

Hong Kong Mathematics Olympiad 2016/17

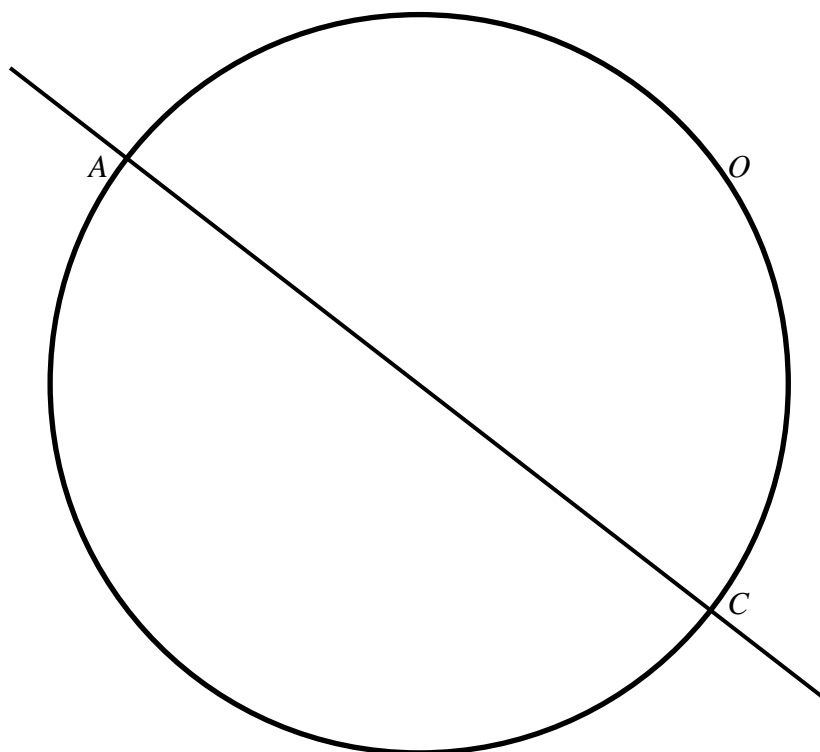
Heat Event (Geometric Construction)

香港數學競賽 2016/17

初賽（幾何作圖）

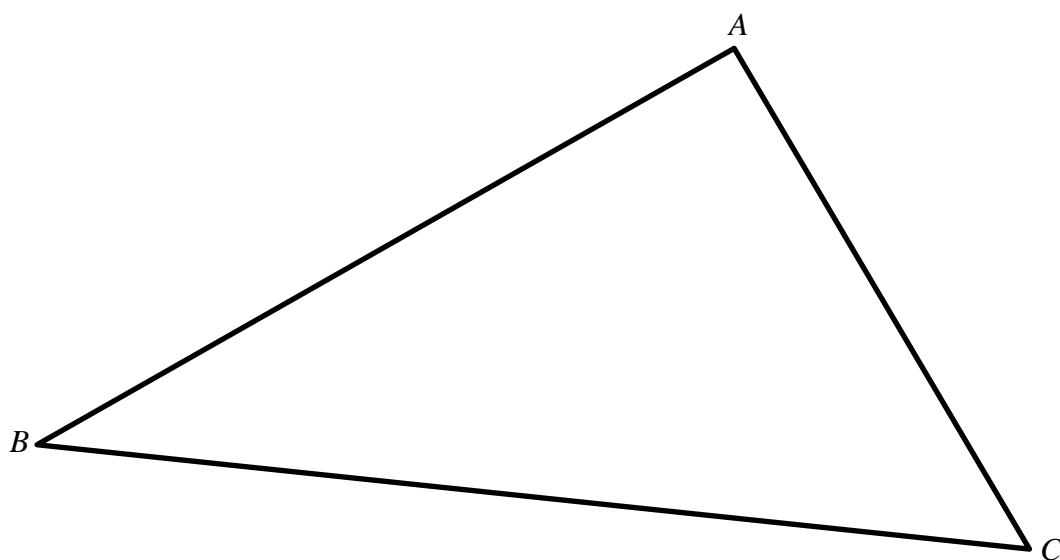
1. As shown in the figure below, given that O is a circle with a diameter AC . Construct two points B, D on the circle such that $ABCD$ form a square.

如下圖，已知一圓 O 的其中一條直徑為 AC 。求作圓上兩點 B, D 使得 $ABCD$ 成為一個正方形。



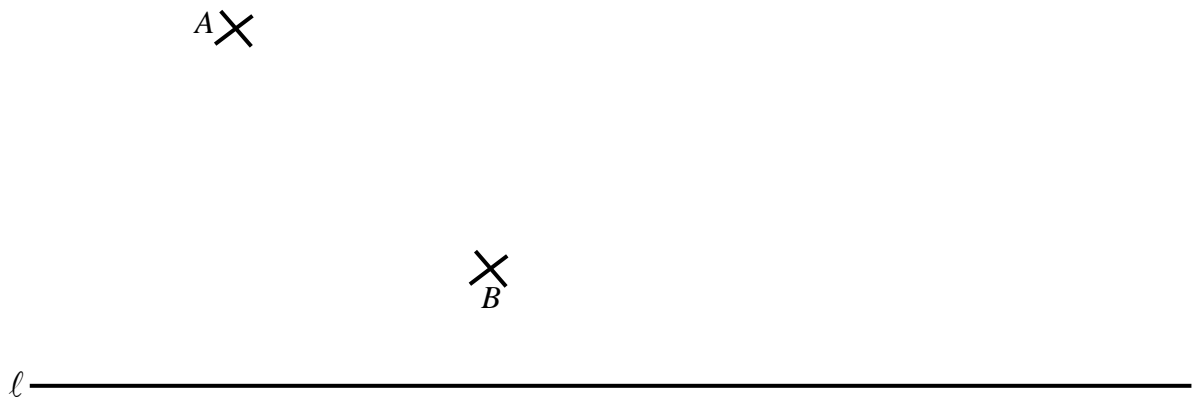
2. Given $\triangle ABC$ as shown in the figure below. Construct a point M such that the line segments MA, MB, MC will divide the area of $\triangle ABC$ into 3 equal parts.

已知 $\triangle ABC$ ，如下圖所示。求作一點 M ，使得 MA 、 MB 、 MC 三條線段將 $\triangle ABC$ 的面積三等分。



3. Given two points A , B and a straight line ℓ as shown in the figure below. Construct a circle which passes through A and B , and is tangent to the straight line ℓ .

已知 A 、 B 兩點和直線 ℓ ，如下圖所示。求作一圓過 A 、 B 兩點且與 ℓ 相切。



END

完