

# Complex area

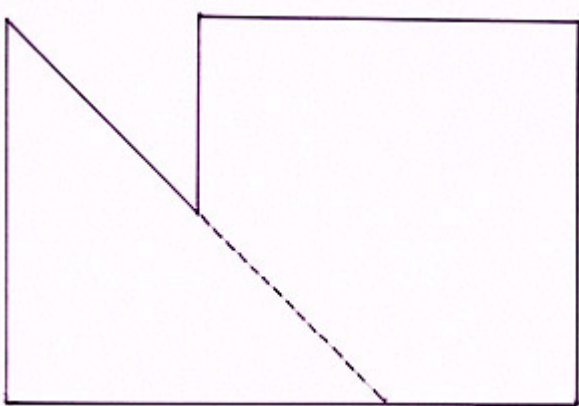
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## Annotation

Georgia is able to calculate the area of a complex shape by mentally separating the shape into familiar shapes. She is able to use her knowledge of the formula for the area of a rectangle and a right-angled triangle to calculate the area of the complex shape.

## Problem: Complex area

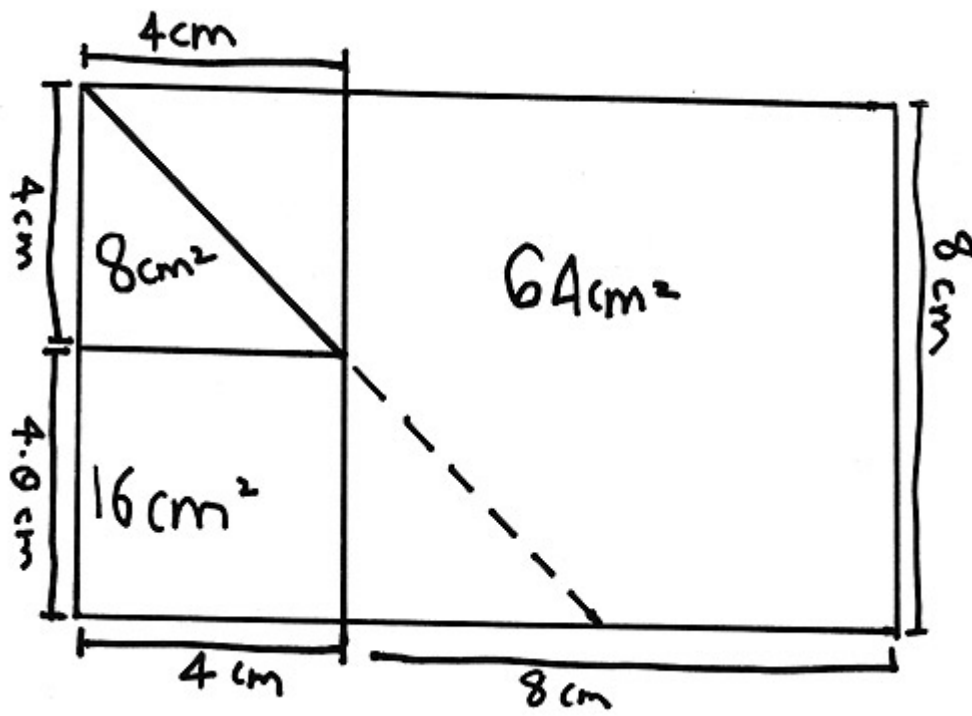
The teacher gives the student a ruler, shows her the shape below and asks the student to calculate the shape's area.



## Student Response

Georgia: If I draw a line from here to the bottom, I will make two rectangles. The area of the big square is 64 square centimetres.

Georgia then focuses on the second rectangle and deconstructs it into two squares. She calculates the area of the bottom square as 16 square centimetres. She calculates the top square as 16 square centimetres and halves this amount to work out the area of the triangle.



Georgia: So, altogether it's  $64 + 16 + 8$ , which is 88 square centimetres.