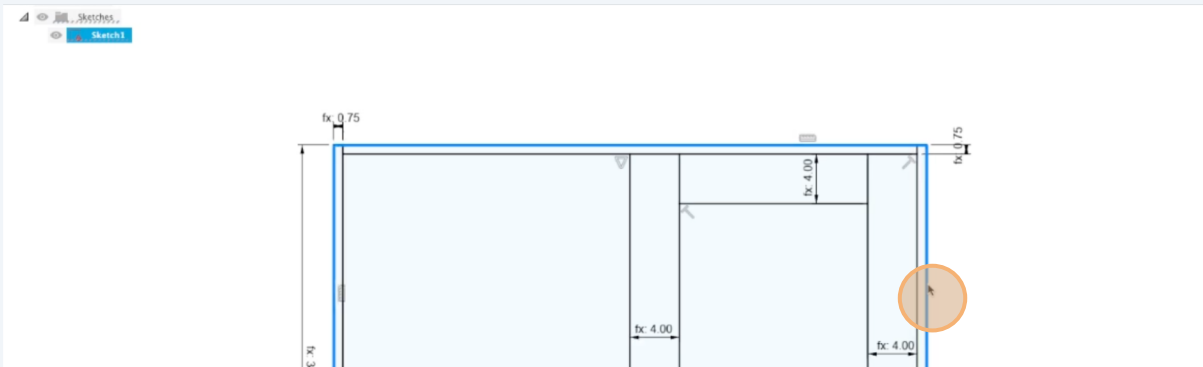


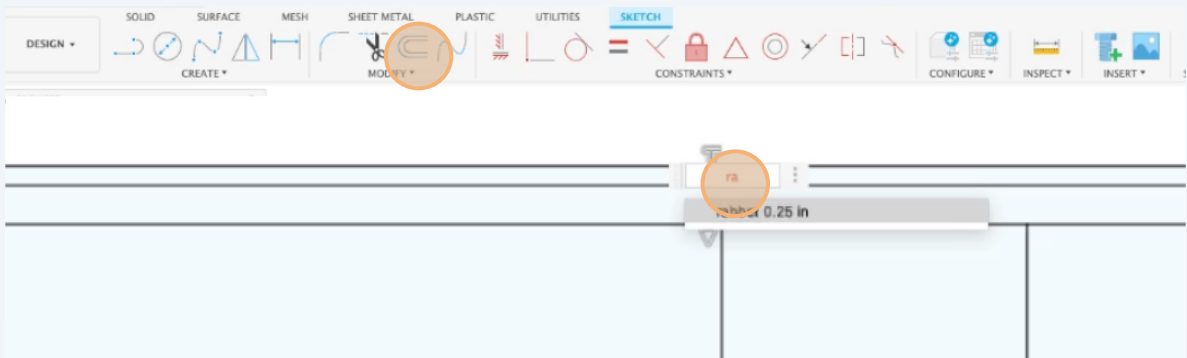
# Adding a back and shelf to the simple cabinet

## Adding the back to the original sketch

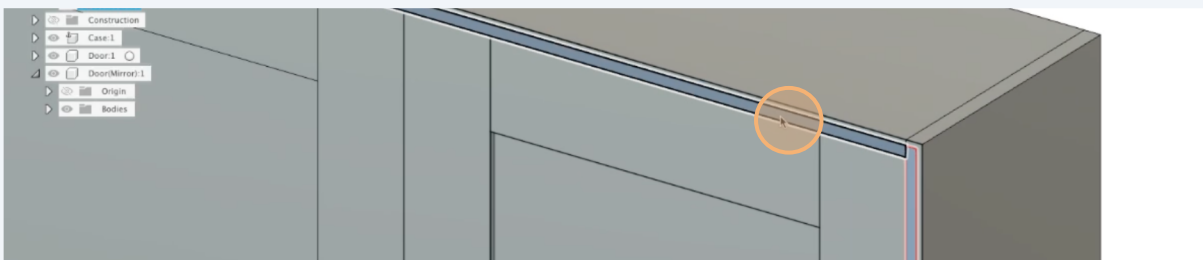
- 1 Open the original sketch and double-click on the outside of the case.



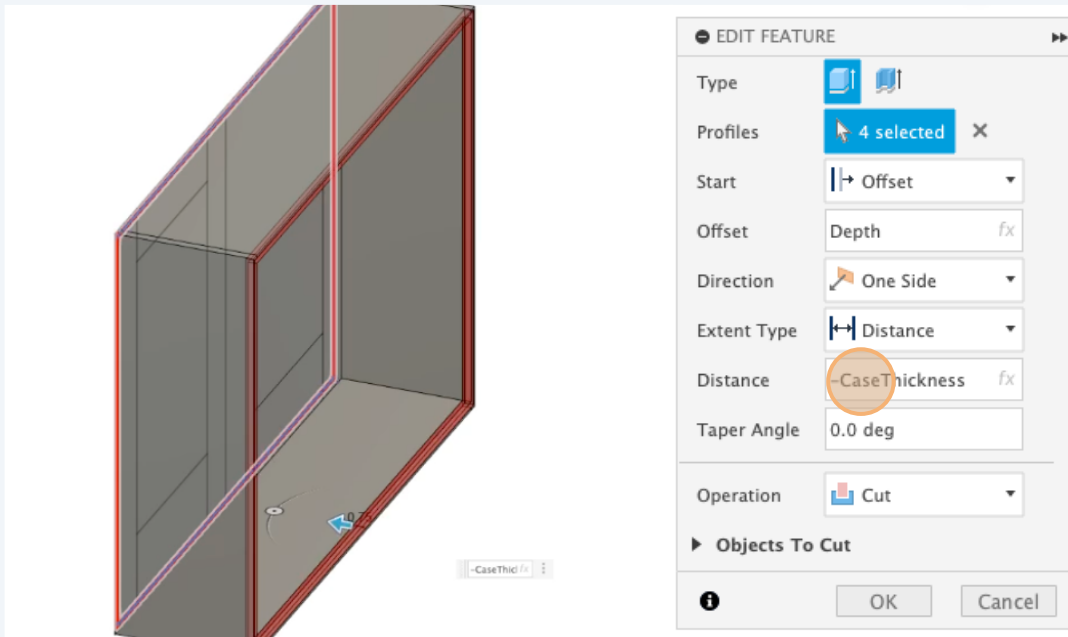
- 2 Use the offset tool to create an offset rectangle .25 inches away or make a parameter to set the offset distance.



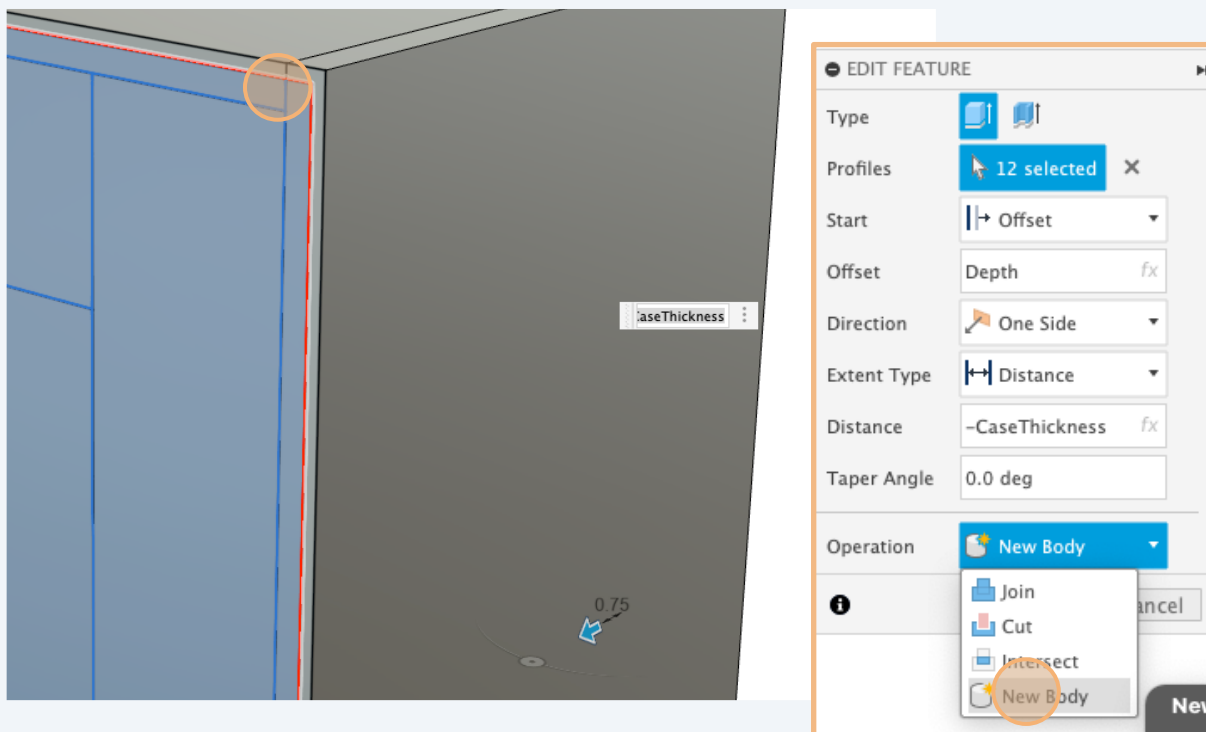
- 3 Close out the sketch. Make the model and sketch visible. Select the inside elements of the rabbet.



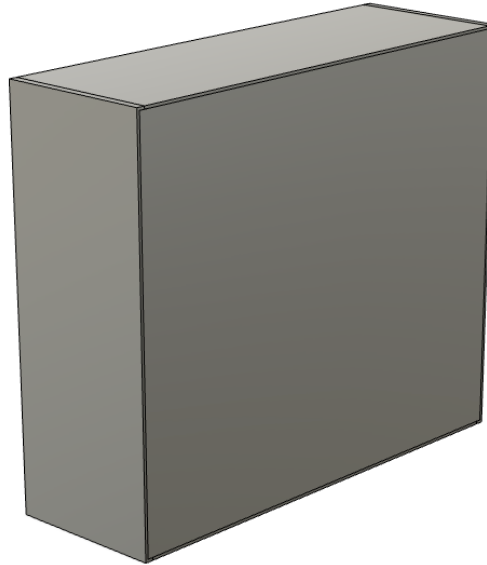
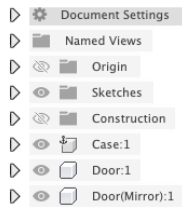
- 4 Change the start to offset, the offset length to 'Depth', and extrude the rabbet as a cut with a distance of 'CaseThickness'.



- 5 Show the sketch again and select the segments that make up the back. Extrude the back as a new body nested into the existing 'case' component.

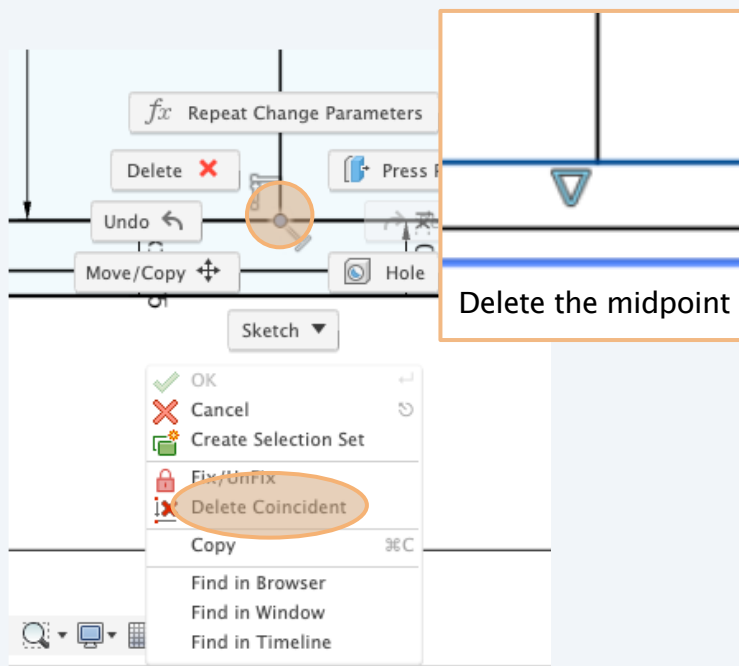


## Back complete!

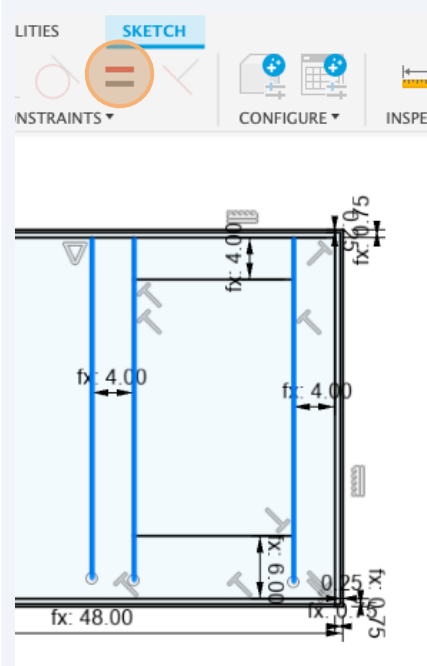


## Adding a shelf to the cabinet

- 6 Create a parameter for the shelf height. Open the sketch, right-click on the coincidence points connecting the styles to the cabinet bottom, and select 'Delete Coincident'.



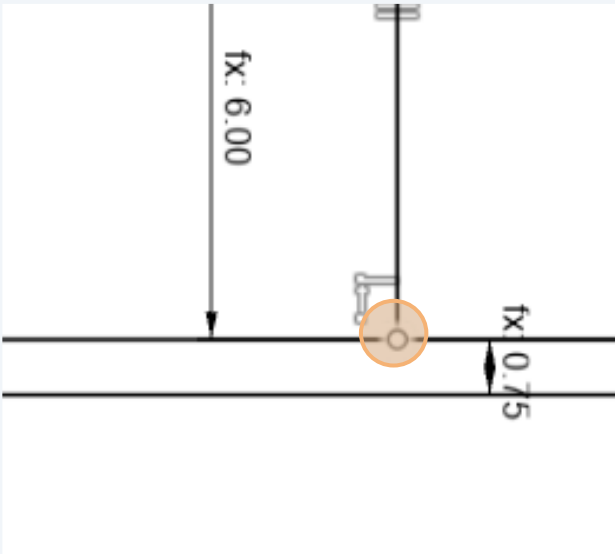
- 7 Select the newly freed lines and use the equal constraint to lock their length together.



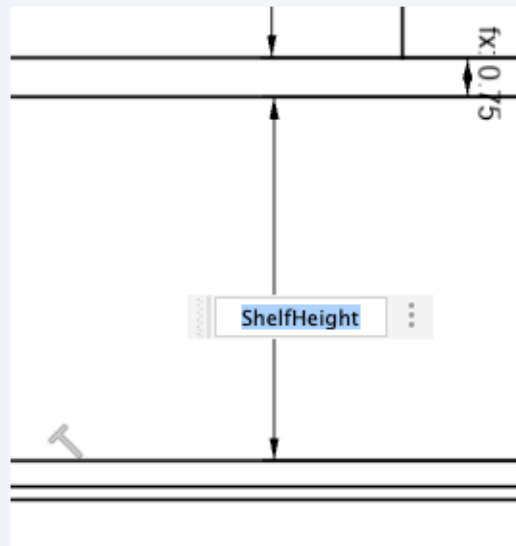
- 8** Add two lines connecting from one side of the case to the other. Dimension them 'case thickness' apart.



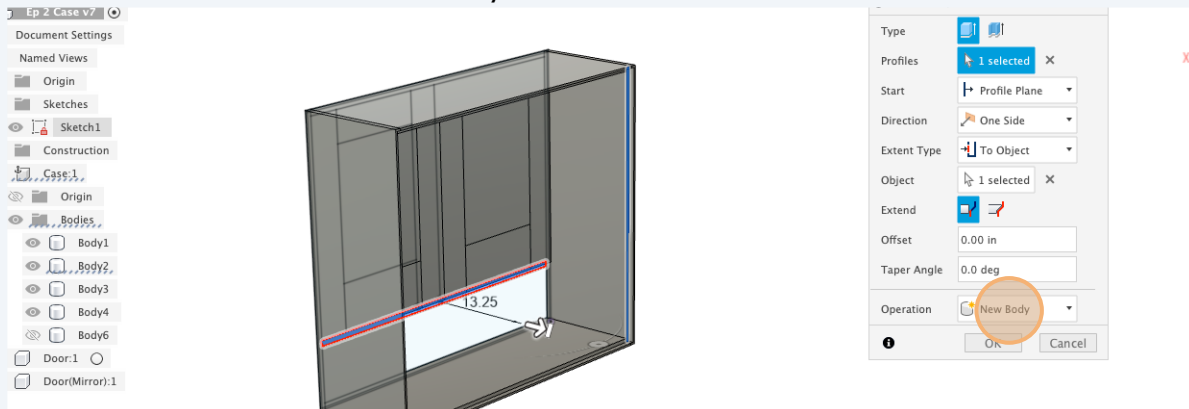
- 9** Drag the style lines down until they snap onto the new shelf line. They are now coincident.



- 10** Dimension the bottom of the shelf to the top line of the case bottom.



- 11** Hide the back and extrude the shelf using the 'To Object' extent type and select the back rabbet as a new body.



**Woot! You've added a back and shelf to the simple cabinet!**

