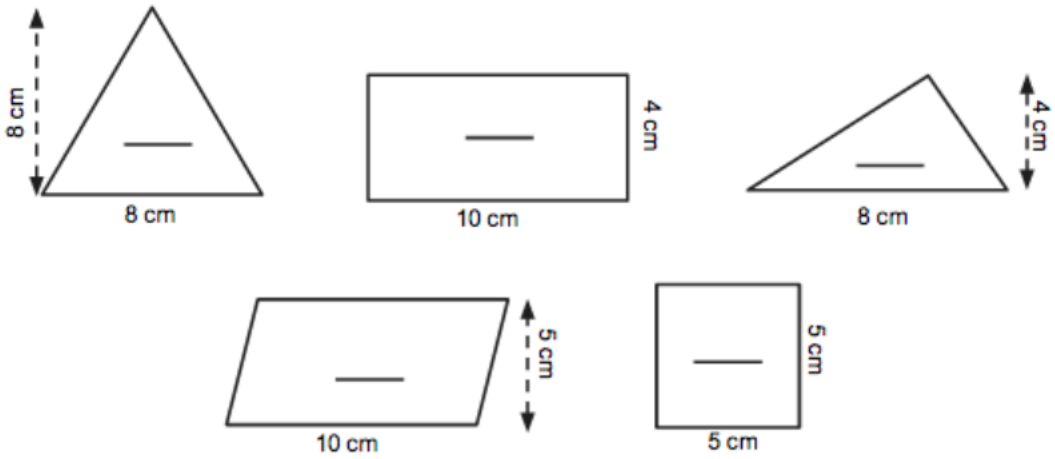
Name_____

Date_____

# Composing and Decomposing 2-D Polygons

## The Launch: Composing 2-D Polygons using Rectangles, Triangles, and Other Shapes

Solve for the area of each of the polygons below and write the area on the line inside each polygon.



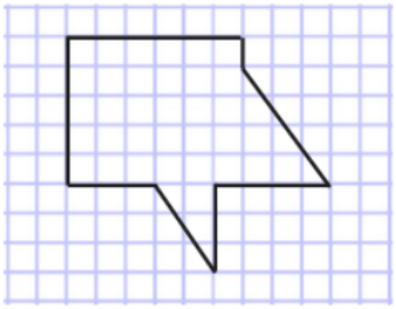
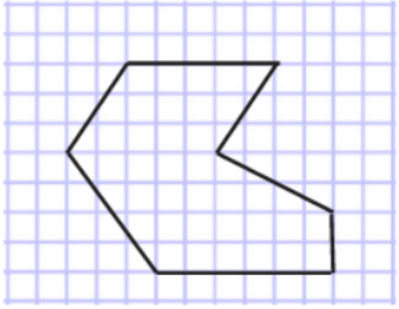
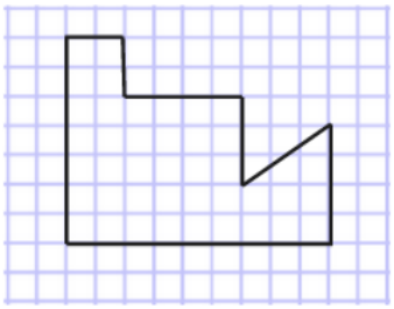

Cut out four polygons of your choice from the assortment above. The side length and height measurements do not need to be included. Combine two of the polygons to create a new shape. Do this again with the other two. Tape them together and glue them in the boxes below. Solve for the total area of each newly composed polygon.

Area = _____ square cm

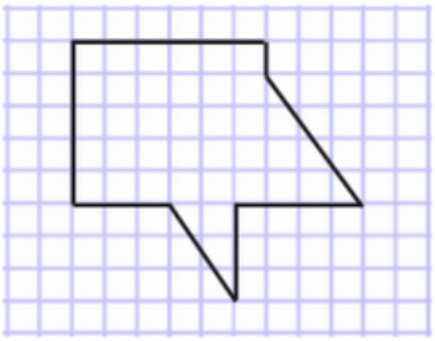
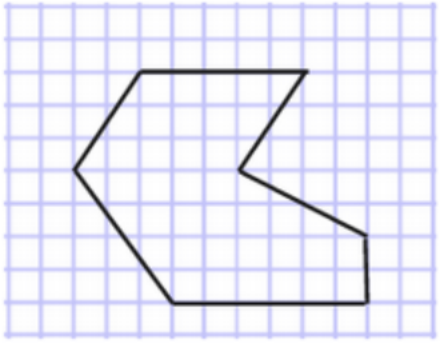
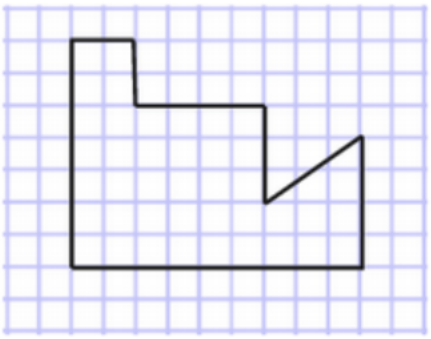
Area = _____ square cm

## Task Part One: Decomposing 2-D Polygons into Rectangles, Triangles, and Other Shapes

Decompose the polygons below. Find the area of each of the shapes within the polygon.

**Task Part Three: Solving for the Area of 2-D Polygons**
Solve for the area of each of the polygons (same polygons from part two).

Area = _____ sq. units  Area = _____ sq. units  Area = _____ sq. units

Explain how you solved for the area of each of the composite polygons above.

Write a rule that explains how the area of a polygon is “additive”.

How can the area of a unique composite polygon be found by decomposing the polygon into different shapes?