

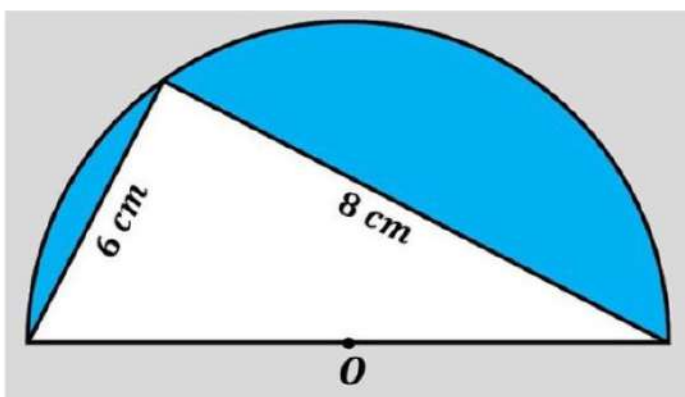
$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

Math League: the 2nd week

Back in ancient times, calculating areas was a bit like trying to measure a pizza with a spaghetti noodle—imprecise and messy. Egyptians used their fingers and feet, while Greeks tried drawing shapes with their trusty compasses and rulers. By the Middle Ages, mathematicians were practically inventing new shapes just to keep themselves entertained.

Fast forward to today, and we've got fancy formulas and computers to do the math, but sometimes it feels like we're still just guessing and checking with a calculator and a lot of caffeine. Who knew measuring areas could be such an epic saga?

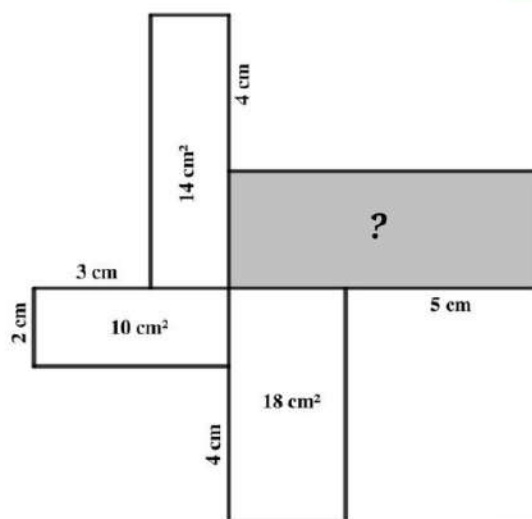
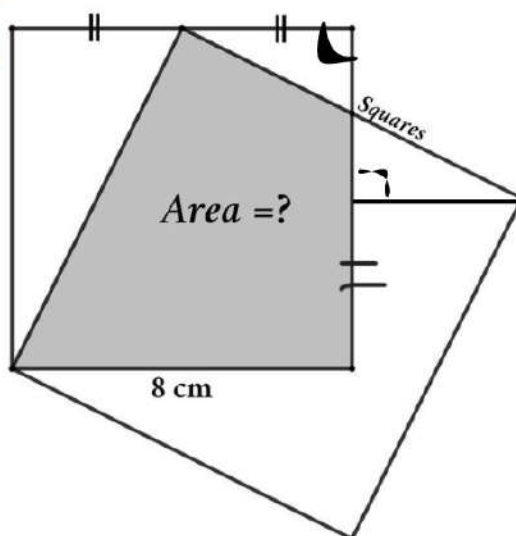
Take this problem and check whether you can beat ancient world mathematicians:



What is the surface of blue area?

Calculating area is vital in numerous everyday scenarios. For home improvement projects, knowing the area of walls helps you buy the right amount of paint, avoiding both waste and shortfalls. Gardeners use area calculations to determine how many seeds to plant or how much soil is needed for garden beds. In construction and interior design, accurate area measurements ensure that materials such as flooring, tiles, or countertops fit perfectly and minimize waste. Even in cooking, understanding the area of a baking pan allows you to adjust ingredient quantities to ensure your dish turns out just right. Architects and engineers use area calculations to design safe and efficient structures, while event planners use them to optimize space for seating and activities.

Give this a try :



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