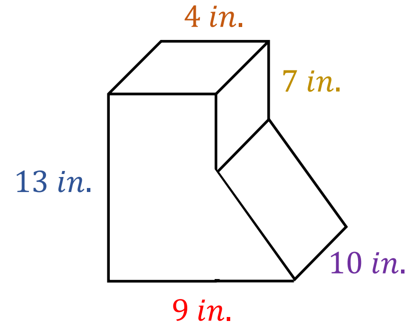
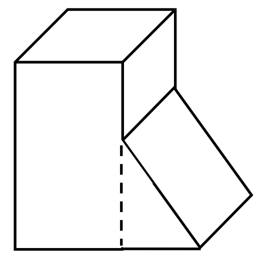
Find the volume of the composite figure.

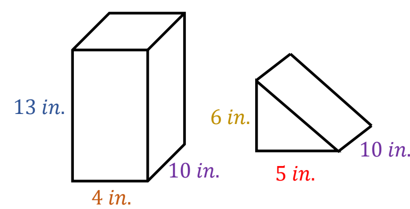


Damien's "Rectangle-Triangle" Method

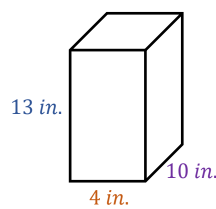
I split the figure into two shapes, a rectangular prism and a triangular prism.



I label each new shape with the lengths from the original diagram.



I use the original dimensions to find the volume of the rectangular prism.



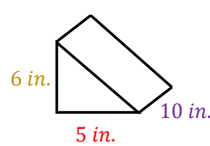
$V = Bh$

$V = (lw)h$

$V = (4)(10)13$

$V = 520\ in.^3$

I do the same thing with the triangular prism.



$V = Bh$

$V = \left(\frac{1}{2}bh\right)h$

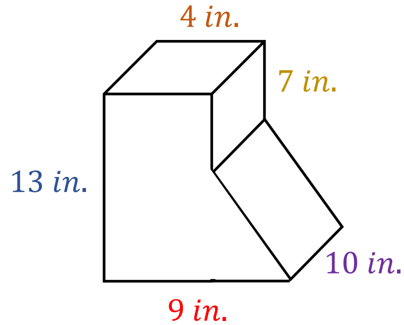
$V = \left(\frac{1}{2}(5)(6)\right)10$

$V = 150\ in.^3$

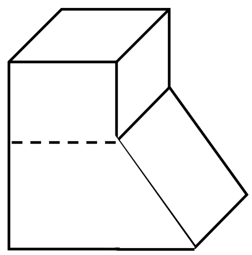
I add the volumes to find the volume of the whole figure!

$$520 + 150 = 670\ in.^3$$

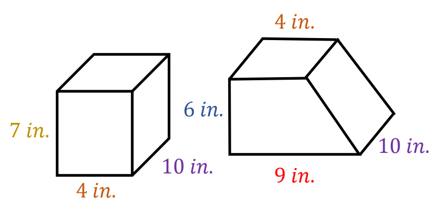
Find the volume of the composite figure.



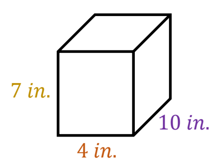
Sydney's "Rectangle-Trapezoid" Method



I split the figure into two shapes, a rectangular prism and a trapezoidal prism.



I label each new shape with the lengths from the original diagram.



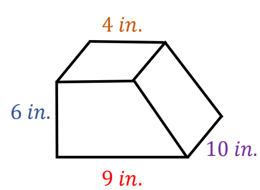
$V = Bh$

$V = (lw)h$

$V = (4)(10)7$

$V = 280\ in.^3$

I use the original dimensions to find the volume of the rectangular prism.



$V = Bh$

$V = \left(\frac{h(b_1 + b_2)}{2}\right)h$

$V = \left(\frac{6(9 + 4)}{2}\right)10$

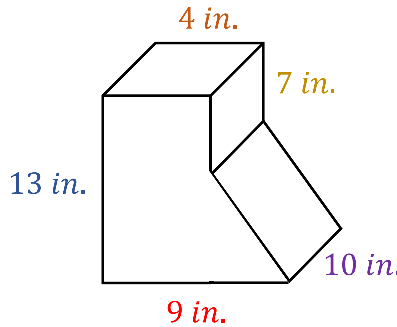
$V = 390\ in.^3$

I do the same thing with the trapezoidal prism.

$280 + 390 = 670\ in.^3$

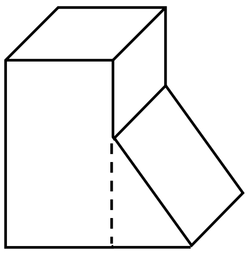
I add the volumes to find the volume of the whole figure!

Find the volume of the composite figure.

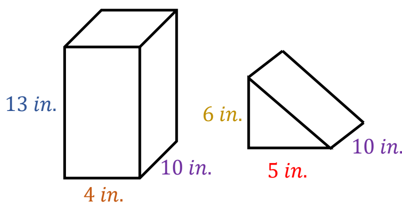


Damien's "Rectangle-Triangle" Method

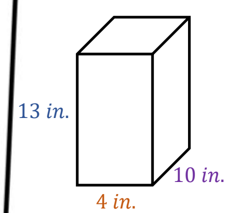
I split the figure into two shapes, a rectangular prism and a triangular prism.



I label each new shape with the lengths from the original diagram.



I use the original dimensions to find the volume of the rectangular prism.



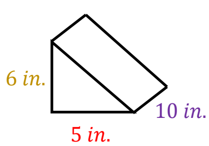
$V = Bh$

$V = (lw)h$

$V = (4)(10)13$

$V = 520\ in.^3$

I do the same thing with the triangular prism.



$V = Bh$

$V = \left(\frac{1}{2}bh\right)h$

$V = \left(\frac{1}{2}(5)(6)\right)10$

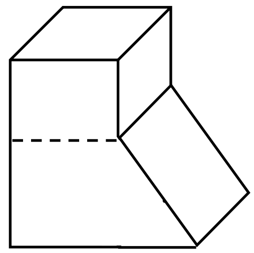
$V = 150\ in.^3$

I add the volumes to find the volume of the whole figure!

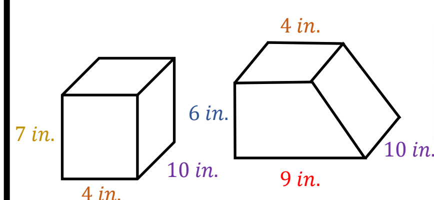
$520 + 150 = 670\ in.^3$

Sydney's "Rectangle-Trapezoid" Method

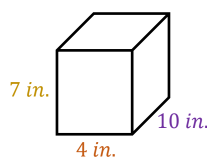
I split the figure into two shapes, a rectangular prism and a trapezoidal prism.



I label each new shape with the lengths from the original diagram.



I use the original dimensions to find the volume of the rectangular prism.



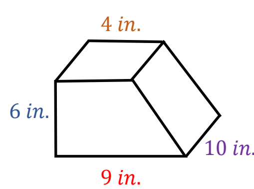
$V = Bh$

$V = (lw)h$

$V = (4)(10)7$

$V = 280\ in.^3$

I do the same thing with the trapezoidal prism.



$V = Bh$

$V = \left(\frac{h(b_1 + b_2)}{2}\right)h$

$V = \left(\frac{6(9 + 4)}{2}\right)10$

$V = 390\ in.^3$

I add the volumes to find the volume of the whole figure!

$280 + 390 = 670\ in.^3$

V.5: *Composite Figures*

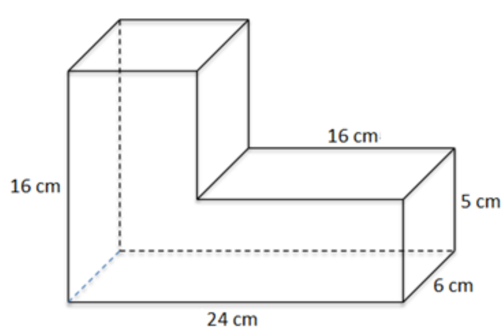
1) What are the similarities and differences between Damien and Sydney's methods?

Similarities	Differences

2) Which of the two methods, Damien's or Sydney's, would you use to solve a problem like this? Why?

3) Describe the process you can use to find the volume of a composite figure.

4) Find the volume of the following figure.



Find the volu… om…

I never realized there are so many ways to get a right answer in math!

Sydney and I found the volume of different shapes to find the volume of the same composite figure, and we both came up with the same answer.

I guess it's just important to break the figure into the shapes that are easiest to find the volume of.

Damien's "R…

I split the … into two sh… rectangular… and a trian… prism.

I label each ne… shape with t… lengths from… original diag…

I use the origina… dimensions to find the volume of the rectangular prism.

I do the sa… thing with t… triangular pris…

I add … s to fin… e of t… figure!

13 in.

4 in.

10 in.

5 in.

$V = Bh$

$V = \left(\frac{1}{2}bh\right)h$

$V = \left(\frac{1}{2}(5)(6)\right)10$

$V = 150\ in.^3$

$520 + 150 = 670\ in.^3$

…d

…w … the … om the …nal diagram.

…se the original …mensions to find the volume of the rectangular prism.

= 28…

I do the same thing with the trapezoidal prism.

I add the volumes to find the volume of the whole figure!

6 in.

10 in.

9 in.

$V = Bh$

$V = \left(\frac{h(b_1 + b_2)}{2}\right)h$

$V = \left(\frac{6(9 + 4)}{2}\right)10$

$V = 390\ in.^3$

$280 + 390 = 670\ in.^3$