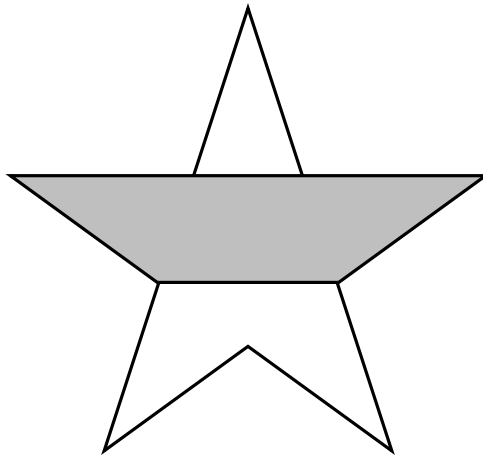# Monthly Maths Circle India Challenge

Due Date: 29 February 2024

Problem 1. A pentagram is a regular five-pointed star formed by connecting alternate vertices of a pentagon to create the points of the star. Show that the area of the shaded region of the regular pentagonal star in the picture below is exactly half of the total area of the star.

Problem 2. Construct a square on a square grid with an area five times that of a single square on the grid using only a straight edge and a pen or pencil.