

Hong Kong Mathematics Olympiad 2012 / 2013

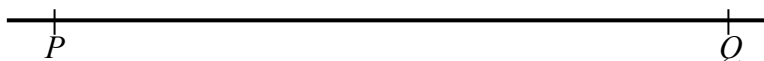
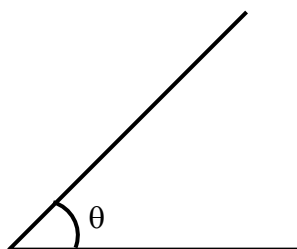
Heat Event (Geometric Construction)

香港数学竞赛 2012 / 2013

初赛（几何作图）

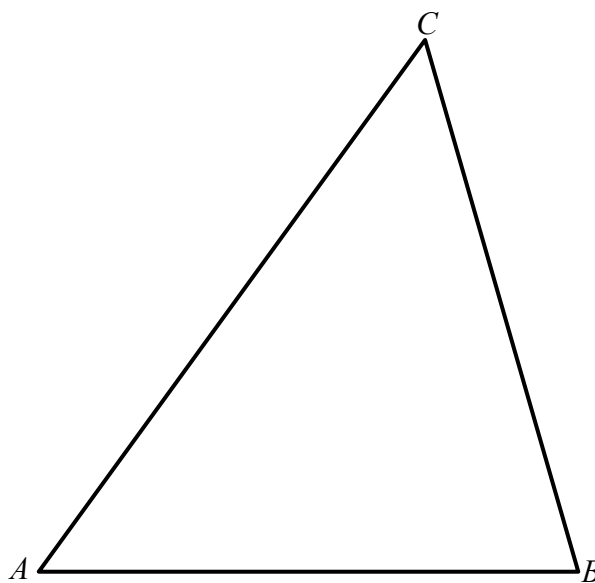
1. Line segment PQ and an angle of size θ are given below. Construct the isosceles triangle PQR with $PQ = PR$ and $\angle QPR = \theta$.

下图所示为线段 PQ 及角 θ 。试构造一个等腰三角形 PQR ，其中 $PQ = PR$ 及 $\angle QPR = \theta$ 。



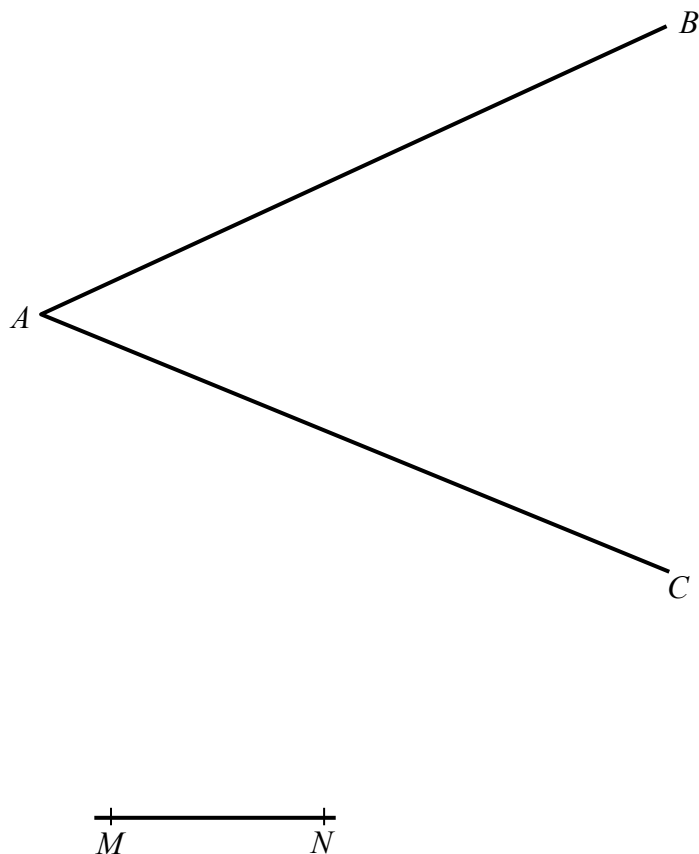
2. Construct a rectangle with AB as one of its sides and with area equal to that of $\triangle ABC$ below.

试构造一个面积与下图所示的 $\triangle ABC$ 面积相等的长方形，长方形其中一边为 AB 。



3. The figure below shows two straight lines AB and AC intersecting at the point A . Construct a circle with radius equal to the length of the line segment MN so that AB and AC are tangents to the circle.

下图所示为两相交于 A 点的直线 AB 及 AC 。试构造一半径等于线段 MN 的圆使得 AB 及 AC 均为该圆的切线。



END
完