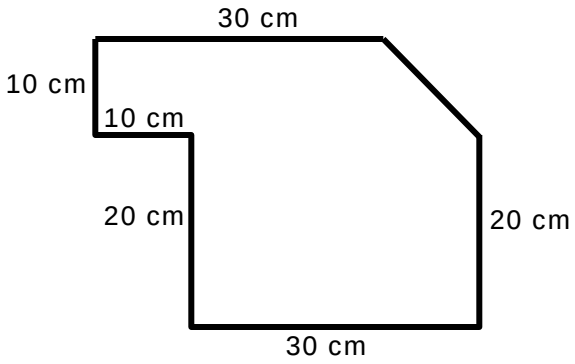
Finding the Area of a Composite Figure Part 2

Flossville Park, Safety First Subtask 2: Cover the picnic area with rubber mulch.
Windjammer Center, Pentagonal Plot Subtask 2: Cover the garden with soil mix.

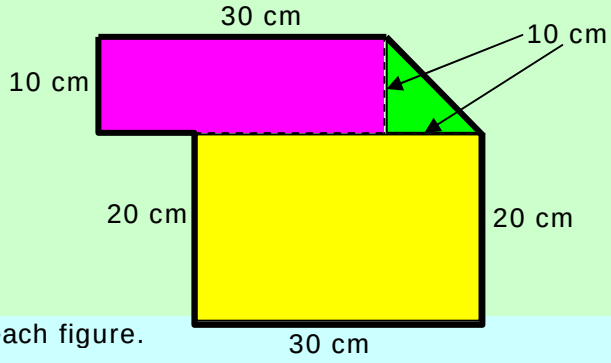
A **composite figure** is made up of several simple geometric figures such as triangles, rectangles, squares, circles, and semicircles.

To find the **area** of a composite figure, separate the figure into simpler shapes whose area can be found. Then add the areas together. Be sure than none of the simpler figures have overlapping areas.

Example 1: Find the area of the composite shape shown below.



First separate the composite shape into 3 simpler shapes, in this case two rectangles and a triangle. (There is more than one way to separate the composite figure into simpler figures. This is one example of how it could be done.)



Then find the area of each figure.

Top Rectangle:

$A = lw$

$A = (30\,\text{cm})(10\,\text{cm})$

$A = 300\,\text{cm}^2$

Bottom Rectangle:

$A = lw$

$A = (30\,\text{cm})(20\,\text{cm})$

$A = 600\,\text{cm}^2$

Right Triangle:

$A = \frac{1}{2}bh$

$A = \frac{1}{2}(10\,\text{cm})(10\,\text{cm})$

$A = 50\,\text{cm}^2$

Finally, add the areas of the simpler figures together to find the total area of the composite figure.

Area of top rectangle + area of bottom rectangle + area of right triangle
$300\,\text{cm}^2$ + $600\,\text{cm}^2$ + $50\,\text{cm}^2$

The area of the composite shape is $950\,\text{cm}^2$.

