter Width.

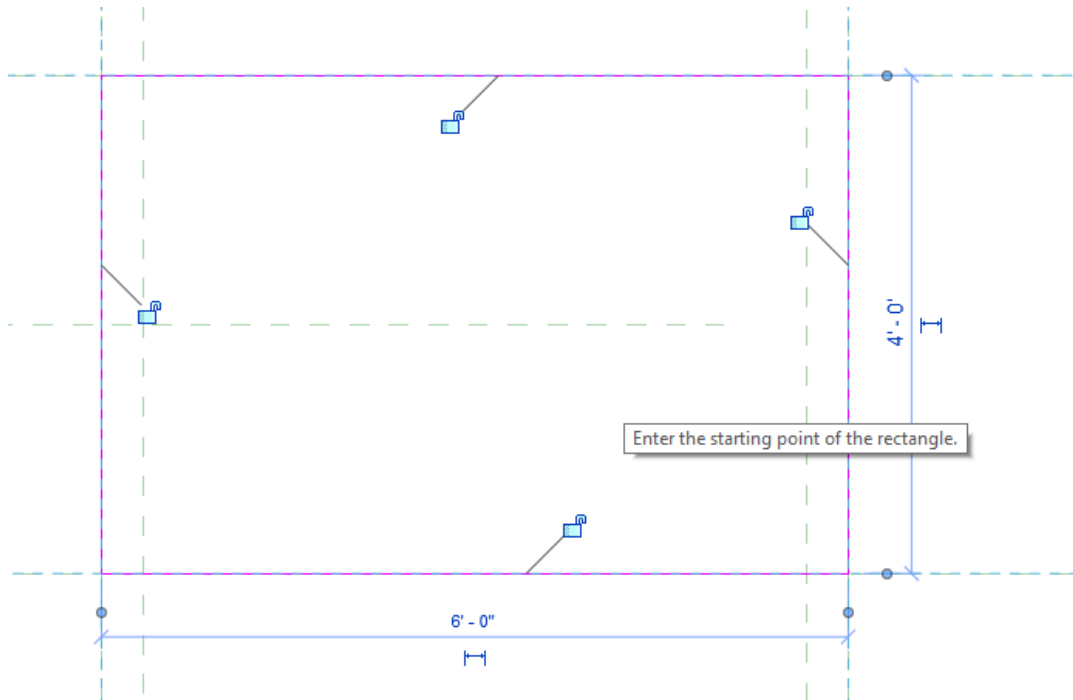


4. Do the same for the horizontal dimension that is representing the length of the table, and name it Length.

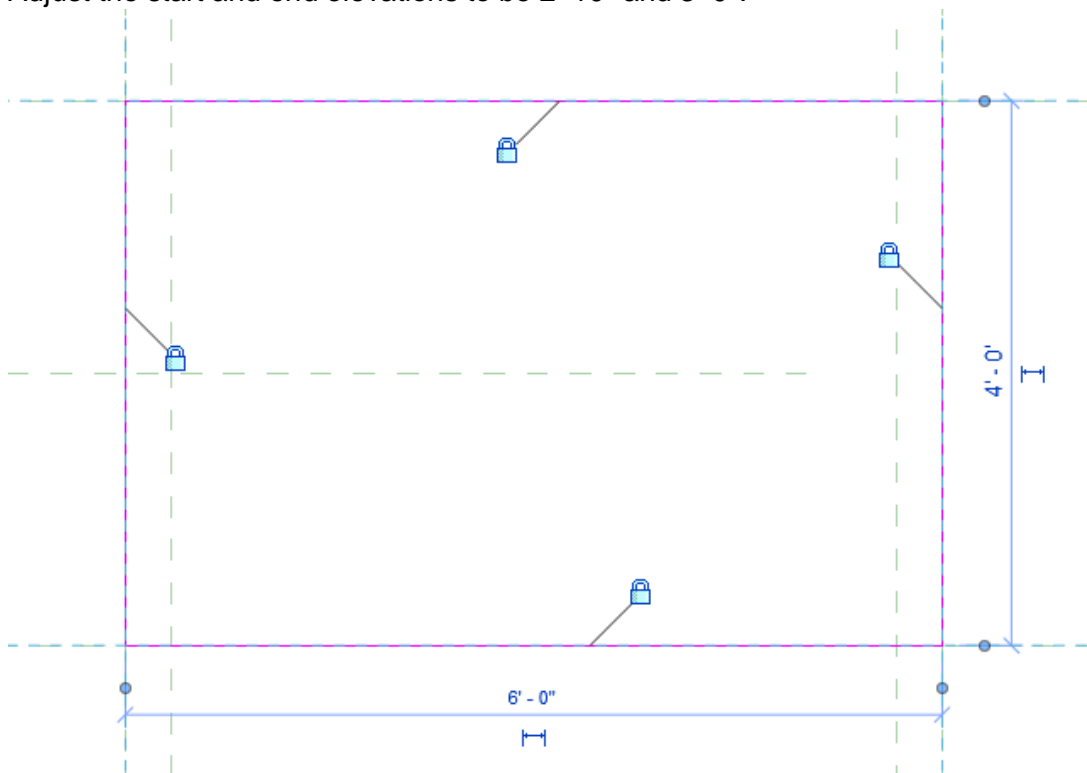


5. Create a new Extrusion. Trace the rectangle created by the Reference Planes.





6. Lock all padlocks so that the edges of the extrusions are locked to the Reference planes. Adjust the start and end elevations to be 2'-10" and 3'-0".

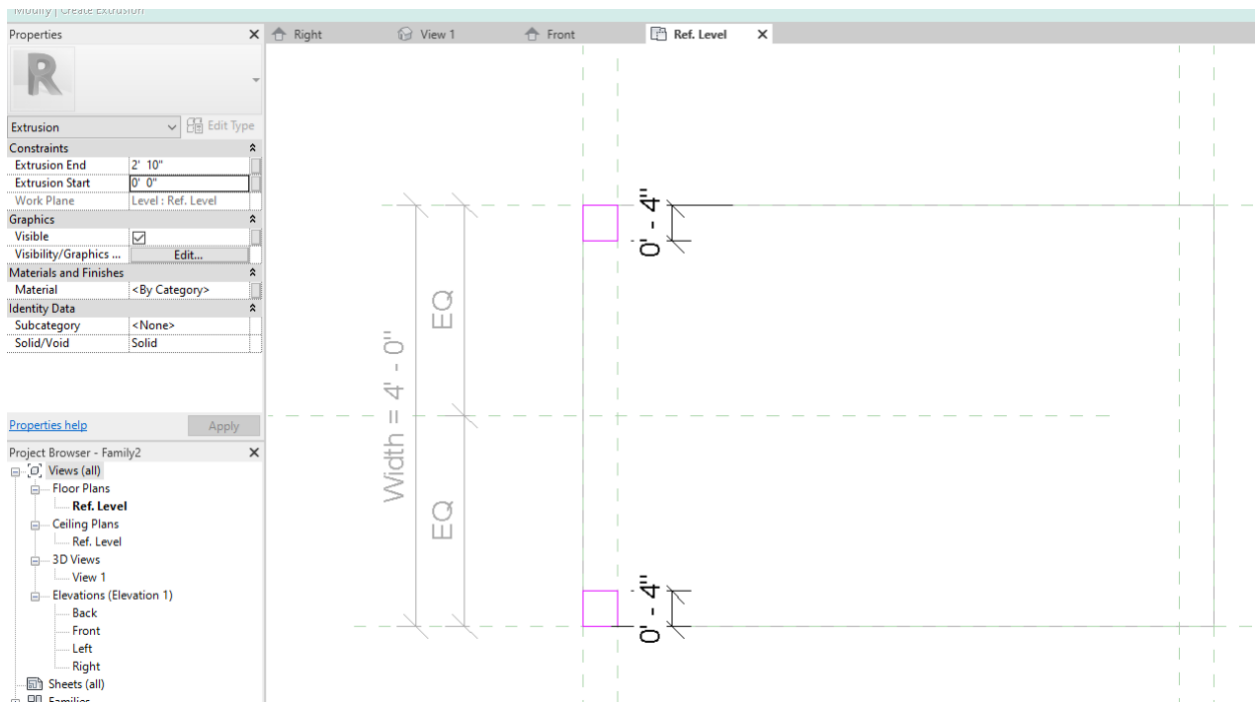
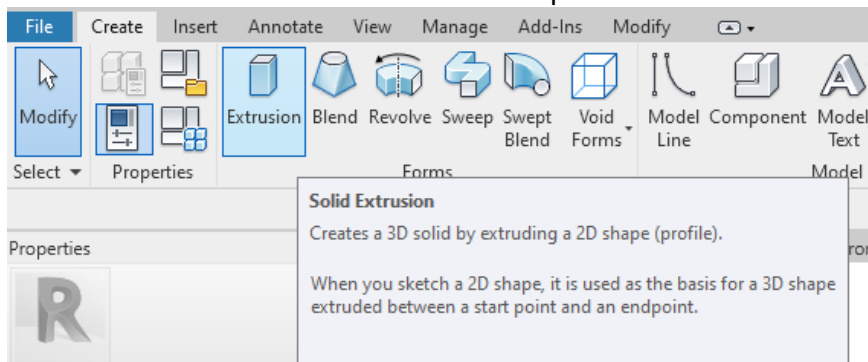


R	
Extrusion	Edit Type
Constraints	
Extrusion End	3' 0"
Extrusion Start	2' 10"
Work Plane	Level : Ref. Level
Graphics	
Visible	<input checked="" type="checkbox"/>
Visibility/Graphics ...	Edit...
Materials and Finishes	
Material	<By Category>
Identity Data	
Subcategory	<None>
Solid/Void	Solid

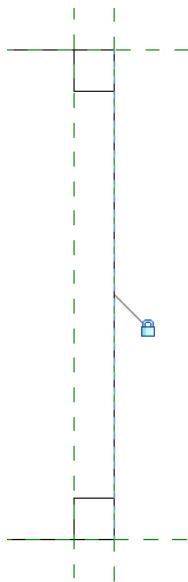
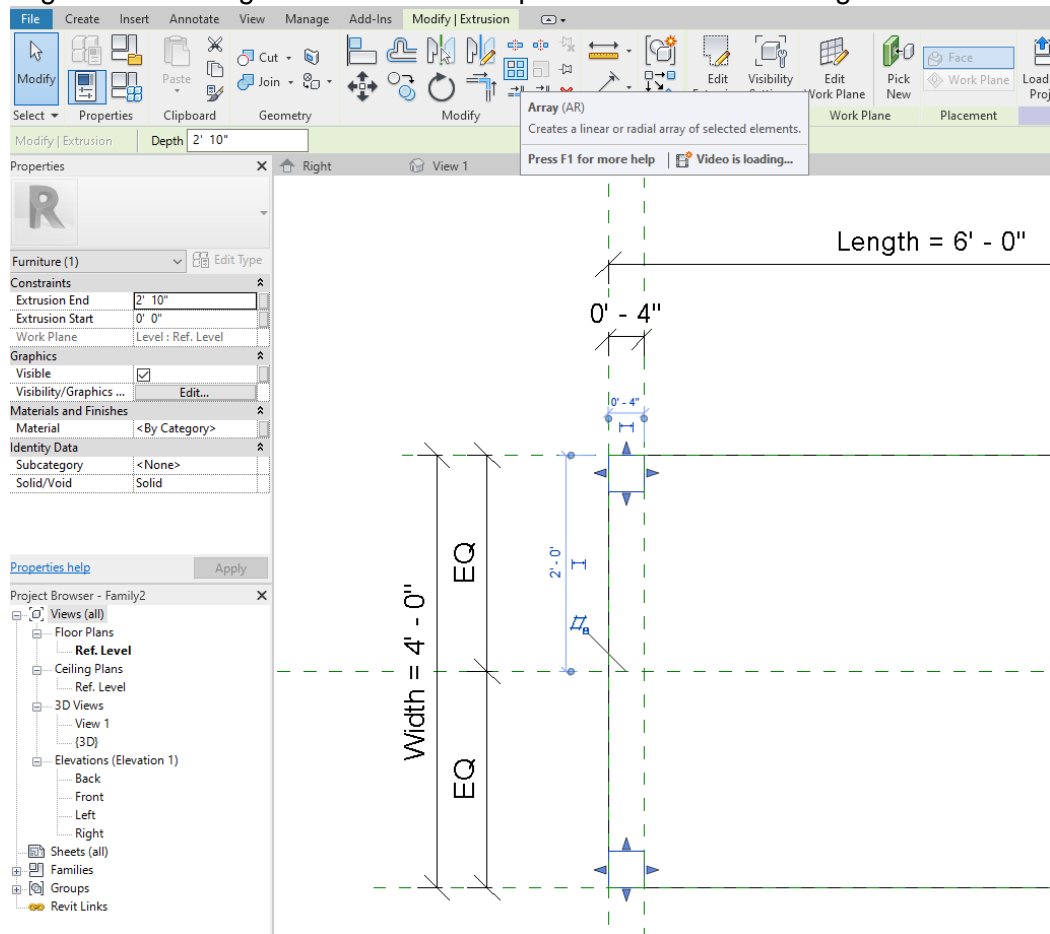
[Properties help](#)

Apply

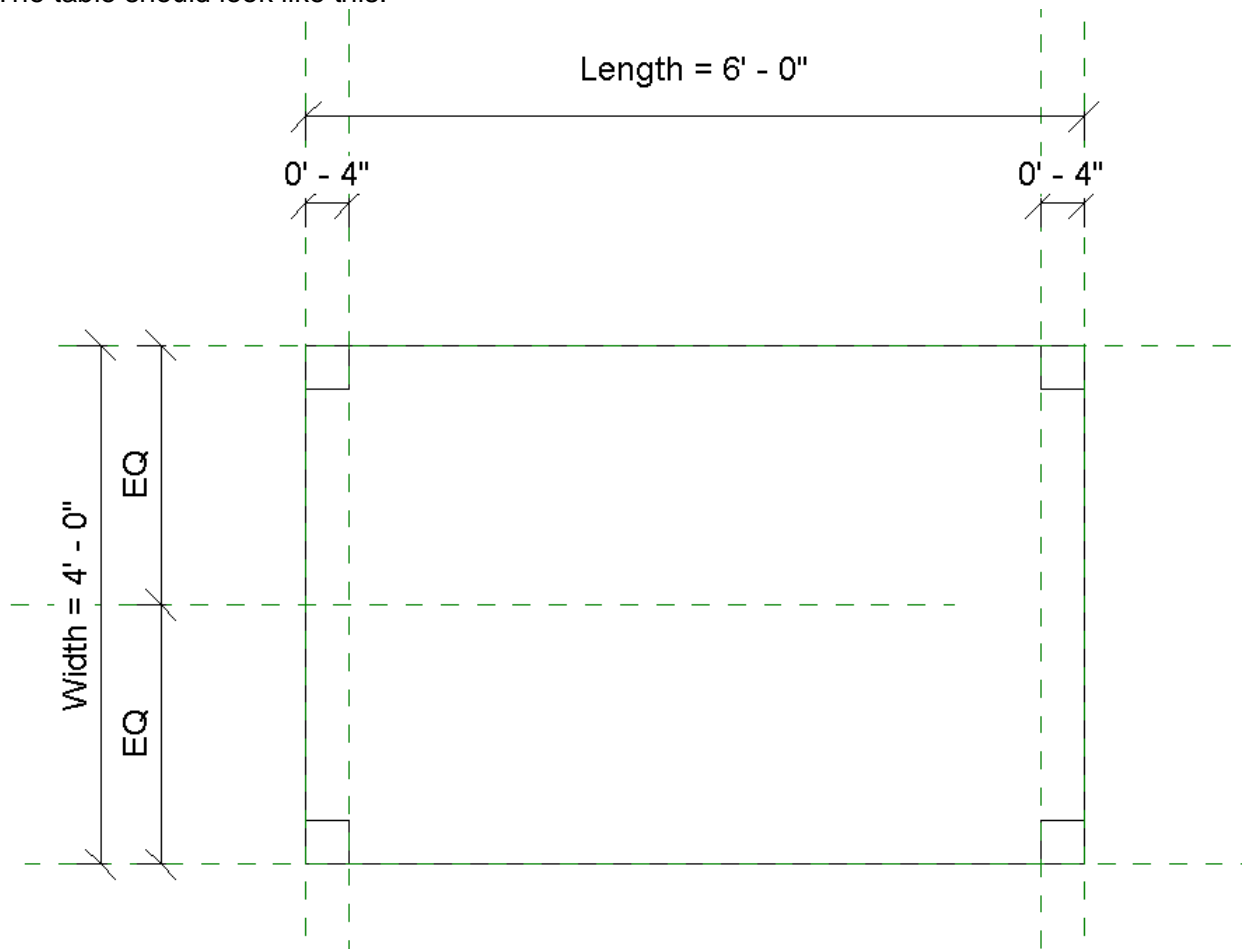
7. Create a new extrusion. This extrusion should represent two legs of the table, 4" x 4". Lock and dimension all sides of the two square boundaries.



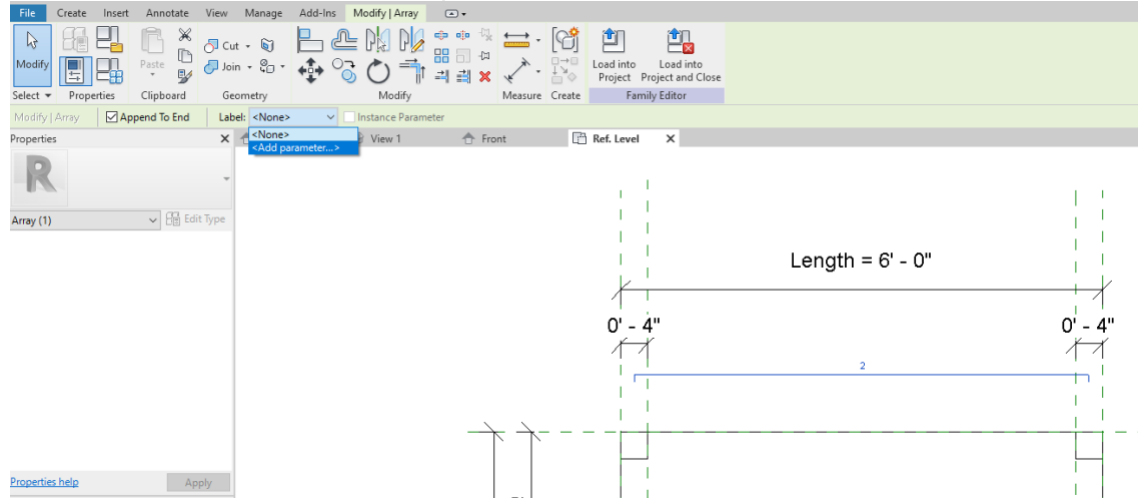
8. Adjust the extrusion start and end to be 0'-0" and 2'-10". Use the Array tool on the Modify | Extrusion contextual tab and create an array so that the new table legs are aligned with the right side of the tabletop extrusion. Lock that alignment.



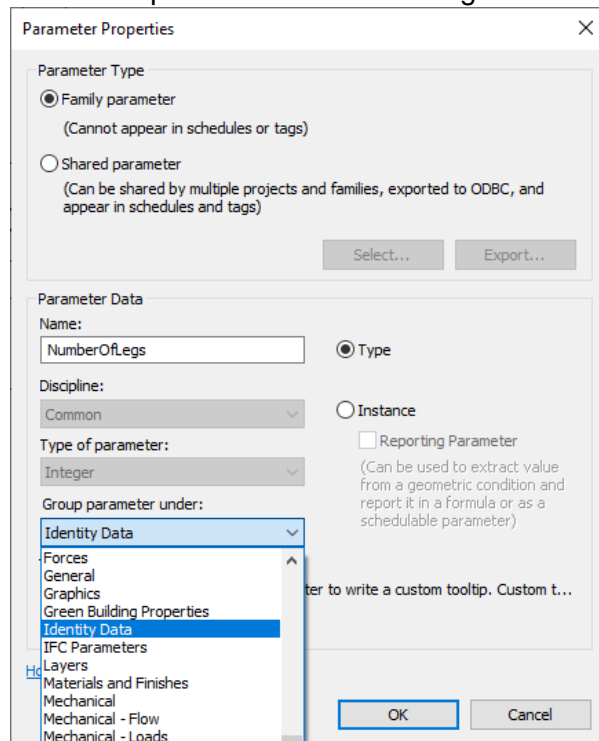
The table should look like this:



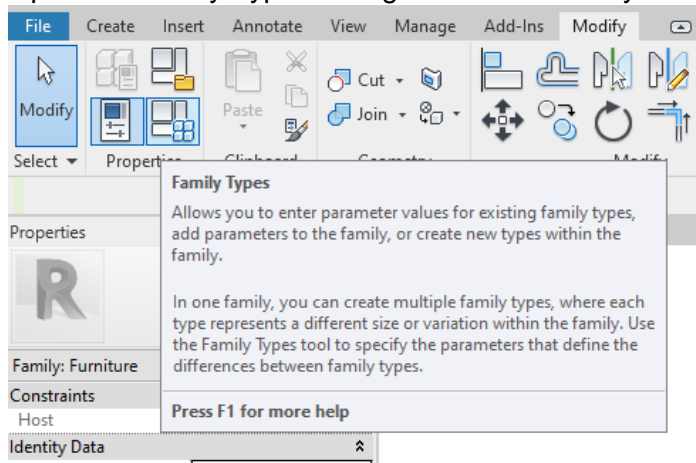
9. Create a new parameter value by selecting the array. Select the array integer, and then Add New Parameter from the drop-down menu.



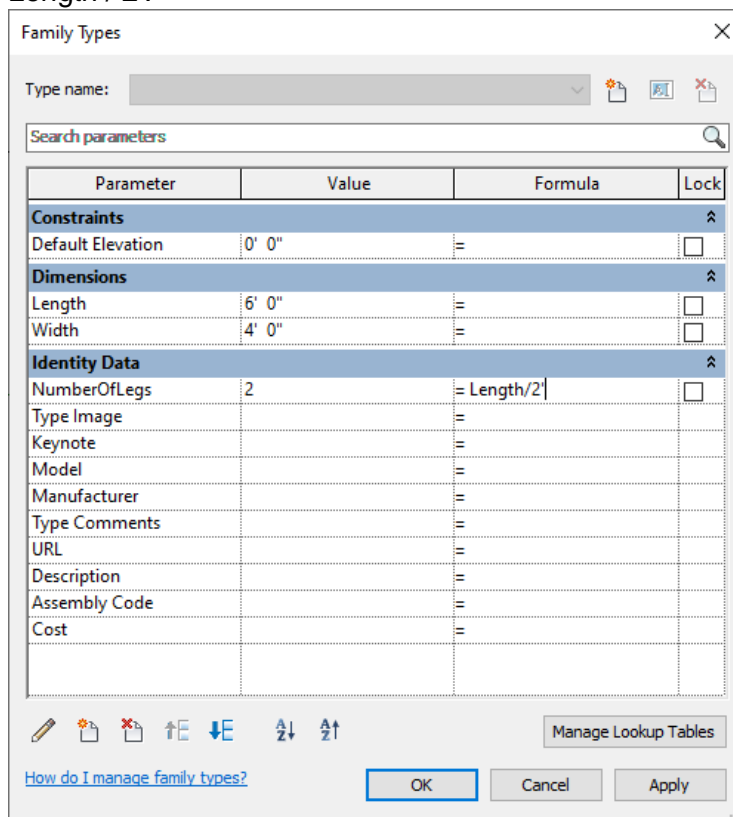
10. Name this parameter NumberOfLegs and set “Group parameter under” to Identity Data.



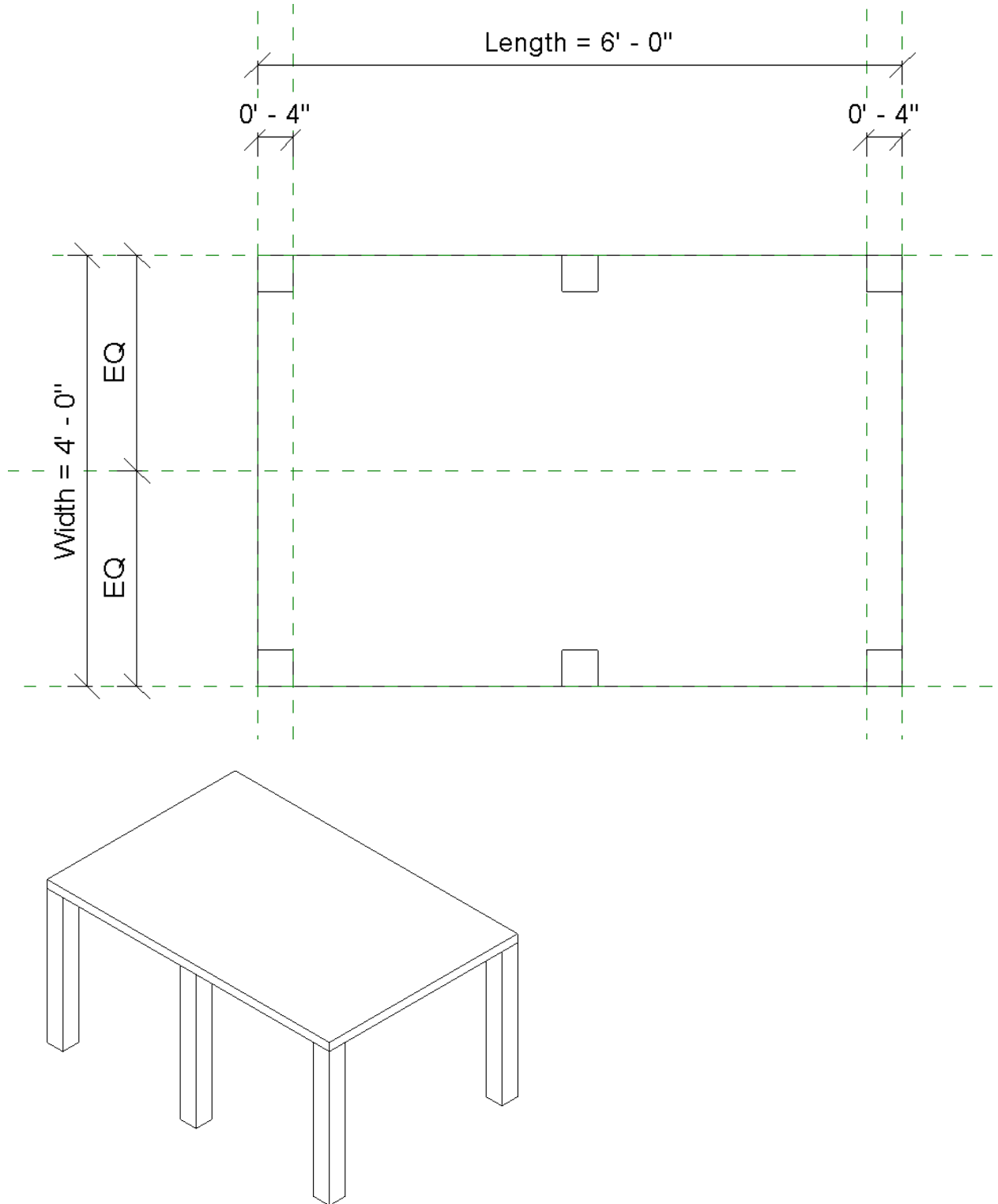
11. Open the Family Types dialog box on the Modify Tab.



12. Change the Formula of NumberOfLegs so that it is linked to Length. Use the formula: = Length / 2'.



13. A middle set of legs should appear in the reference plan view. You can also view the model in 3D view.



14. Change the Length parameter to 10'-0". The table will add additional legs and look like this.

