

Hong Kong Mathematics Olympiad 2017/18

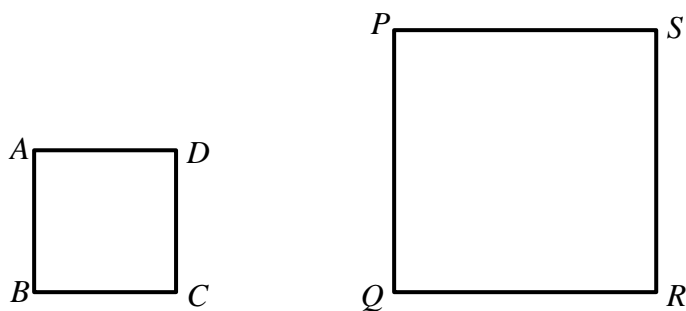
Heat Event (Geometric Construction)

香港數學競賽 2017/18

初賽（幾何作圖）

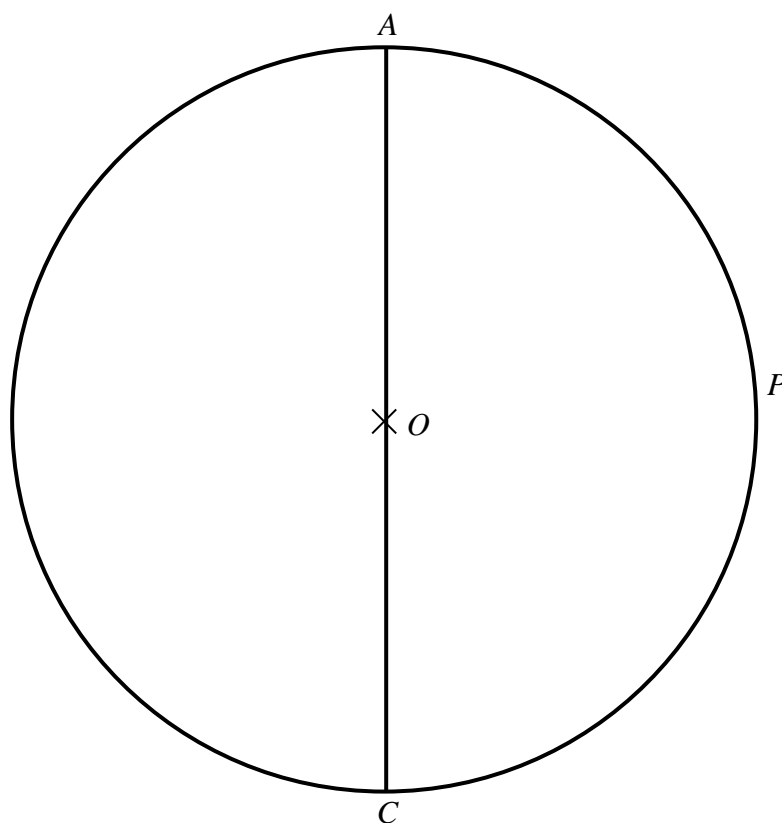
1. Construct a square whose area is equal to the sum of the areas of the squares $ABCD$ and $PQRS$ shown below.

求作一個正方形使得其面積等如下圖的兩個正方形 $ABCD$ 及 $PQRS$ 的面積之和。

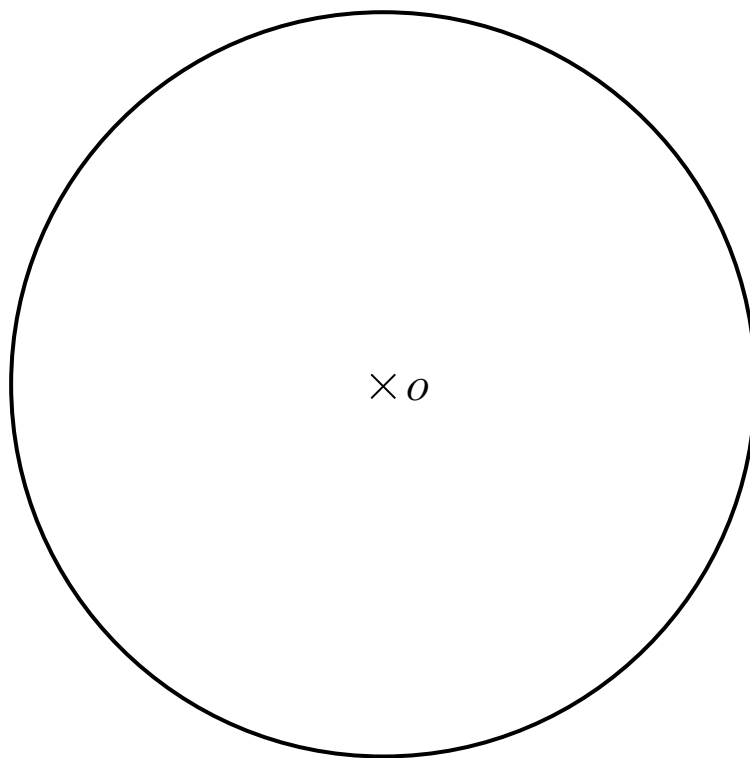


2. Given that AC is a line segment passing through the centre O of a circle, as shown in the figure below. Construct a kite $ABCD$ such that $\angle BAD = 2 \times \angle BCD$ and B, D lies on the circle APC .

已知 AC 是一條通過一個以 O 作圓心的圓的線段，如下圖所示。求作一個鳶形 $ABCD$ 使得 $\angle BAD = 2 \times \angle BCD$ 及 B, D 分別位於圓 APC 上。



3. Construct a regular octagon $ABCDEFGH$ on a circle with centre O .
求作一個以 O 為圓心的圓上的正八邊形 $ABCDEFGH$ 。



END
完