

Hong Kong Mathematics Olympiad 2016/17

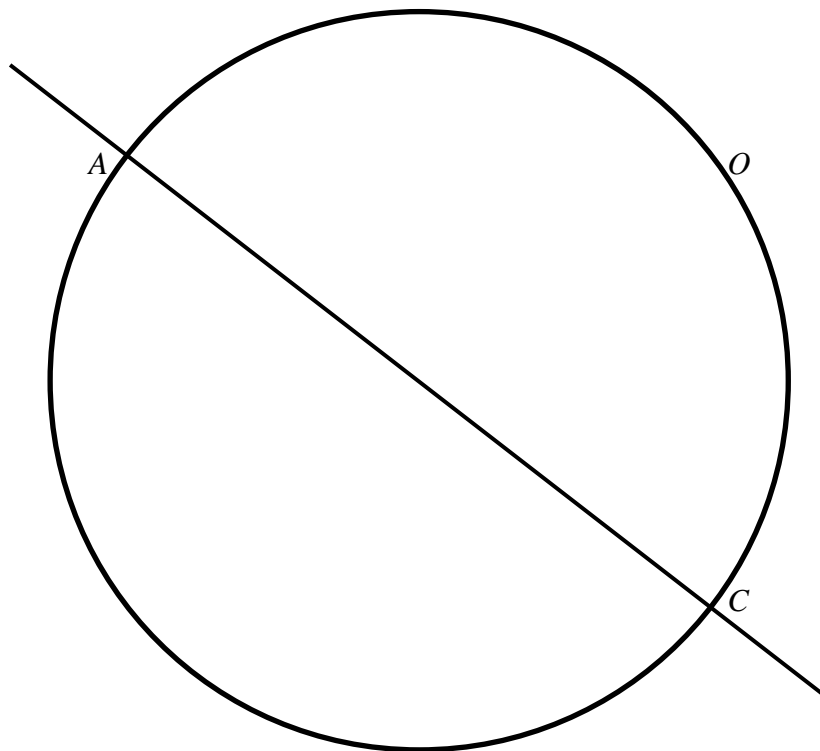
Heat Event (Geometric Construction)

香港数学竞赛 2016/17

初赛（几何作图）

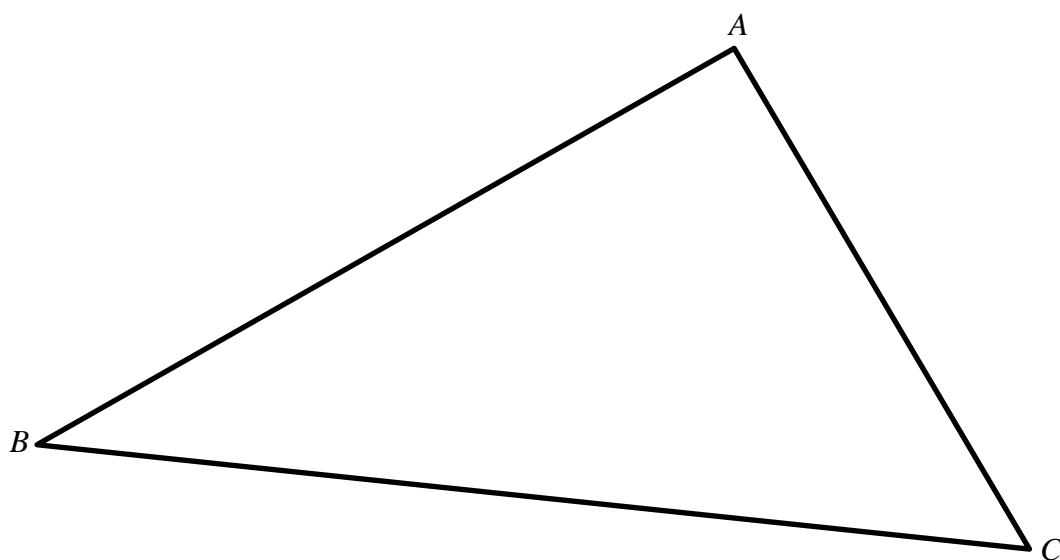
1. As shown in the figure below, given that O is a circle with a diameter AC . Construct two points B, D on the circle such that $ABCD$ form a square.

如下图，已知一圆 O 的其中一条直径为 AC 。求作圆上两点 B, D 使得 $ABCD$ 成为一个正方形。



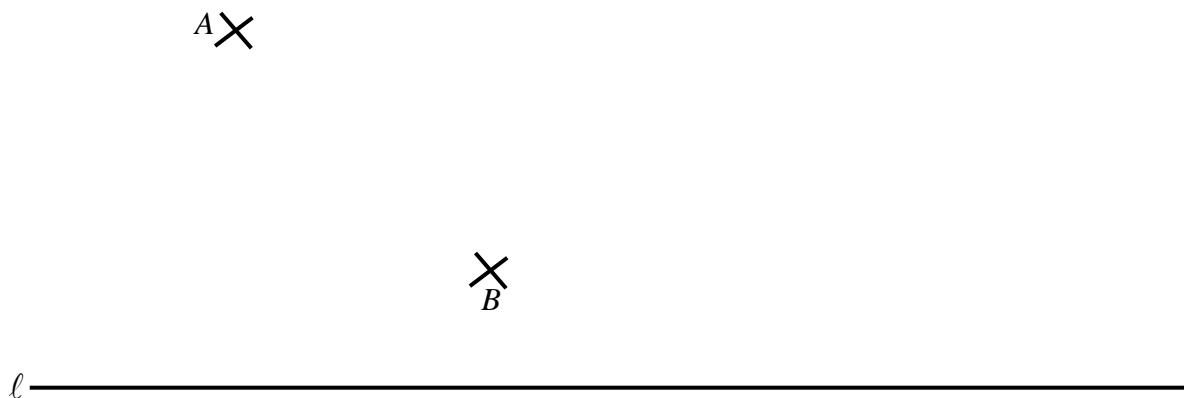
2. Given $\triangle ABC$ as shown in the figure below. Construct a point M such that the line segments MA, MB, MC will divide the area of $\triangle ABC$ into 3 equal parts.

已知 $\triangle ABC$ ，如下图所示。求作一点 M ，使得 MA 、 MB 、 MC 三条线段将 $\triangle ABC$ 的面积三等分。



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 两点和直线 ℓ ，如下图所示。求作一圆过 A 、 B 两点且与 ℓ 相切。



END

完