

Hong Kong Mathematics Olympiad 2017/18

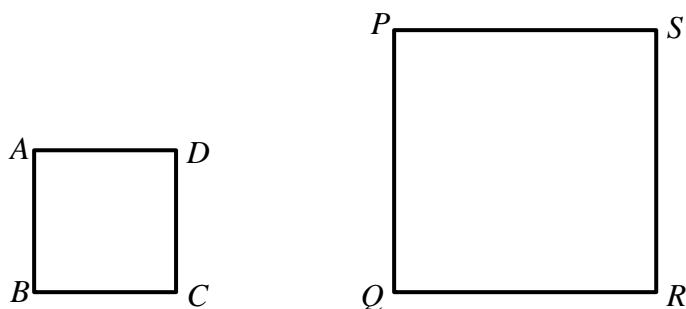
Heat Event (Geometric Construction)

香港数学竞赛 2017/18

初赛（几何作图）

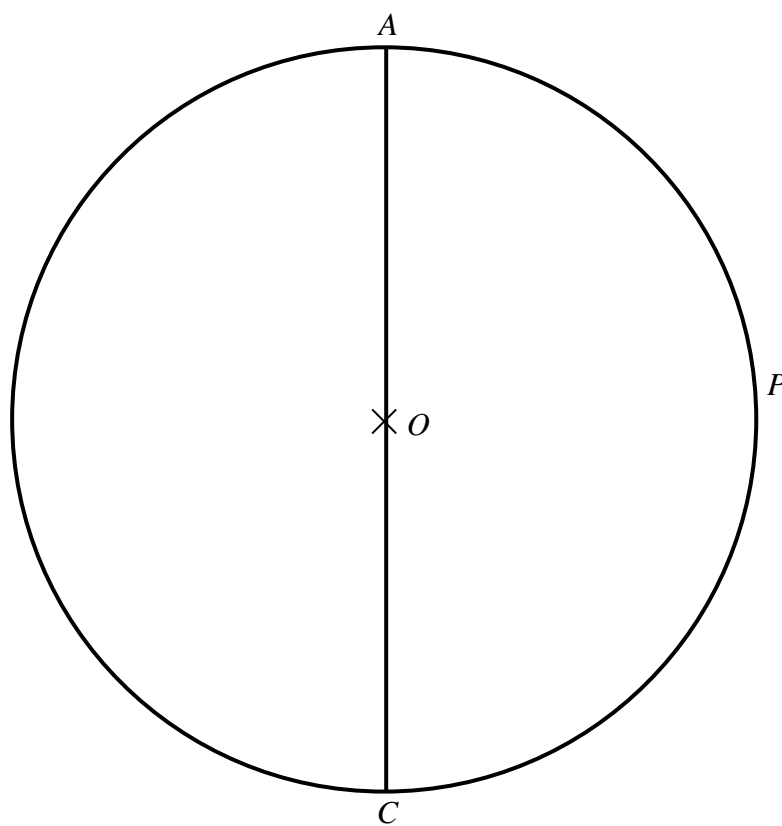
1. Construct a square whose area is equal to the sum of the areas of the squares $ABCD$ and $PQRS$ shown below.

求作一个正方形使得其面积等如下图的两个正方形 $ABCD$ 及 $PQRS$ 的面积之和。

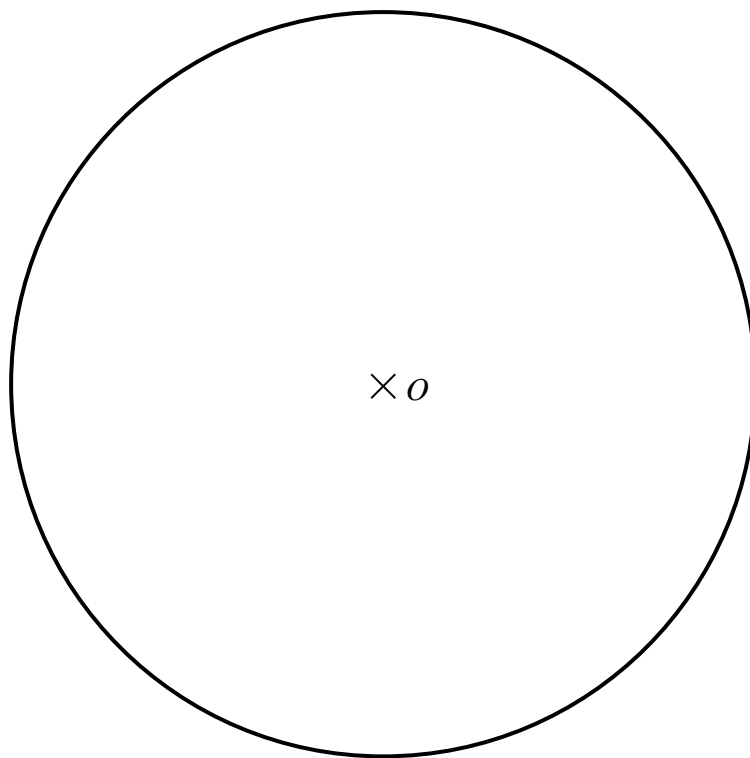


2. Given that AC is a line segment passing through the centre O of a circle, as shown in the figure below. Construct a kite $ABCD$ such that $\angle BAD = 2 \times \angle BCD$ and B, D lies on the circle APC .

已知 AC 是一条通过一个以 O 作圆心的圆的线段，如下图所示。求作一个鸢形 $ABCD$ 使得 $\angle BAD = 2 \times \angle BCD$ 及 B, D 分别位于圆 APC 上。



3. Construct a regular octagon $ABCDEFGH$ on a circle with centre O .
求作一个以 O 为圆心的圆上的正八边形 $ABCDEFGH$ 。



END
完