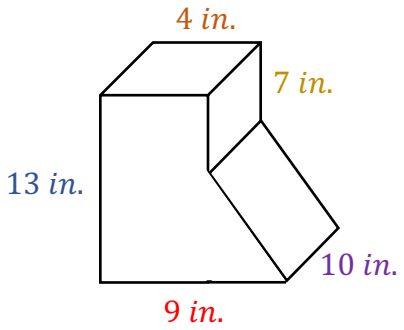
Find the volume of the composite figure.



Damien's "Rectangle-Triangle" Method

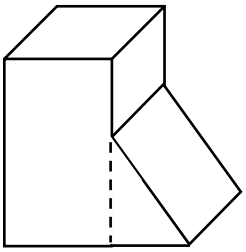
I split the figure into two shapes, a rectangular prism and a triangular prism.

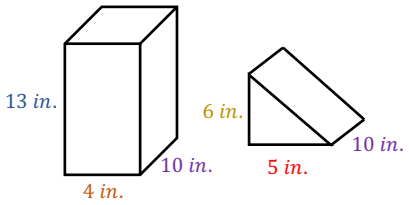
I label each new shape with the lengths from the original diagram.

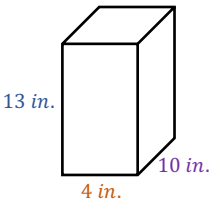
I use the original dimensions to find the volume of the rectangular prism.

I do the same thing with the triangular prism.

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





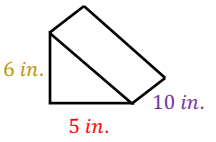


$V = Bh$

$V = (lw)h$

$V = (4)(10)13$

$V = 520\ in.^3$



$V = Bh$

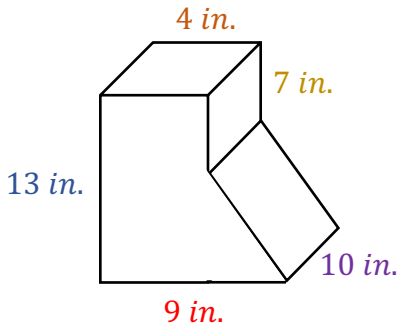
$V = \left(\frac{1}{2}bh\right)h$

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

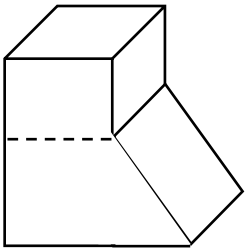
$V = 150\ in.^3$

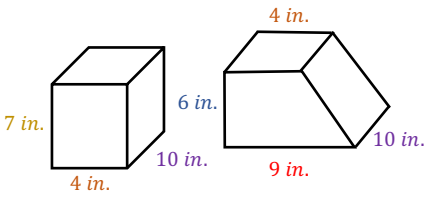
$520 + 150 = 670\ in.^3$

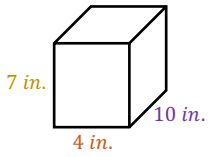
Find the volume of the composite figure.



Sydney's "Rectangle-Trapezoid" Method





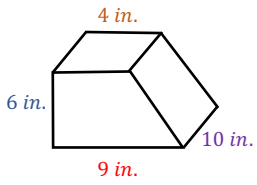


$V = Bh$

$V = (lw)h$

$V = (4)(10)7$

$V = 280\ in.^3$



$V = Bh$

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

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

$V = 390\ in.^3$

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

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

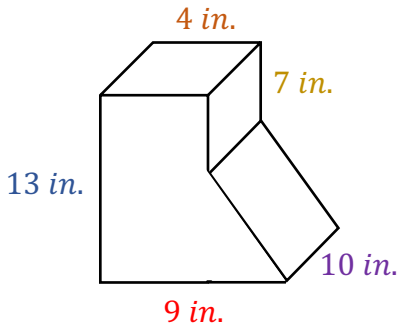
I label each new shape with the lengths from the original diagram.

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

I do the same thing with the trapezoidal prism.

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

Find the volume of the composite figure.



Damien's "Rectangle-Triangle" Method

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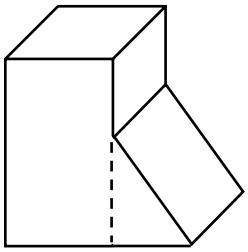
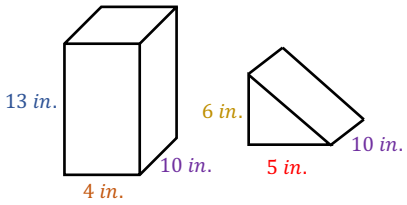
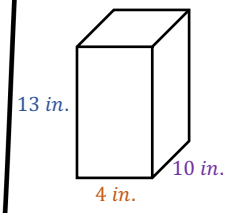
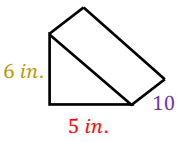
I add the volumes to find the volume of the whole figure!







$V = Bh$
$V = (lw)h$
$V = (4)(10)13$
$V = 520\ in.^3$



$V = Bh$
$V = \left(\frac{1}{2}bh\right)h$
$V = \left(\frac{1}{2}(5)(6)\right)10$
$V = 150\ in.^3$

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

Sydney's "Rectangle-Trapezoid" Method

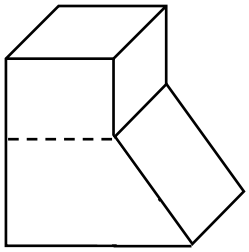
I split the figure into two shapes, a rectangular prism and a trapezoidal prism.

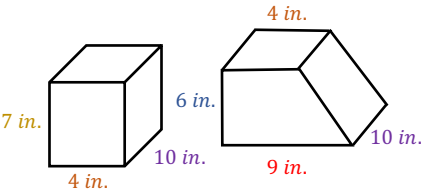
I label each new shape with the lengths from the original diagram.

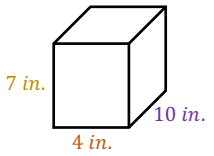
I use the original dimensions to find the volume of the rectangular prism.

I do the same thing with the trapezoidal prism.

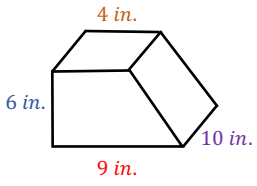
I add the volumes to find the volume of the whole figure!







$V = Bh$
$V = (lw)h$
$V = (4)(10)7$
$V = 280\ in.^3$



$V = Bh$
$V = \left(\frac{h(b_1 + b_2)}{2}\right)h$
$V = \left(\frac{6(9+4)}{2}\right)10$
$V = 390\ in.^3$

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

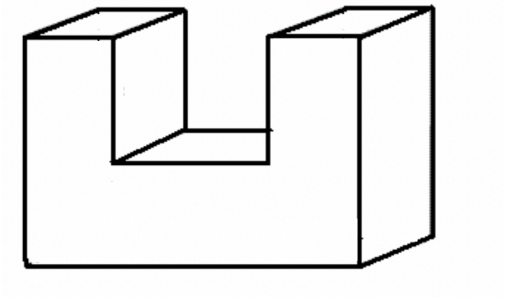
V.5: *Composite Figures*

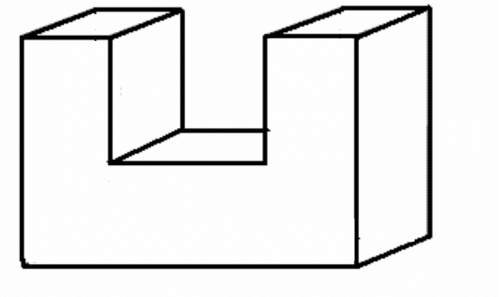
1) What are the similarities and differences between Damien and Sydney's methods?

Similarities	Differences

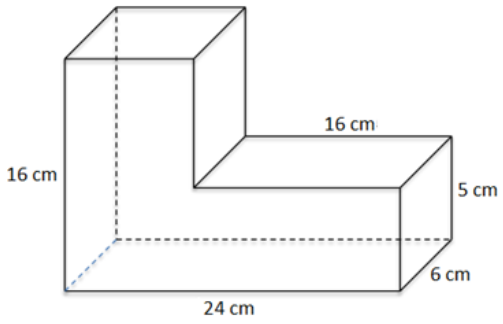
2) Which of the two methods, Damien's or Sydney's, would you use to solve a problem like this? Why?

3) In the figure below, identify two (2) different ways to split the figure. Draw in lines where you would split the figure. Then, write the formulas you would use to find the volume of each region you create. *You do NOT have to solve the problem.*





4) Find the volume of the following figure.



Find the volu **m**

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 **d**

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

I label each ne shape with t lengths from original diagr

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

13 *in*

4 *in*

I do the sa thing with t triangular pris

10 *in*.

5 *in*.

$V = Bh$

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

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

$V = 150\ in.^3$

I add t s to fin e of t figure.

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

w the om the nal diagram.

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

$= 28$

6 *in*

10 *in*.

9 *in*.

$V = Bh$

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

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

$V = 390\ in.^3$

I do the same thing with the trapezoidal prism.

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

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