Activity 2: Making a Composite Shape

Imagine cutting out the four rectangles and then arranging them to make one combined shape.

1. Do you predict the area of the new combined shape will be larger, smaller, or the same as the total area of the four shapes you started with?

2. Do you predict the perimeter of the new combined shape will be larger, smaller, or the same as the sum of the perimeters of the four rectangles you started with?

Now actually cut out your four rectangles and tape them together carefully to make one new combined shape. *No overlaps, no gaps!*

3. What is the area of the new shape? How do you know?

4. What is the perimeter of the new shape? How do you know?

5. How many sides does the shape have?

6. How many angles does the shape have? Are they all 90° angles?

My Composite Shape (a sketch)	Area (A) sq. cm	Perimeter (P) cm	Number of Angles	Number of Sides

You cannot measure area with a ruler because rulers measure length in *lines*. Area is measured in *square* units. How many **square centimeters** (sq. cm) are inside this shape?
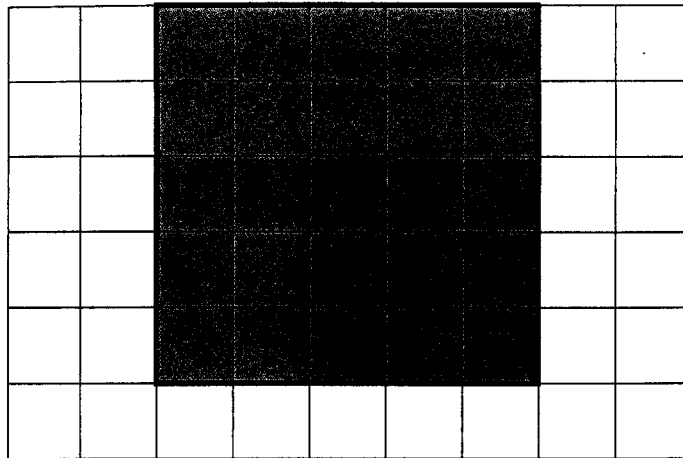
Activity 1: Drawing Four Rectangles

- Draw a 5 cm x 10 cm rectangle on square-centimeter grid paper. Label it "Rectangle 1." Draw three more rectangles of different dimensions on the grid paper. Label them "Rectangles 2, 3, and 4."

- Record the measurements in the table below. Use *cm* for length, width, and perimeter measures and *sq. cm* for area.

	Length (*l*) in cm	Width (*w*) in cm	Area (*A*) in sq. cm	Perimeter (*P*) in cm
Rectangle 1				
Rectangle 2				
Rectangle 3				
Rectangle 4				
All Rectangles Combined				

After you are done, ask a partner to check your measurements. Make sure you both agree the information you each recorded is accurate.