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Subject: Composite solid geometry

Posted by [Wayne Parham](#) on Sat, 12 Oct 2002 00:03:15 GMT

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The way I would calculate volume of your cabinet is in two parts: First calculate a box with dimensions of height x width x depth of your cabinet at its smallest depth. Then calculate the volume of the wedge shape separately. The dimensions of the wedge would be found as the difference in the cabinet depth at the bottom and depth at the top times the height x width divided by two. So do two things:  $\text{Box} = H \times W \times D$  (at the thinnest section)  $\text{Wedge} = (H \times W \times D) / 2$  (calculates the "slanted section") Add 'em together and you have the total volume. This is called "composite solid geometry" and is simply a matter of dealing with complex shapes by modeling them as a composite group of primitive shapes.