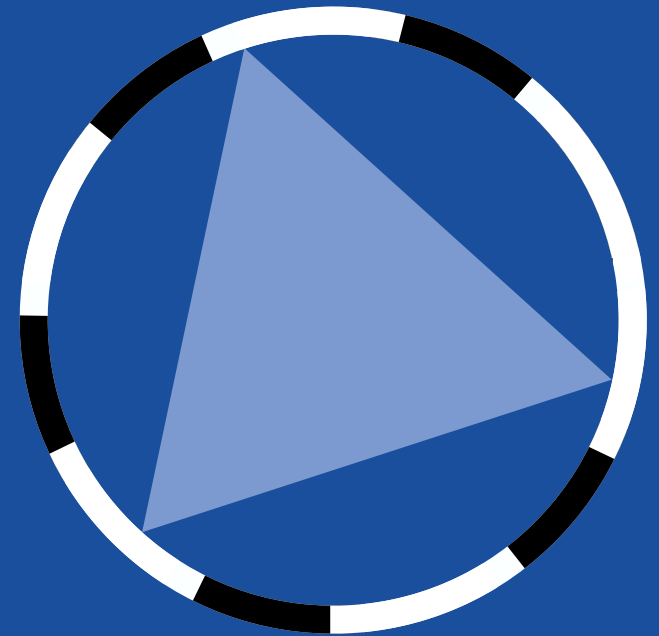


# Black & white circle

A circle of radius  $1/2$  is painted black and white, with the total length of the black region being 1.

Show that there must be three white points that form the vertices of an equilateral triangle.



Hints, solutions & more: [www2.warwick.ac.uk/stats/courses/opendaypuzzles](http://www2.warwick.ac.uk/stats/courses/opendaypuzzles)

**Undergraduate Course Programme:**

[www2.warwick.ac.uk/stats/courses](http://www2.warwick.ac.uk/stats/courses)