

$$M = \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

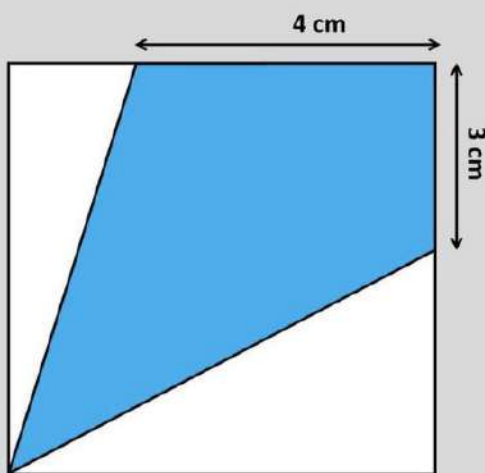
# Math League: the 9th week

The concept of measuring areas dates back to ancient Babylon, where it was used to assess land ownership for taxation purposes. Later, in 287 BC, the Greek mathematician Archimedes made significant contributions to understanding areas and perimeters. Although he wasn't the first to recognize these concepts, he was among the first to provide formal proofs. Archimedes also offered early proofs for the volume of spheres and their surface area

In geometry, the area is defined as the amount of space a flat surface occupies. It represents the number of unit squares needed to cover a surface completely. Areas are measured in square units, such as square feet, square centimeters, or square inches.

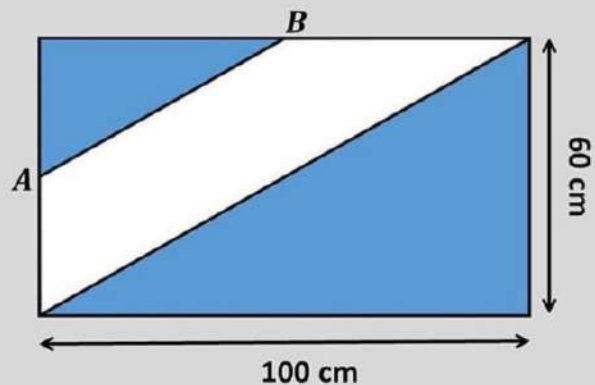
What is the area of the region shaded in blue?

The below figure is a square of perimeter 24 cm.



What is the area shaded in blue?

The line AB is drawn from the midpoints of both side.



The term "area" comes from the Latin word 'area,' which means a vacant piece of level ground. This term evolved to describe the amount of space within defined boundaries

Not all surfaces are simple shapes like rectangles, squares, or triangles. For composite figures, which are made up of multiple shapes, the total area is found by summing the areas of all individual

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$