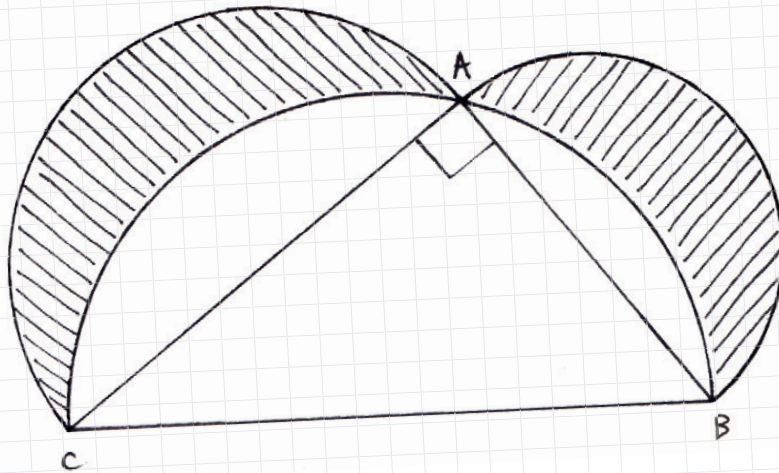


My favourite problem is...



Triangle ABC has a right-angle at A.

Semi-circles are drawn with BA, AC and BC as diameters as shown.

Given that $AC = 8$ and $BC = 10$, write down the value of one third of the total shaded area.

From Senior Team Mathematics Challenge (UKMT/FMSP)

This problem looks complicated but requires only a few simple techniques to reveal a remarkable solution and a 2500 year old theorem.